

## Council Briefing Agenda

**Date:** Wednesday, 30 August, 2017

**Time:** 9:00 am

**Location:** Council Chamber  
Forum North, Rust Avenue  
Whangarei

**Elected Members:** Her Worship the Mayor Sheryl Mai  
(Chairperson)  
Cr Stu Bell  
Cr Crichton Christie  
Cr Vince Cocurullo  
Cr Tricia Cutforth  
Cr Shelley Deeming  
Cr Sue Glen  
Cr Jayne Golightly  
Cr Phil Halse  
Cr Cherry Hermon  
Cr Greg Innes  
Cr Greg Martin  
Cr Sharon Morgan  
Cr Anna Murphy

For any queries regarding this meeting please contact  
the Whangarei District Council on (09) 430-4200.

**1. Apologies**

**2. Reports**

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**3. Closure of Meeting**

## LTP 2018-28 Wastewater Briefing Report

**Meeting:** Council Briefing  
**Date of meeting:** 30 August 2017  
**Reporting officer:** Andrew Carvell (Manager Waste and Drainage)

### **1 Purpose**

To discuss the Wastewater Activity as part of 2018-28 Long Term Plan development.

### **2 Background**

All information is set out in the Wastewater Briefing report in attachment 1.

### **3 Attachment**

LTP 2018-28 Wastewater Briefing Report



# Report

## Activity Group Briefing

Wastewater

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# 1 Where we are now

## 1.1 Activity overview

We provide wastewater services for the collection, treatment and disposal of residential, commercial and industrial wastewater. Under the *Local Government Act 2002*, wastewater services are a “core service”. Significant legislative requirements are:

- A requirement to assess, from a public health perspective, the adequacy of wastewater services available to communities, including the actual or potential consequences of discharges (*Health Act 1956, LG Act 2002 s125-126*)

Wastewater services are provided to the locations shown in **Appendix A**. The wastewater activity’s primary contribution to our community outcomes is summarised in **Table 1**.

*Table 1: Wastewater activity contribution to community outcomes*

Community Outcome	Activity Contribution	Commentary
Clean, healthy and valued environment	<b>HIGH</b>	By treating wastewater to agreed standards, discharges from wastewater treatment plants have no detrimental environmental impact.
Vibrant and healthy communities	<b>MEDIUM</b>	Appropriate collection, treatment and disposal of sewage assists our community to be healthy by avoiding exposure to potential health risks.
Well managed growth	<b>MEDIUM</b>	Growth is supported through appropriate planning mechanisms to ensure the provision of sufficient and appropriate wastewater systems for the existing and growth communities.

Wastewater assets have an aggregate value of **\$374M**, representing 14% of WDC’s asset base.

## 1.2 Current Levels of Service, and performance measures

Our current Level of Service (LOS) statement is presented in **Table 2**. For 2018-28 we are proposing a minor adjustment to limit the LOS to declared service areas.

*Table 2: LOS statements*

Current 2015-25	Proposed 2018-28
Council will collect, treat and dispose of wastewater through a reliable wastewater network which is managed to ensure blockages, breaks or spillages are kept to a minimum.	In declared service areas, Council will collect, treat and dispose of wastewater through a reliable wastewater network which is managed to ensure blockages, breaks or spillages are kept to a minimum.
Council will provide well-maintained and accessible public toilets in high use areas.	Council will provide well-maintained and accessible public toilets in high-use areas

Historical performance measures supporting the LOS are presented in **Appendix B**. They show:

- we had more sewage overflows than we should have;
- satisfaction with wastewater services is on-target;
- complaints are low; and
- customers are generally satisfied or even impressed with our response to wastewater complaints and requests, which indicates that our *reactive* maintenance is working well.

We are proposing some changes to our current performance measures as follows:

- additional measures reflective of statutory obligations
- additional measure for trade waste

- additional measures specifying renewal targets for critical infrastructure

The proposed 2018-28 performance measures are presented in **Appendix C**.

### 1.3 Current state of assets / condition assessments / capacity

#### Current state of assets

As we develop a better understanding of asset condition through CCTV inspections, it has become apparent that a significant proportion of our assets will not reach their “nameplate” life. Our assets are deteriorating faster than previously expected. So far, we’ve inspected 97 km of mains (16% of the total 621 km). Key findings are:

- we have physically identified **\$3.7M** worth of in-service wastewater mains currently in a failure condition requiring renewal
- modelling using this condition data predicts **\$26M** worth of in-service mains to be in a failure condition (14% of mains)
- pipes installed in the last 20 years have a higher failure rate than those from previous decades

It’s unrealistic to expect this renewal backlog to be rectified immediately. If we spread the backlog over LTP years 1-10 we’ll need **\$3.9M** per annum to renew sewer mains (**Figure 1**), noting that Council is potentially exposed to overflow and associated damage risks during this time. Including other assets, we expect the overall renewal requirement to be in the order of **\$7M** per annum for LTP years 1-10 (**Table 3** and **Appendix D**).

*Table 3: Wastewater asset values*

Asset Group	Value	Pro-rata Depreciation	Annual Depreciation	Estimated renewals backlog	Average renewal LTP Years 1-10
Sewer Main	191,000,000	91,000,000	2,690,000	26,400,000	3,930,000
WWTP	57,300,000	26,200,000	1,180,000	1,140,000	755,000
Sewer Lift Station	34,700,000	12,800,000	930,000	865,000	625,000
Sewer Service Line	34,600,000	12,600,000	355,000	8,770,000	1,280,000
Sewer Manhole	34,200,000	15,200,000	427,000	1,200,000	185,000
Miscellaneous	15,700,000	3,890,000	473,000	80,000	200,000
Building (toilets)	6,680,000	1,920,000	117,000	51,000	26,000
<b>TOTALS</b>	<b>\$374,180,000</b>	<b>\$163,610,000</b>	<b>\$6,172,000<sup>1</sup></b>	<b>\$38,506,000</b>	<b>\$7,001,000</b>

<sup>1</sup> Capital expenditure must match or exceed depreciation to meet our essential services benchmark (*Local Government Financial Reporting and Prudence Regulations 2014*)



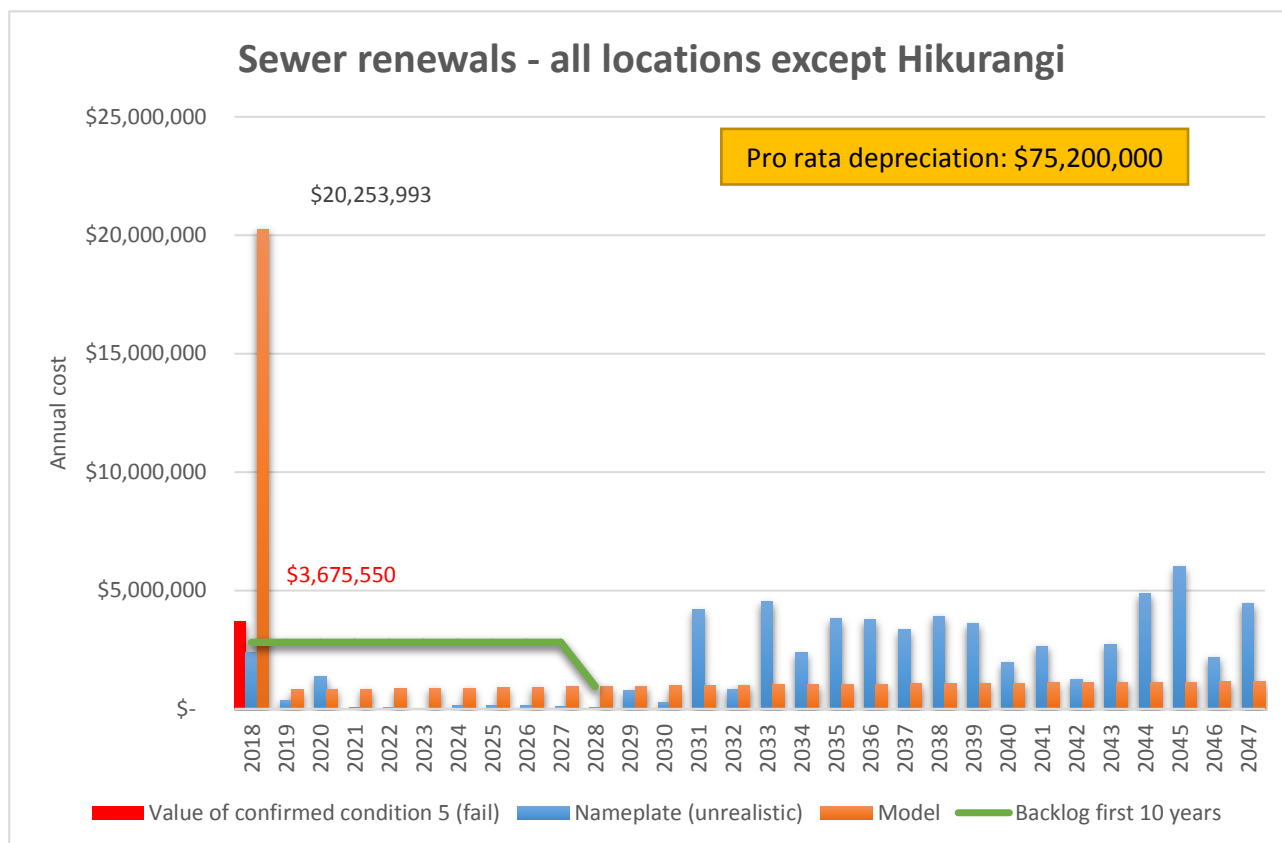


Figure 1: Wastewater Main Renewals 2018-2047

### Condition assessments

Specific funding for critical asset inspections was not provided in 2015-16, so the associated performance target was not achieved. Some condition assessments were undertaken in 2016/17. Funding for inspections is necessary to properly manage our assets; condition assessments will require an ongoing operating budget of \$100,000 per annum over LTP years 1-10.

### Capacity

We have been progressively modelling and validating the Whangarei City sewer system. A model is being developed for Ruakaka; additional network models are required to assess other schemes. Capacity upgrades are required in various locations throughout the district, to avoid more sewage overflows than our performance targets allow.

Discharges from the Whangarei, Ruakaka, Ngunguru and Waipu WWTPs are approaching or exceeding consent conditions.<sup>2</sup> This will require plant upgrades and/or renegotiation of consent conditions.

## 1.4 Funding levels

Substantial investment in the wastewater activity over the last ten years (**Appendix E**) has seen a dramatic improvement in ratepayer satisfaction. Nonetheless, a challenging renewals backlog remains.

The wastewater activity is partially funded through developer contributions. Historical funding levels are summarised in **Table 4**.

<sup>2</sup> Whangarei: balancing suspended solids / ammonia / BOD is problematic. Ruakaka: approaching disposal rate limits. Ngunguru: ammonia nitrogen is non-compliant. Waipu: suspended solids are non-compliant, approaching disposal rate limit. Oakura: nitrogen was non-compliant but consent conditions were renegotiated.

*Table 4: Funding levels*

Year	OPEX		CAPEX		Reserves contribution
	Income	Expenditure	Income	Expenditure	
2012-13	14,448	6,715	8,909	12,424	4,218
2013-14	15,923	7,119	1,208	4,676	5,336
2014-15	15,394	7,418	-937	7,039	0
2015-16	16,102	7,207	-1,940	6,955	0

## 1.5 Environmental Scan

### Growth

The Whangarei area of benefit is expanding. Growth will trigger upgrades to various treatment facilities, pump stations and trunk mains, including Ruakaka, One Tree Point, Waipu/Langs Beach and Oakura schemes.

The adoption of pressure sewer technology has resulted in lower HUE (household unit equivalent) flows in Ruakaka and One Tree Point.

### Climate change

Climate change will likely increase stormwater infiltration into the sewer network. This timeframe will generally coincide with renewals; when old leaky pipes are replaced, infiltration should be significantly reduced.

In coastal areas, rising sea levels may inundate septic disposal areas thus rendering such systems ineffective. From a public health perspective, such areas may require sewerage schemes to be developed.

## 1.6 High level strategic direction

Key challenges for the wastewater network include:

- addressing our renewals backlog;
- upgrading treatment plants to comply with consent conditions;
- undertaking wastewater assessments throughout the District to satisfy statutory responsibilities; and
- continuing to improve our asset knowledge.

The timeline for addressing these challenges is shown diagrammatically in **Figure 2**.

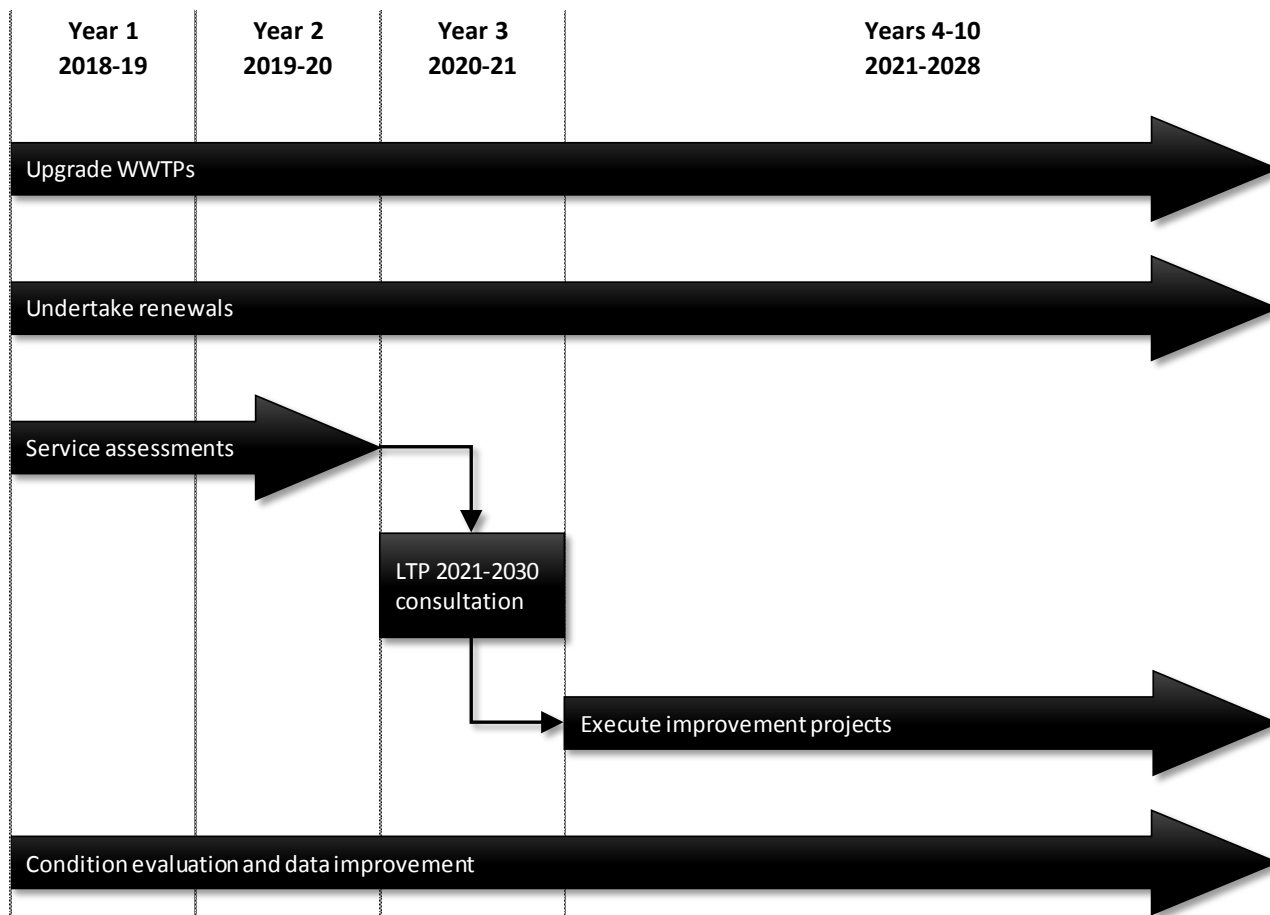


Figure 2: Wastewater strategy

## 1.7 Progress and changes from the last LTP (15-25)

Asset Management Policy and Strategy documents have developed based on IIMM. These are being used in the development of the 2018 Wastewater AMP.

From condition data, we have developed a survival model, which estimates the proportion of pipes surviving to a given age. In this current AM Plan there is a much greater emphasis on renewals.

## 2 The next 10-30 years

### 2.1 Issues

Keys issues are, in order of priority:

1. Securing adequate funding.
2. Upgrading WWTPs to satisfy consent conditions.
3. Addressing the renewals backlog.
4. Undertaking water services assessments as per statutory requirements.
5. Gathering adequate asset data to support model development.

## 2.2 Risks

### Deferral of renewals

We have a very large renewal backlog. Deferring renewals will reduce levels of service, increase maintenance costs, expose Council to the risk of prosecution and ratepayer dissatisfaction if overflows occur, and incur additional costs if renewals must be conducted under emergency conditions.<sup>3</sup>

### Vested assets

Historical condition monitoring has identified that pipes installed in the last 20 years have a higher failure rate than those from previous decades. This is coincident with a decline in public construction and an increase in vested assets. Investment in construction supervision is recommended to reduce the risk of inheriting assets that become a burden to ratepayers.

### Coastal inundation

Sea level rise will eventually render service provision to some communities unsustainable (Society of Local Government Managers, 2015). A considered response, incorporating all Council service areas, should be addressed by the 30 year Infrastructure Strategy.

### Growth

The One Tree Point / Ruakaka area has potential for rapid growth. If actual growth is greater than our projections, the wastewater system will quickly run out of capacity and upgrades will need to be brought forward.

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<sup>3</sup> Research shows that optimisation analysis can result in between 15% and 25% long-term cost savings compared to reactive maintenance planning (Office of the Auditor-General, 2014)

## 2.3 Key upcoming/proposed projects

The identification and scoping of LTP projects is a work in progress and is not complete at this stage.

Project title	Description	Business need (issue/opportunity)	Area/Ward	Year(s)	Total cost (\$000)	LoS
Sewer renewals	Sewer main renewals	Risk of overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. If pipes fail, repair / replacement costs will be much higher if performed under emergency conditions. HIGH risk. <sup>4</sup>	District wide	1-10	28,060	Table C-1 PM 3, 5, 8, 9, 10, 11, 12
Whangarei Heads Sewerage System Upgrade	Increase in pumping capacity within Whangarei Heads scheme. This include rising mains and pump stations upgrade from Parua Bay to Onerahi.	Growth	Whangarei Heads	2-10	9,141	Table C-1 PM 8, 9
Rising main renewals	Rising main renewals	Risk of overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. If pipes fail, repair / replacement costs will be much higher if performed under emergency conditions. HIGH risk. <sup>4</sup>	District wide	1-10	9,010	Table C-1 PM 3, 5, 8, 9, 10, 11, 12
Waipu Cove-Langs Beach Wastewater Network Improvements	Increase capacity of the Waipu Cove/Langs Beach trunk sewerage systems to accommodate growth in the communities	Growth	Langs Beach	2-6	8,845	Table C-1 PM 8, 9
Ruakaka Wastewater Treatment Plant Upgrade			Ruakaka	3-6	6,433	Table C-1 PM 8
Sewer pump station renewals	Sewer pump station renewals	Risk of overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. If pump stations fail, repair / replacement costs will be much higher if performed under emergency conditions. HIGH risk. <sup>4</sup>	District wide	1-10	6,305	Table C-1 PM 3, 5, 8, 9, 10, 11, 12
Hikurangi Sewer Network Upgrade	Pure renewals of Hikurangi wastewater reticulation network. Stage 1 which involves construction of pump stations and rising mains plus gravity sewer modification is currently underway (2016-18). Next stage (this scope) involves renewal of the reticulation.	Renewals	Hikurangi	2-4	6,095	Table C-1 PM 8, 9
WWTP renewals	Wastewater Treatment Plant renewals	Risk of overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. HIGH risk. <sup>4</sup>	District wide	1-10	6,012	Table C-1 PM 3, 5, 8, 9, 10, 11, 12

<sup>4</sup> Evaluated in accordance with WDC's *Risk Management Framework* (Whangarei District Council, 27 April 2016). HIGH and MEDIUM risks are considered intolerable, requiring active management by operational leaders

Project title	Description	Business need (issue/opportunity)	Area/Ward	Year(s)	Total cost (\$000)	LoS
Maunu sewer capacity increase	Increase in network capacity for Kamo and Maunu	Level of service / growth	Denby	5-6	4,162	Table C-1 PM 8, 9
Whangarei WWTP Odour Control	Covering areas of infrastructure within the WWTP considered to be major contributors to odour issues and extracting the odour through fans to constructed biofilters.	Level of service	Okara	1-2	3,718	Table C-1 PM 11
Sewer service line renewals	Service line renewals (from property boundary to main)	Risk of pipe failure resulting in overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. If pipes fail, repair / replacement costs will be much higher if performed under emergency conditions.	District wide	1-10	3,230	Table C-1 PM 3, 8, 9, 10, 11, 12
Ruakaka Wastewater Reuse	Supplying treated effluent for Ruakaka Racecourse irrigation. Includes construction of effluent polishing plant, pump station, storage chambers and rising main from WWTP to the racecourse.	Growth	Ruakaka	1-3	2,185	
Sewer manhole renewals	Sewer manhole renewals	Risk of failure resulting in blockages, overflows, consent violations and public complaints. Increased operational costs to manage deteriorated assets. If manholes fail, repair / replacement costs will be much higher if performed under emergency conditions. HIGH risk. <sup>4</sup>	District wide	1-10	1,830	Table C-1 PM 3, 5, 8, 9, 10, 11, 12
Waipu Wastewater Treatment Plant Upgrade	Upgrade of the WWTP and constructing either new rapid infiltration basins or subsurface injection wells	Level of service	Waipu	4	1,353	Table C-1 PM 8
Condition assessments	Program of inspections to evaluate asset condition	To effectively manage assets and target renewal funds, asset condition must be periodically evaluated.	District wide	1-10	1,000	Table C-1 PM 3, 4
Wastewater Consent Renewals	Investigation into requirements to renew consents at the same standards as existing consents before they lapse. This project is an allowance anticipated for professional work and will either renew the consent or identify work required to allow the consent to be renewed.	Risk of consent lapsing and the WWTP cannot be used or will result in consent violations or unlawful activity. HIGH risk. <sup>4</sup>	District wide	2-10	957	Table C-1 PM 8

## 2.4 Funding policies

As per the Asset Management Policy, funding should focus on renewals/repairs before new projects / balanced budget. Funding should otherwise align with the issues identified in section 2.1.

## 3 Council direction needed:

### 3.1 High-level strategy for this LTP (18-28)

Our proposed strategy is outlined in section 1.6. It aligns with the Asset Management Policy and is based on asset needs. The key direction required is whether enhanced funding will be provided for the identified renewals and other requirements.

### 3.2 Specific points requiring council direction

Endorsement of proposed LOS statement

Endorsement of proposed performance measures

In-principle funding for the above (subject to budget envelopes)

Community consultation to determine appetite for retrofit of wastewater quality devices

## 4 References

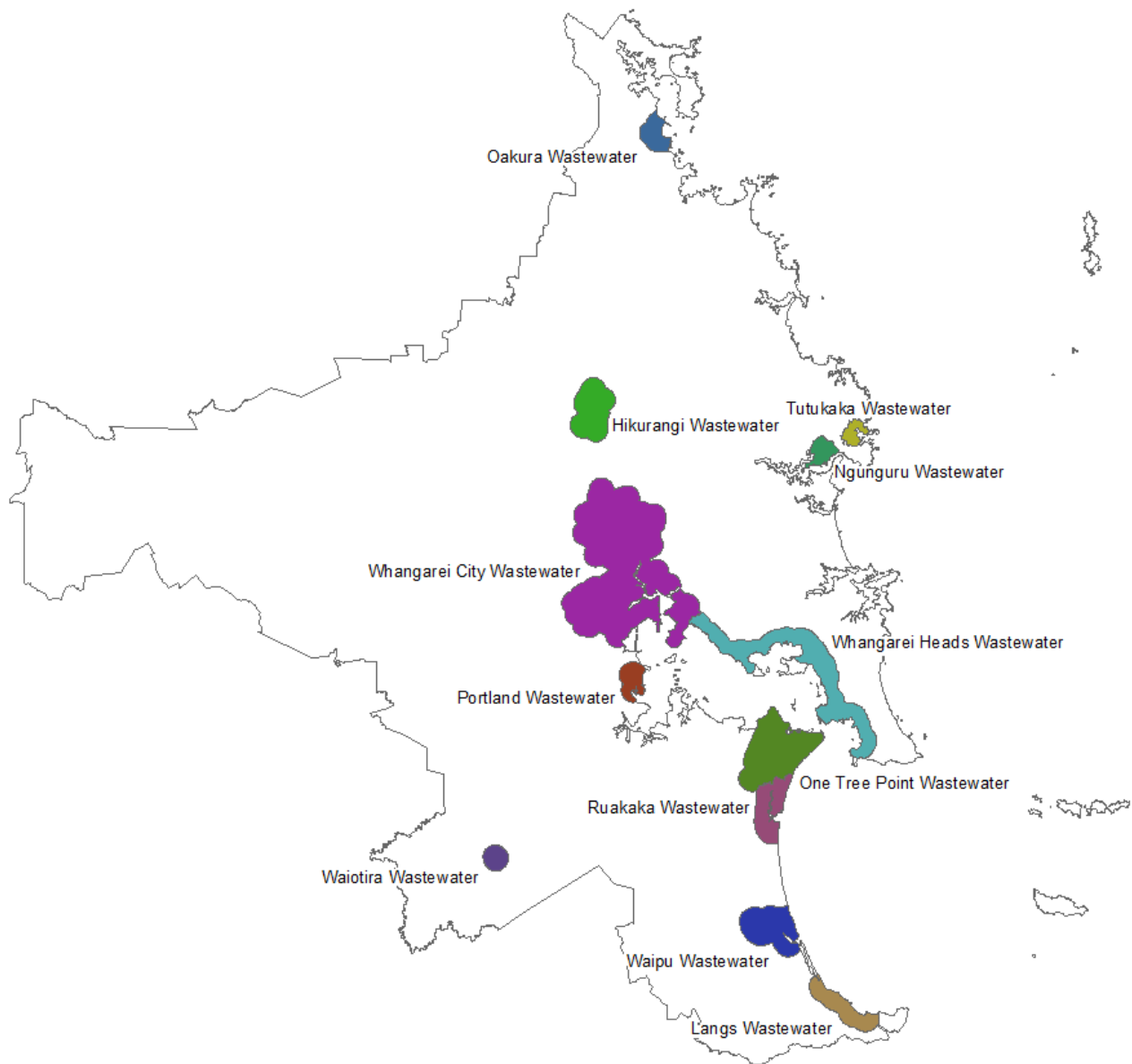
**Institute of Public Works Engineering Australasia. 2015.** *International Infrastructure Management Manual*. 2015. ISBN No: 0-473-10685-X.

**Office of the Auditor-General. 2014.** *Water and roads: Funding and management challenges*. 2014. ISBN 978-0-478-44201-4.

**Society of Local Government Managers. 2015.** *Climate change - local government can make a difference*. 2015.

**Whangarei District Council. 27 April 2016.** *Risk Management Framework*. 27 April 2016. RISK-1727745005-20.

## Appendix A Wastewater Service Areas





## Appendix B Historical Performance Measures

Table B-1: Current Performance Measures – wastewater services

Item	Performance Measure	Type <sup>a</sup>	2012-13 (Target) Result	2013-14 (Target) Result	2014-15 (Target) Result	2015-16 (Target) Result
1	Compliance with the Council's resource consents for discharge from the wastewater system, measured by the number of: a) abatement notices b) infringement notices c) enforcement orders d) convictions	MPM	New MPM			(0) 0
2	The number of dry weather sewerage overflows from the territorial authority's sewerage system, expressed per 1000 sewerage connections to that sewerage system	MPM	New MPM			(≤1.35) 2.24
3	Residents' satisfaction with sewerage reticulation, treatment and disposal services	LTP	(60%) 62%	(65%) 65%	(70%) 76%	(70%) 70%
4	The total number of complaints received by the territorial authority about any of the following: a) sewage odour; b) sewerage system faults; c) sewerage system blockages; and d) the territorial authority's response to issues with its sewerage system,  expressed per 1000 connections to the territorial authority's sewerage system.	MPM	New MPM			(< 20) 7.7
5	Where the territorial authority attends to sewerage overflows resulting from a blockage or other fault in the territorial authority's sewerage system, the following median response times measured:					
	a) attendance time: from the time that the territorial authority receives notification to the time that service personnel reach the site; and	MPM	New MPM			(≤1 hr) 31 min
	b) resolution time: from the time that the territorial authority receives notification to the time that service personnel confirm resolution of the blockage or other fault.	MPM	New MPM			(≤7 hr) 1.5 hr
6	Continuing ISO Accreditation for "Collection, conveyance and treatment of wastewater and wastewater" to comply with resource consent conditions	TPM				(Yes) Yes
7	% of customers called back who found service acceptable or impressed	TPM	(-) <sup>b</sup> 95%	(-) <sup>b</sup> 100%	(-) <sup>b</sup> 97%	(70%) 97%

### Notes

<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

<sup>b</sup> No target set.

*Table B-2: Current Performance Measures – public toilets*

Item	Performance Measure	Type <sup>a</sup>	2012-13 (Target) Result	2013-14 (Target) Result	2014-15 (Target) Result	2015-16 (Target) Result
1	Residents' satisfaction with public toilets	LTP	(>75%) 81%	(>75%) 82%	(>75%) 86%	(>75%) 89%

Notes

<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

## Appendix C Proposed 2018-28 Performance Measures

*Table C-1: Level of service statement: In declared service areas, Council will collect, treat and dispose of wastewater through a reliable wastewater network which is managed to ensure blockages, breaks or spillages are kept to a minimum (strategic objectives: Clean, healthy and valued environment, Vibrant and healthy communities)*

Item	Performance measure	Type <sup>a</sup>	Targets			
			2018-19	2019-20	2020-21	2021-28
1	A water services assessment is undertaken every 6 years (expressed as a proportion of the district's population covered by the assessment)	TPM	20%	40%	60%	100%
2	Wastewater models are revised every 6 years (expressed as a proportion of the district's population within declared service areas)	TPM	20%	40%	60%	100%
3	Essential services benchmark (capital expenditure ÷ depreciation) is achieved	TPM	≥1.0	≥1.0	≥1.0	≥1.0
4	% of critical asset base inspected per year for condition assessment	TPM	15%	15%	15%	15%
5	Critical assets with identified structural condition grade 5 (fail) are renewed or repaired within 24 months of identification	TPM	100%	100%	100%	100%
6	Trade waste discharge compliance with the <i>Trade Waste Bylaw 2012</i> based on the following minimum sampling: a) Quarterly sampling of all Tier 3 consents; and b) Annual sampling of 10% of Tier 2 consents.	TPM	90%	90%	90%	95%
7	% of customers called back who found service acceptable or impressed	TPM	70%	70%	70%	70%
8	Compliance with the Council's resource consents for discharge from the wastewater system, measured by the number of: a) abatement notices b) infringement notices c) enforcement orders d) convictions	MPM	0	0	0	0
9	The number of dry weather sewerage overflows from the territorial authority's sewerage system, expressed per 1000 sewerage connections to that sewerage system	MPM	≤1.35	≤1.35	≤1.35	≤1.35
10	Residents' satisfaction with sewerage reticulation, treatment and disposal services	LTP	70%	70%	70%	70%
11	The total number of complaints received by the territorial authority about any of the following: a) sewage odour; b) sewerage system faults; c) sewerage system blockages; and d) the territorial authority's response to issues with its sewerage system,  expressed per 1000 connections to the territorial authority's sewerage system.	MPM	<20	<20	<20	<20
12	Where the territorial authority attends to sewerage overflows resulting from a blockage or other fault in the territorial authority's sewerage system, the following median response times measured:					
	a) attendance time: from the time that the territorial authority receives notification to the time that service personnel reach the site; and	MPM	≤1 hr	≤1 hr	≤1 hr	≤1 hr

	b) resolution time: from the time that the territorial authority receives notification to the time that service personnel confirm resolution of the blockage or other fault.	MPM	≤7 hr	≤7 hr	≤7 hr	≤7 hr
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**Notes**

<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

<sup>b</sup> Critical assets are defined as the top 20% most critical assets, as assessed by the Waste & Drainage Department from time to time.

*Table C-2: Level of service statement: Council will provide well-maintained and accessible public toilets in high- use areas (strategic objectives: Clean, Healthy and Valued Environment; Vibrant Healthy Communities)*

Item	Performance measure	Type <sup>a</sup>	Targets			
			2018-19	2019-20	2020-21	2021-28
1	Residents' satisfaction with public toilets <sup>c</sup>	LTP	>75%	>75%	>75%	>75%

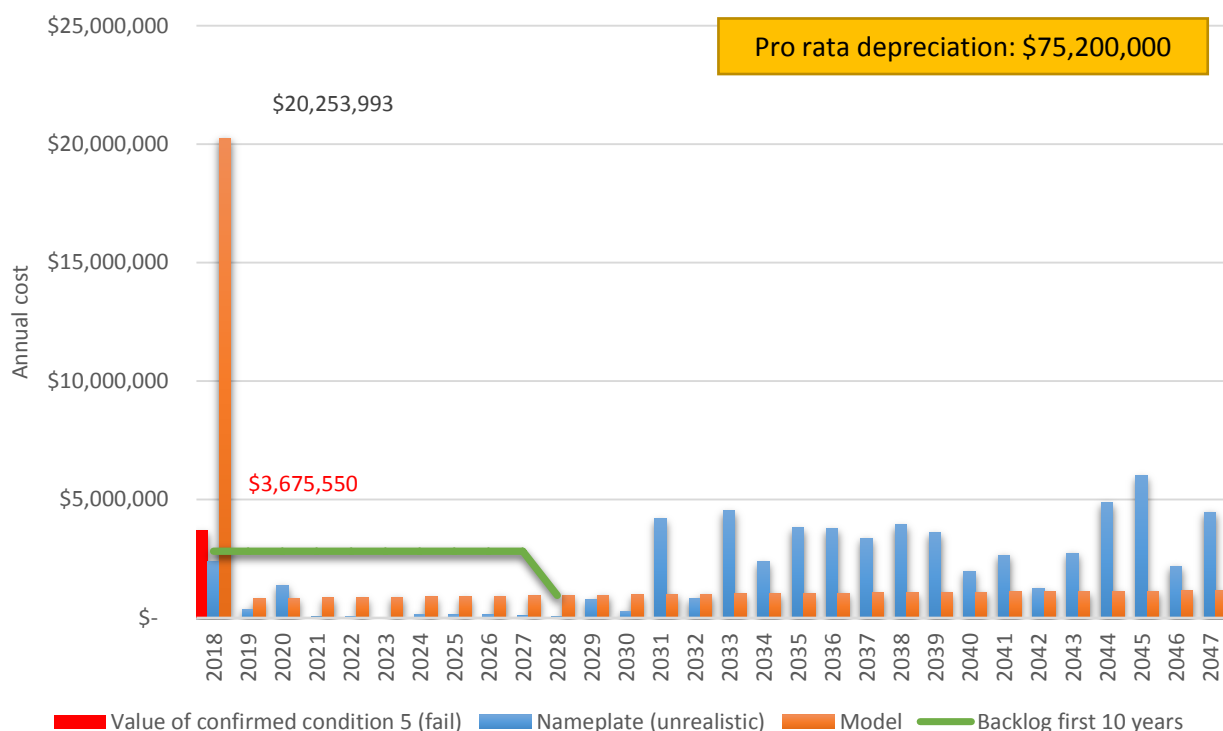
**Notes**

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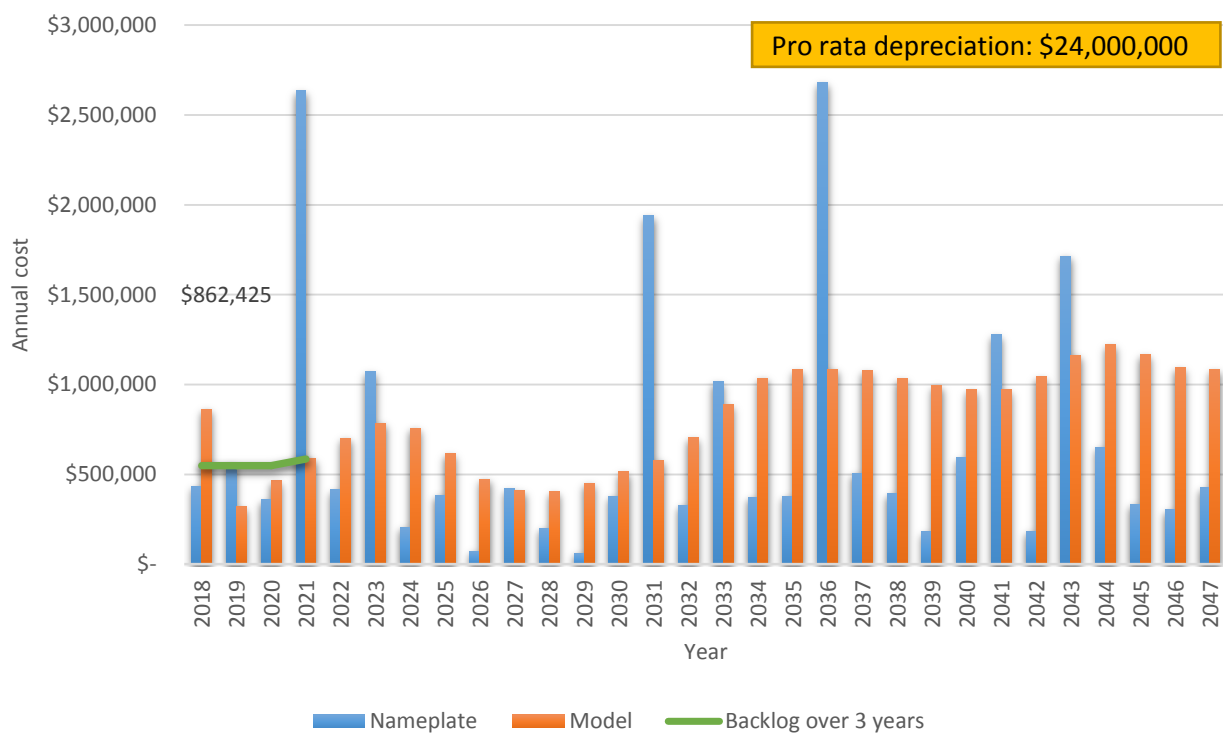
<sup>c</sup> It is acknowledged that this measure does not entirely adhere to SMART principles; there is however little organisational appetite for developing more robust measures.

## Appendix D      Renewal profiles

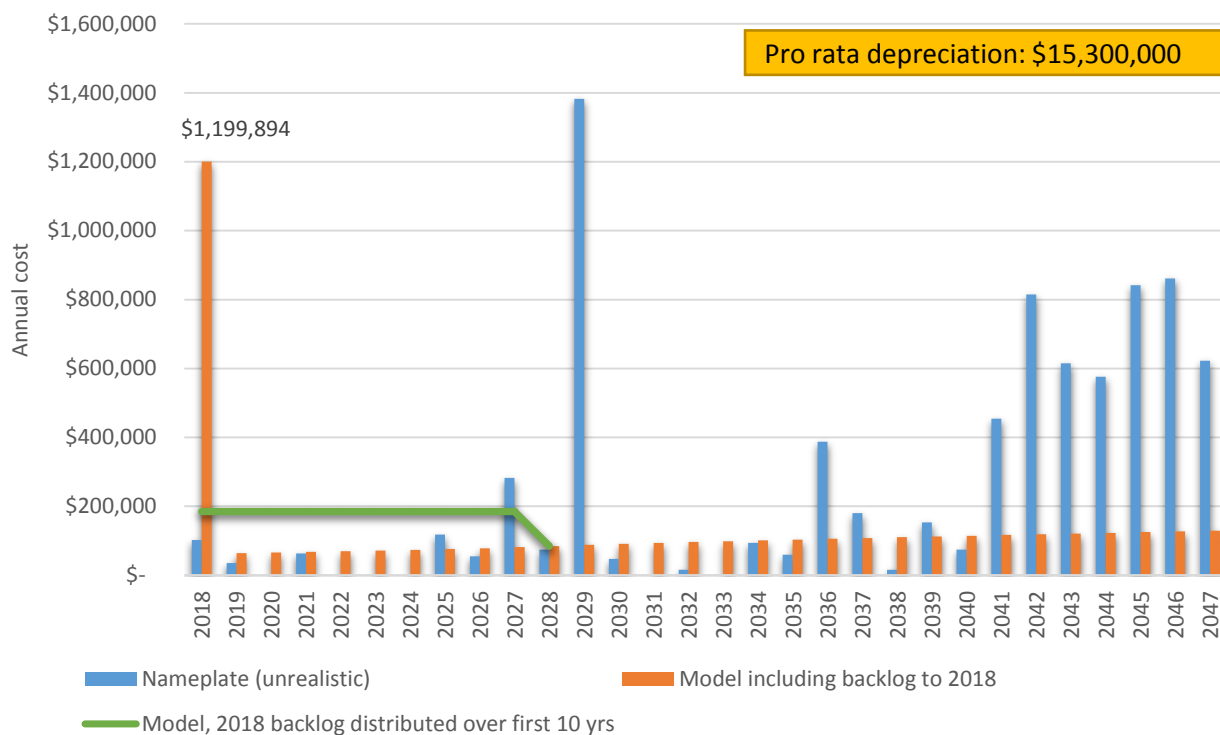
### Sewer renewals - all locations except Hikurangi



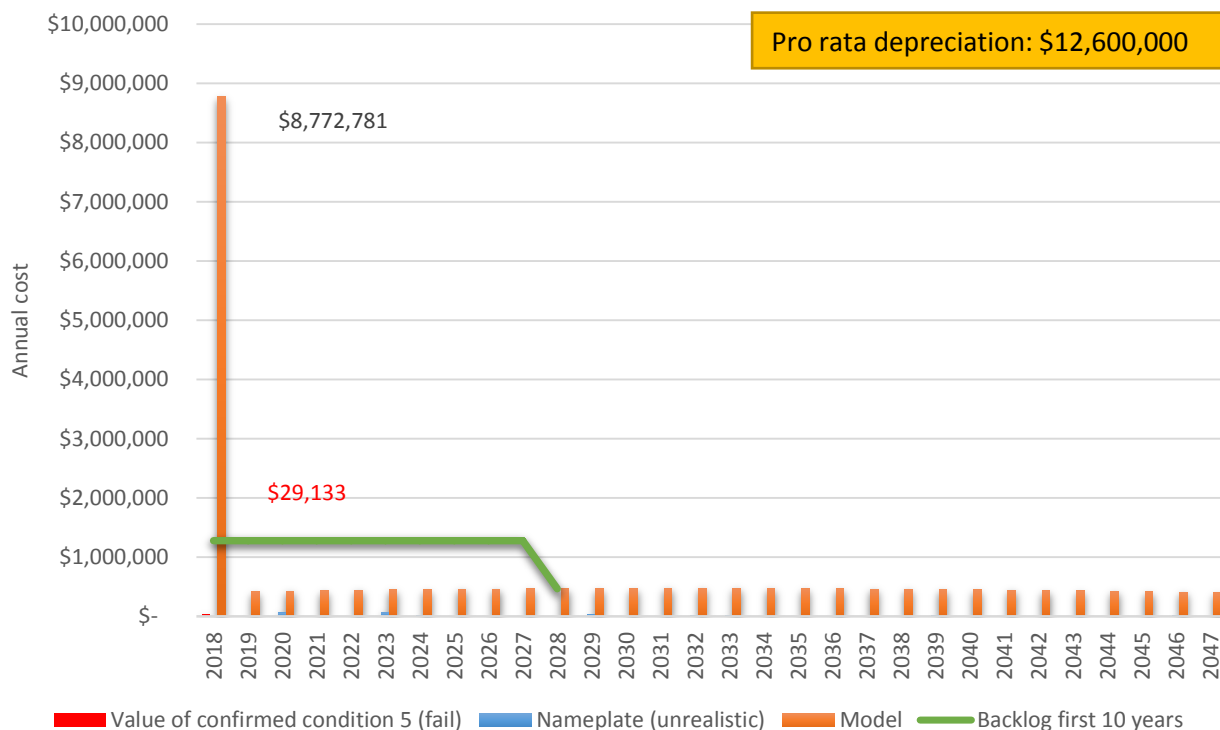
### WWTP Renewals



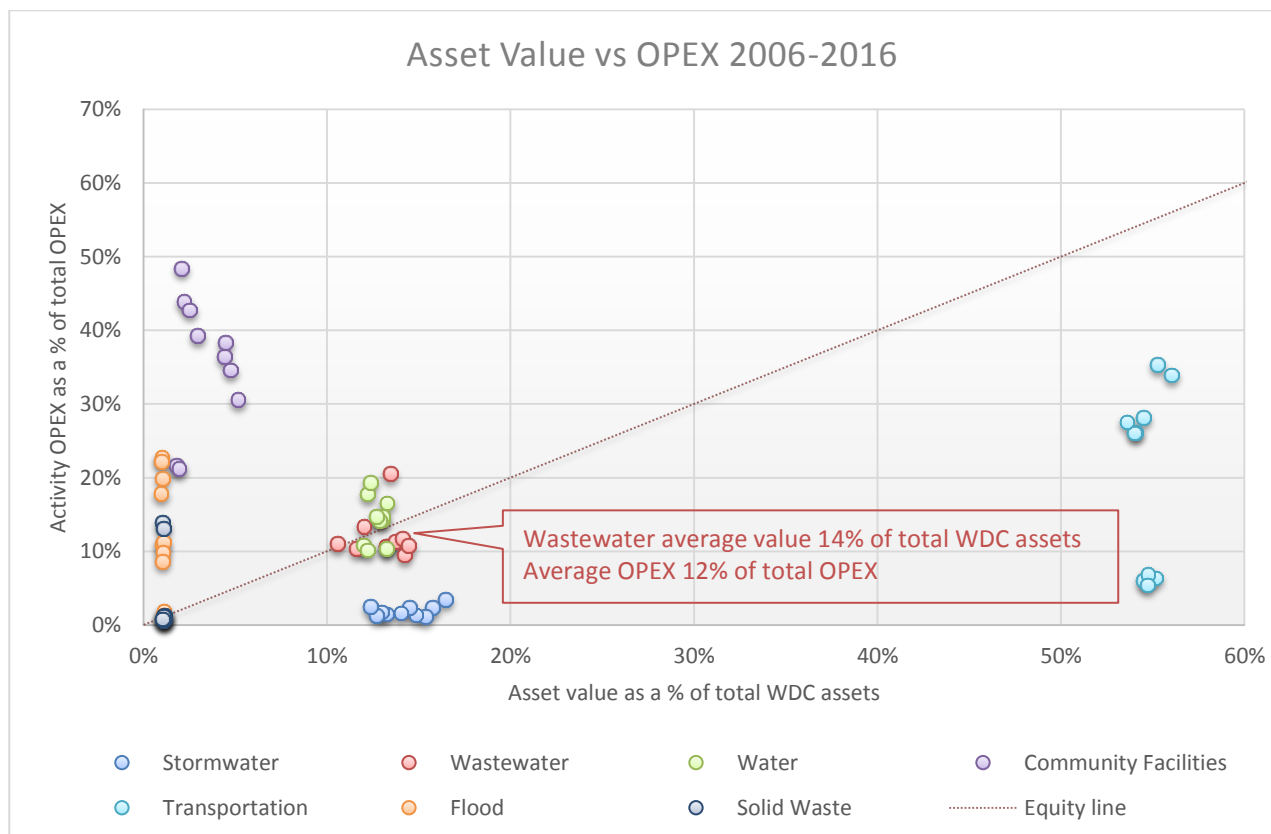
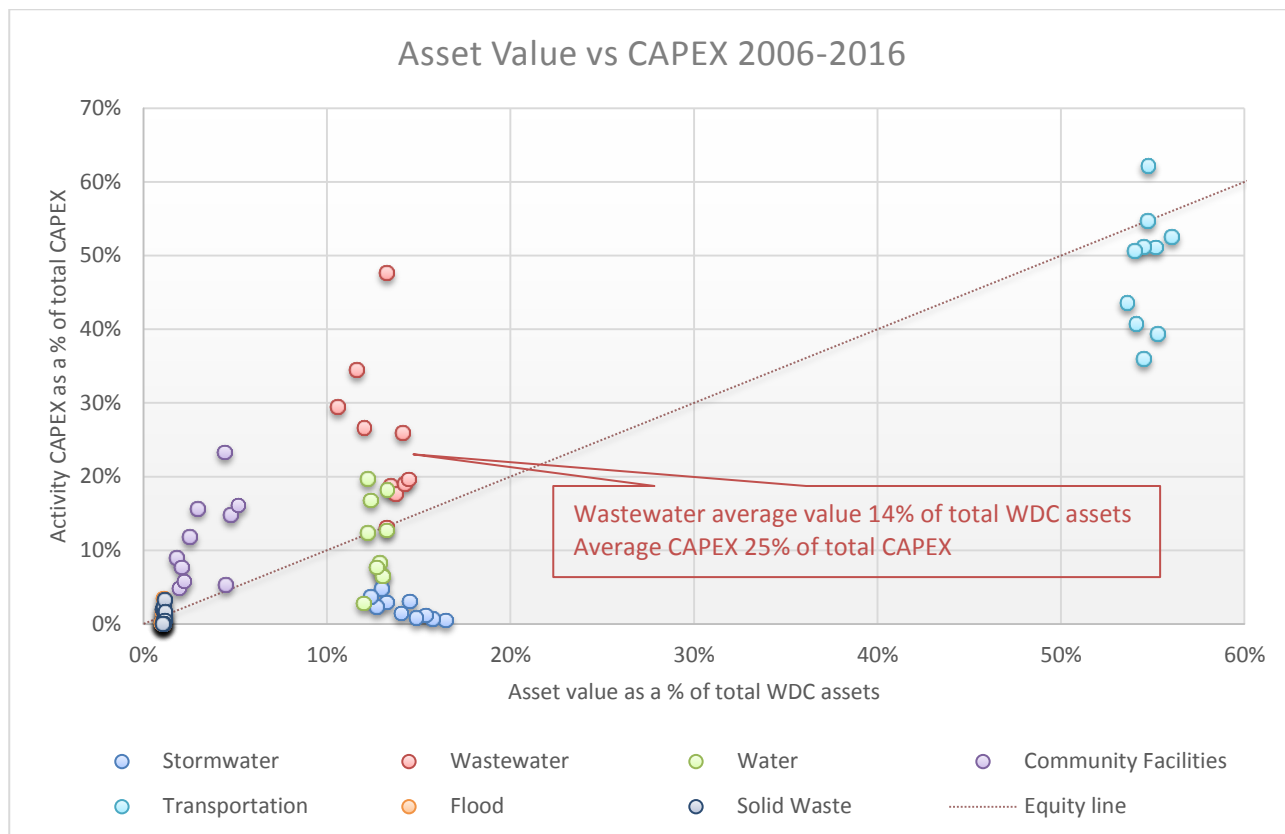
## Sewer manhole renewals



## Sewer service line renewals - all locations



## Appendix E Historical funding







## **LTP 2018-28 Stormwater Briefing Report**

**Meeting:** Council Briefing  
**Date of meeting:** 30 August 2017  
**Reporting officer:** Andrew Carvell (Manager Waste Water & Drainage)

### **1 Purpose**

To discuss the Stormwater Activity as part of 2018-28 Long Term Plan development.

### **2 Background**

All information is set out in the Stormwater Briefing report in attachment 1.

### **3 Attachments**

1. LTP 2018-28 Stormwater Briefing Report



# Report

## Activity Group Briefing

Stormwater

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# 1 Where we are now

## 1.1 Activity overview

Our stormwater network prevents flooding to properties and roads. With the right approach, it will contribute significantly to vibrant and healthy communities through initiatives such as WDC's *Blue / Green Network Strategy*.

Under the *Local Government Act 2002*, stormwater services are a "core service". Other significant legislative requirements are:

- A requirement to assess, from a public health perspective, the adequacy of stormwater services available to communities, including the actual or potential consequences of discharges (*LG Act 2002*, s125-126)
- The requirement to prepare Catchment Management Plans in accordance with the draft Regional Plan
- Adhering to the freshwater quality objectives of the draft Regional Plan

Stormwater services are provided to the locations shown in **Appendix A**. The stormwater activity's primary contribution to our community outcomes is summarised in **Table 1**.

*Table 1: Stormwater activity contribution to community outcomes*

Community Outcome	Activity Contribution	Commentary
Clean, healthy and valued environment	<b>HIGH</b>	Environmental impacts of stormwater runoff are managed through resource consents, and development impacts are mitigated
Vibrant and healthy communities	<b>HIGH</b>	Effective stormwater infrastructure reduces the risk of health issues arising from ponding water and flooding. As an integral part of the <i>Blue / Green Network Strategy</i> , stormwater activities will contribute strongly to this outcome.

Stormwater assets comprise over 30,000 items with an aggregate value of \$271M, representing 14% of WDC's asset base (**Table 2**).

*Table 2: Stormwater assets*

Category	Length (km)	Number	Replacement Cost (\$)
Main Lines	324	12593	\$213,000,000
Manholes		6360	\$24,000,000
Inlets		7203	\$11,300,000
Service Lines	42	2766	\$7,850,000
Channels	158	1664	\$5,550,000
Other		65	\$538,000
Miscellaneous		58	\$184,000
Nodes		3717	\$184,000
<b>TOTAL</b>		<b>34426</b>	<b>\$ 263,000,000</b>

## 1.2 Current Levels of Service, and performance measures

Our current Level of Service (LOS) statement is presented in Table 3. For 2018-28 we are proposing some adjustments to the current LOS statement in line with IIMM recommendations.<sup>1</sup>

Table 3: LOS statements

Current 2015-25	Proposed 2018-28
5.1 Council will provide a stormwater network that minimises flood risks and environmental impacts.	Council will manage the stormwater network to minimise flood risks within declared service areas
	Council will enhance and protect the stormwater receiving environment adjacent to declared service areas through sustainable management of the stormwater network

Our historical performance measures are presented in **Appendix B**. They show:

- declining satisfaction with stormwater services;
- deteriorating asset condition;
- complaints are low; and
- despite reduced overall satisfaction, customers are generally satisfied or even impressed with our response to stormwater complaints and requests, which indicates that our *reactive* maintenance (as opposed to *planned* maintenance) is working well.

We are proposing some changes to our current performance measures as follows:

- additional measures reflective of statutory obligations
- clarification of measures regarding flooding (see discussion below)
- additional measures specifying renewal targets for critical infrastructure

The proposed 2018-28 performance measures are presented in **Appendix C**.

A key point for elaboration is the definition of “flooding”. Our current target is zero flooding of habitable floors, which is “*neither practically or financially feasible*”.<sup>2</sup> Our proposed target is zero flooding for events up to the 1-in-50-year flood, if those dwellings have been constructed to the correct floor level. This is consistent with the District Plan.

The previous 2015-25 AM Plan specifically removed performance measures associated with the 1-in-5-year flood. That is, nuisance flooding of yards is not a level of service issue (see **Appendix D**). Unless a habitable building is flooded, or a public health issue is identified by an *LG Act* water services assessment, we will not consider any upgrades to the stormwater system.

## 1.3 Current state of assets / condition assessments / capacity

### Current state of assets

As we develop a better understanding of asset condition through recent CCTV inspections, it has become apparent that a proportion of our assets will not reach their “nameplate” life. Our assets are deteriorating faster than previously expected. So far, we’ve inspected 27 km of mains (8% of the total 324 km). Key findings are:

- we have physically identified **\$4.4M** worth of in-service stormwater mains currently in a failure condition requiring renewal
- modelling using this condition data predicts **\$37.6M** worth of in-service mains to be in a failure condition (19% of mains)
- pipes installed in the last 20 years have a higher failure rate than those from previous decades

<sup>1</sup> *International Infrastructure Management Manual 2015* (Institute of Public Works Engineering Australasia, 2015), recognised as best practice by WDC’s Asset Management Policy.

<sup>2</sup> *Northland River Management Policy* (Northland Regional Council, 2006)

It's unrealistic to expect this renewal backlog to be rectified immediately. If we spread the backlog over LTP years 1-10 we'll need **\$5.3M** per annum to renew storm mains (**Figure 1**), noting that Council is potentially exposed to flood claims and other costs during this time. Including other assets, we expect the overall renewal requirement to be in the order of **\$6M** per annum for LTP years 1-10 (**Table 4**).

Table 4: Stormwater asset values

Asset Group	Value	Pro-rata Depreciation	Annual Depreciation	Estimated renewals backlog	Average renewal LTP Years 1-10
Main	\$203,000,000	\$63,000,000	\$2,060,000	\$37,600,000	\$5,330,000
Manhole	\$26,600,000	\$9,920,000	\$329,000	\$4,750,000	\$677,000
Channel	\$14,800,000	\$2,890,000	\$184,000	\$0	\$0
Inlet	\$11,800,000	\$4,740,000	\$148,000	\$54,000	\$20,000
Service Line	\$12,700,000	\$3,070,000	\$135,000	\$305,000	\$53,000
Miscellaneous	\$1,740,000	\$224,000	\$34,000	\$0	\$2,000
<b>TOTALS</b>	<b>\$270,640,000</b>	<b>\$83,844,000</b>	<b>\$2,890,000<sup>3</sup></b>	<b>\$42,709,000</b>	<b>\$6,082,000</b>

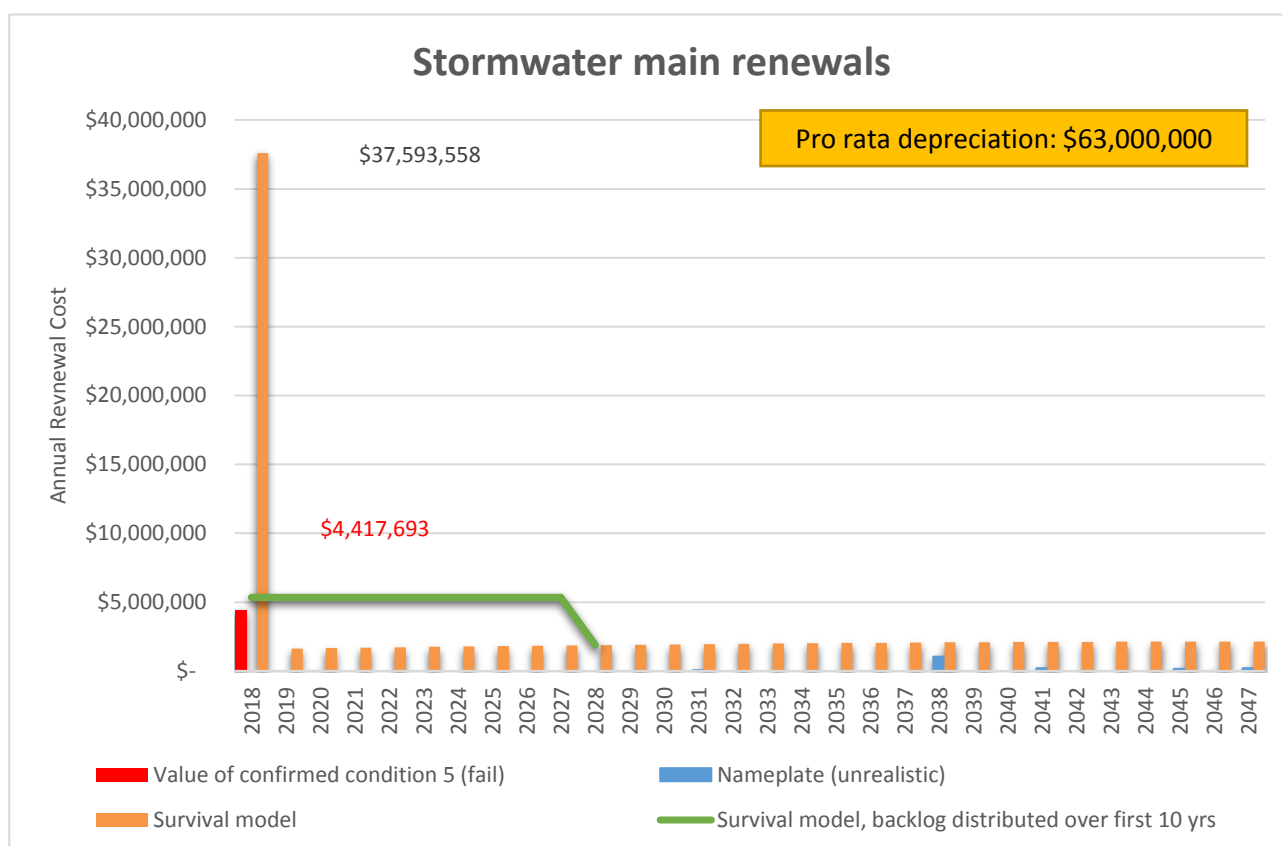


Figure 1: Stormwater Main Renewals 2018-2047

### Condition assessments

Specific funding for critical asset inspections was not provided in 2015-16, so the associated performance target was not achieved. Some condition assessments were undertaken in 2016/17. Funding for inspections

<sup>3</sup> Capital expenditure must match or exceed depreciation to meet our essential services benchmark (*Local Government Financial Reporting and Prudence Regulations 2014*)

is necessary to properly manage our assets; condition assessments will require an ongoing operating budget of \$110,000 per annum over LTP years 1-10.

### Capacity

The stormwater system has grown organically over the years. We don't have network models to assess system capacity – this shortcoming has been addressed in the proposed performance measures and will require matching funding.

## 1.4 Funding levels

While stormwater assets comprise 14% of all WDC assets, expenditure has typically been only 2% of WDC's annual CAPEX and OPEX spend (**Appendix E**). This underfunding is reflected in the declining condition of stormwater assets.

While there is provision within the District Plan for developer contribution charges, current Council policy is to not charge DCs on stormwater, instead requiring developers to provide infrastructure that is subsequently vested to Council. The stormwater activity is thus funded entirely from general rates.

Historical funding levels are summarised in **Table 5**.

*Table 5: Historical funding levels*

Year	OPEX		CAPEX		Reserves Contribution
	Income	Expenditure	Income	Expenditure	
2012-13	4,642	855	8	230	3,565
2013-14	2,803	1,015	0	1,788	0
2014-15	2,106	901	-648	557	0
2015-16	2,074	891	-412	772	0

## 1.5 Environmental Scan

### Growth

In theory, growth should have minimal impact as developers are required to attenuate discharges. In practice, the capacity of the existing network to receive additional flows is not being evaluated, irrespective of EES requirements.

The evaluation of growth impacts on system capacity will require catchment management plans to be updated, and network models to be developed.

### Climate change

Most (81%) of the network was not designed with an allowance for climate change. Even without growth, the network will over time experience increased flows from existing connections. This timeframe will generally coincide with renewals, so pipes will be upgraded when replaced.

Rising sea levels will reduce the effectiveness of stormwater outlets in tidal zones. Intense rainfall in combination with high tides may increase flooding extents. Rising sea levels also threaten low-lying and coastal communities with inundation. NRC has recently mapped coastal hazard zones and our seaside communities will be increasingly affected as sea levels continue to rise.

## 1.6 High level strategic direction

### National Policy

There is an increasing focus on water quality in streams and rivers, through the *National Policy Statement on Freshwater Quality* which is reflected in NRC's draft Regional Plan. The Whangarei stormwater system includes 360 outlets that discharge directly to water and another 1,400 outlets that discharge onto land that then discharge to water. Nearly all stormwater is currently discharged with little to no treatment.

### Partnerships



We have strategic partnerships with NRC (Whangarei Harbour Water Quality group), Mountains to Sea Conservation Trust (Waitaua Awa Project, Project Living Waters) and stakeholders in the Hikurangi Flood Scheme.

### Stormwater activity strategy

Addressing the challenges faced by the stormwater activity will require infrastructure upgrades, or a change to LOS, or a combination of both. As network models and up-to-date catchment management plans do not currently exist, it is not possible to accurately estimate the nature or cost of any such upgrades. Our proposed strategy is:

1. Address the known issues – renewals and the LOS projects listed in the Stormwater Projects Database (years 1-10).
2. Define the unknown issues – update our CMPs and prepare network models to evaluate how well our system is performing (years 1-2).<sup>4</sup>
3. Budget for undefined system improvement projects based on historical expenditure (years 1-10).
4. Refine improvement budgets based on CMPs (year 3).
5. Execute system improvement projects in 2021-2031 AM Plan (years 4-10 of this plan).

This is shown diagrammatically in **Figure 2**.

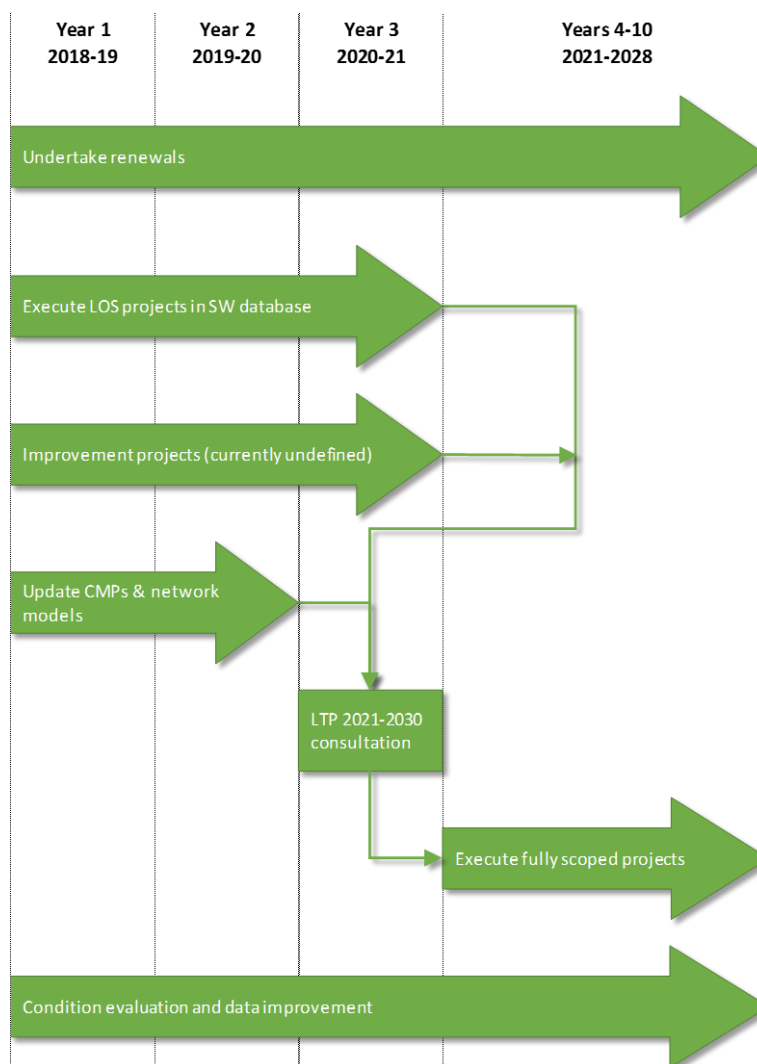


Figure 2: Stormwater schedule

<sup>4</sup> Update of CMPs is also a requirement of the Draft Regional Plan.

## 1.7 Progress and changes from the last LTP (15-25)

Asset Management Policy and Strategy documents have been developed based on IIMM. These are being used in the development of the 2018 Stormwater AMP.

From condition data, we have developed a survival model, which estimates the proportion of pipes surviving to a given age.

## 2 The next 10-30 years

### 2.1 Issues

Keys issues are, in order of priority:

1. Securing adequate funding.
2. Addressing the renewals backlog.
3. Undertaking water services assessments and preparing Catchment Management Plans as per statutory requirements.
4. Developing network models to evaluate system performance.
5. Gathering adequate asset data to support model development.

### 2.2 Risks

#### Flooding

Flooding is the single largest risk associated with the stormwater activity. The *Whangarei CBD Flood Management Study - Flood Damage Assessment* (URS, 2006) calculated the average annual damage cost at **\$5.6M**, and **\$20M-\$40M** if “adverse climate change occurs that affects free runoff from the CBD area”. Kotuku Dam mitigates but does not eliminate this risk. Further, the Priority Rivers Project (Northland Regional Council) has mapped 1-in-10-year and 1-in-100-year flooding extents. Assessing property improvements (i.e. the difference between CV and LV) shows that, over the 30-year LTP timeframe, there is:

- a 96% chance of at least one flood that exposes \$306M worth of property improvements to damage, and
- a 26% chance of at least one flood that exposes \$603M worth of property improvements to damage.

#### Deferral of renewals

We have a very large renewal backlog. Deferring renewals will reduce levels of service, increase maintenance costs, potentially expose Council to flood damage claims, and incur additional costs if renewals must be conducted under emergency conditions.<sup>5</sup>

#### Vested assets

Historical condition monitoring has identified that pipes installed in the last 20 years have a higher failure rate than those from previous decades. This is coincident with a decline in public construction and an increase in vested assets. Investment in construction supervision is recommended to reduce the risk of inheriting assets that become a burden to ratepayers.

#### NRC definition of flooding in draft Regional Plan

NRC’s definition of flooding refers to cadastral property boundaries rather than habitable floors, and raises the immunity requirement to the 1-in-10-year flood.<sup>6</sup> We have provided comment on this item to NRC. If left unchanged in the Regional Plan, WDC will be obliged to upgrade the entire stormwater system, which has historically been designed for the 1-in-5-year flood.

#### Coastal inundation

Sea level rise will eventually render service provision to some communities unsustainable (Society of Local Government Managers, 2015). A considered response, incorporating all Council service areas, should be addressed by the 30 year Infrastructure Strategy.

<sup>5</sup> Research shows that optimisation analysis can result in between 15% and 25% long-term cost savings compared to reactive maintenance planning (Office of the Auditor-General, 2014)

<sup>6</sup> (Northland Regional Council, August 2016) p13, sC.4.4

### Asset data

Our asset data may be suitable for financial purposes, but for asset management it is inadequate. For example, recent Morningside CCTV identifies that 40% of the network in this area is in a different location to that shown on Council's GIS.

A "spider plot" showing data completeness is depicted in **Figure 3**. Additional resources will be required to collect missing data and to validate existing information.

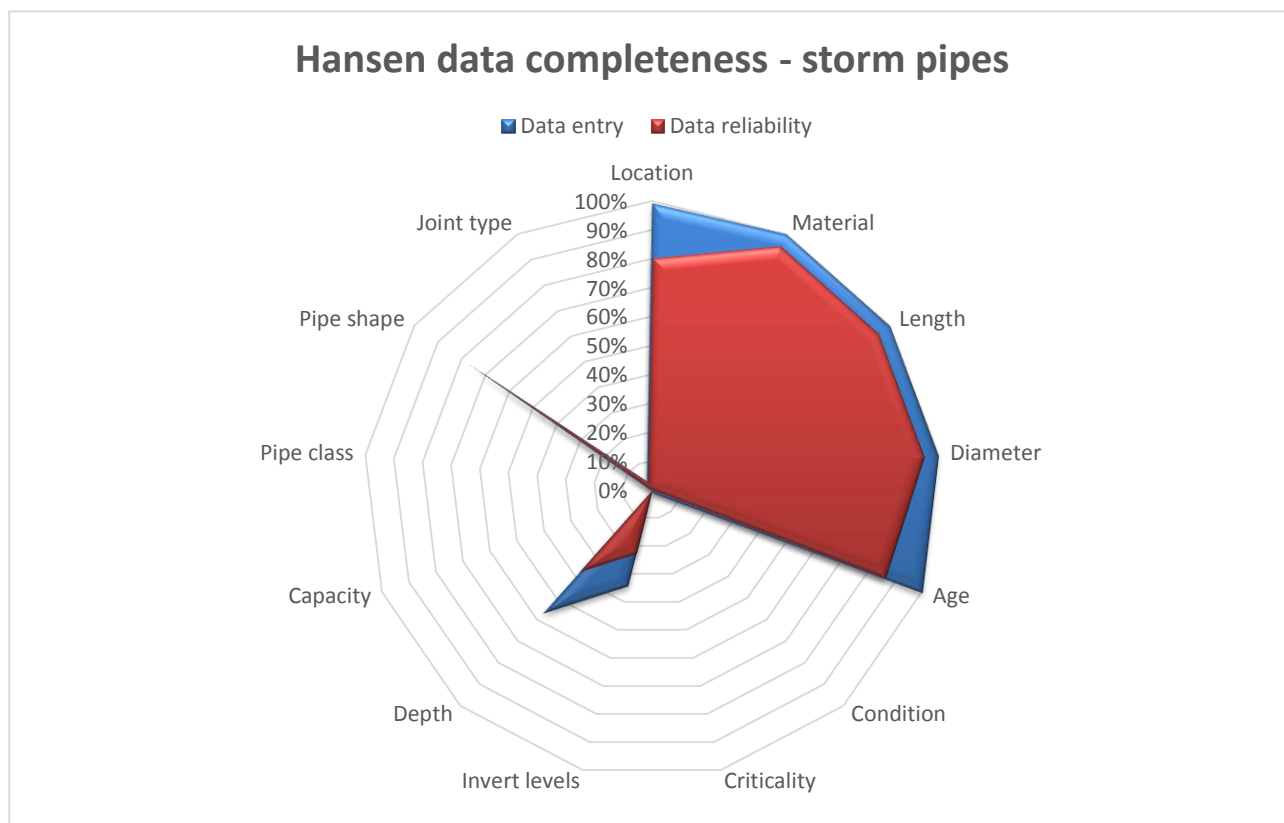


Figure 3: Stormwater data assessment

### Water quality

Community expectations and / or increased regulation may require additional stormwater treatment. We have over 300 stormwater outlets in Whangarei alone.

### Overland flow paths

Overland flow paths have not been mapped in our GIS. Ensuring they are operational and clear of obstructions is essential for flood prevention.

## 2.3 Key upcoming/proposed projects

The identification and scoping of LTP projects is a work in progress and is not complete at this stage.

Project title	Description	Business need (issue/opportunity)	Area/Ward	Year(s)	Total cost (\$000)	LoS
Stormwater mains renewals	Stormwater mains renewals	Provision of LOS, avoid flood damage, avoid consequential damage costs	Urban areas	1-10	53,300	Table C-1 PM4,5
Stormwater quality treatment	Retrofit of stormwater quality devices on outlets to streams and rivers	Regional Plan, Draft Whangarei Harbour Catchment Plan	Urban areas	1-10	9,720	Table C-2 PM4
Stormwater manhole renewals	Stormwater manhole renewals	Provision of LOS, avoid flood damage, avoid consequential damage costs	Urban areas	1-10	6,770	Table C-1 PM4,5
Stream improvements	Physical improvement of open channels and streams	Aligns with Blue / Green Network Strategy	Various	1-10	4,200	Table C-2 PM1
Stormwater inlet renewals	Stormwater inlet renewals	Provision of LOS, avoid flood damage, avoid consequential damage costs	Urban areas	1-10	3,240	Table C-1 PM4,5
CMPs	Catchment Management Plans	Statutory requirement (Regional Plan)	Various	1-10	1,500	Table C-1 PM2
Condition assessments	CCTV inspections of stormwater mains and physical inspections of other assets to assess condition	Renewals	Urban areas	1-10	1,100	Table C-1 PM4,5
Asset data improvement	Collection and verification of missing asset data	Information required to support water service assessments and CMPs	Various	1-10	1,000	Table C-1 PM4,5
Stormwater service line renewals	Service line renewals (from property boundary to main)	Provision of LOS, avoid flood damage, avoid consequential damage costs	Urban areas	1-10	530	Table C-1 PM4,5
Water service assessments	Water service assessments	Statutory requirement (LG Act)	Various	1-10	TBA	Table C-1 PM1

## 2.4 Funding policies

As per the Asset Management Policy, funding should focus on renewals/repairs before new projects / balanced budget. Funding should otherwise align with the issues identified in section 2.1.

## 3 Council direction needed:

### 3.1 High-level strategy for this LTP (18-28)

Our proposed strategy is outlined in section 1.6. It aligns with the Asset Management Policy and is based on asset needs. The key direction required is whether enhanced funding will be provided for the identified renewals and other requirements.

### 3.2 Specific points requiring council direction

Endorsement of proposed LOS statement

Endorsement of proposed performance measures

In-principle funding for the above (subject to budget envelopes)

Investment in flood studies

Community consultation to determine appetite for retrofit of stormwater quality devices

## 4 References

**Department of Internal Affairs. 2014.** *Non-Financial Performance Measures Rules 2013 - Supporting guidance for stormwater*. 2014. DMS Library: LGS 3600-11 Document ID: 3905569DA.

**Institute of Public Works Engineering Australasia. 2015.** *International Infrastructure Management Manual*. 2015. ISBN No: 0-473-10685-X.

**Northland Regional Council. August 2016.** *Draft Regional Plan for Northland*. August 2016.

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**Office of the Auditor-General. 2014.** *Water and roads: Funding and management challenges*. 2014. ISBN 978-0-478-44201-4.

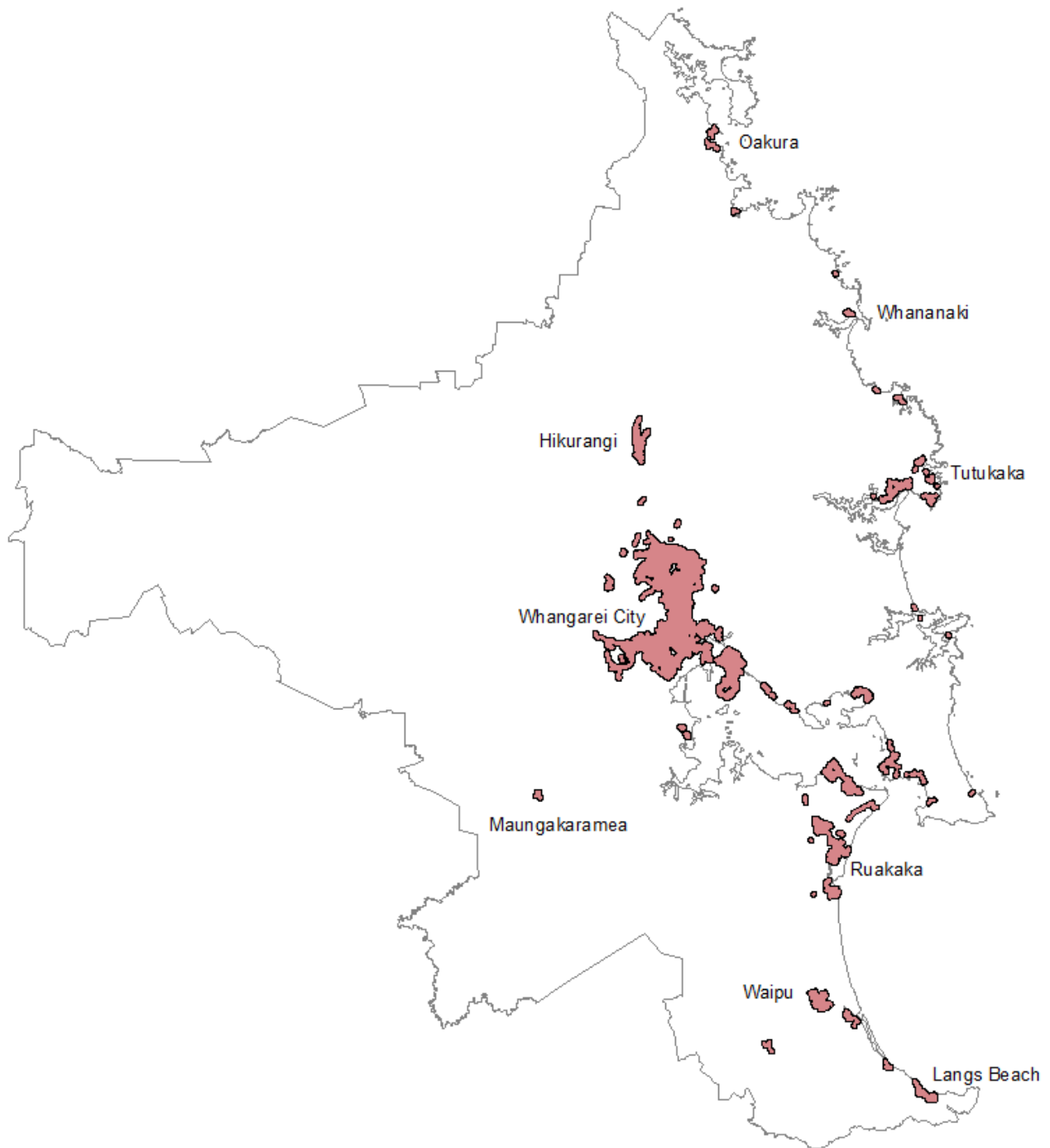
**Society of Local Government Managers. 2015.** *Climate change - local government can make a difference*. 2015.

**URS. 2006.** *Whangarei CBD Flood Management Study - Flood Damage Assessment*. 2006.

**Versus Research. 2016.** *Whangarei District Council: Resident Satisfaction Survey*. 2016. TRIM 16/57762 .

**Whangarei District Council. 2016.** *Blue/Green Network Strategy for Whangarei City*. 2016. STRATEGY7.

## Appendix A      Stormwater Service Areas



## Appendix B Historical Performance Measures

Item	Performance Measure	Type <sup>a</sup>	2012-13 (Target) Result	2013-14 (Target) Result	2014-15 (Target) Result	2015-16 (Target) Result
1	Compliance with the Council's resource consents for discharge from the stormwater system, measured by the number of: a) abatement notices b) infringement notices c) enforcement orders d) convictions	MPM	New MPM			(0) 0
2	Residents' satisfaction with stormwater drainage service.	LTP	(70%) 60%	(70%) 65%	(70%) 76%	(70%) 68% <sup>b</sup>
3	The number of complaints received by Council about the performance of its stormwater system, expressed per 1000 properties connected to Council's stormwater system.	MPM	New MPM			(≤400) <sup>c</sup> 1.9
4	a) The number of flooding events that occur in the Whangarei District; and b) For each flooding event the number of habitable floors affected. Expressed per 1000 properties connected to the Council's stormwater system.	MPM	New MPM			(0) 0
5	The median response time to attend a flooding event, measured from the time that the Council receives notification to the time that service personnel reach the site.	MPM	New MPM			(≤1 hr) 36 mins
6	Blockages/breaks per 100 km of drainage system per month as defined from contract maintenance records from Hansen Database.	TPM	(≤ 2) 1.72 <sup>d</sup>	(≤ 2) 2.15 <sup>d</sup>	(≤ 2) 4.18 <sup>d</sup>	(≤ 2) 2.74
7	% of critical asset base inspected per year for condition assessment.	TPM	(15%) 17%	(15%) 15%	(15%) 0%	(15%) TBA
8	Average condition of rated asset stock.	TPM	(≤ 3) 2.9 <sup>e</sup>	(≤ 3) 2.9 <sup>e</sup>	(≤ 3) 3.0 <sup>e</sup>	(< 3) 3.1
9	% of customers called back who found service acceptable or impressed.	TPM	(≥ 90%) 86%	(≥ 90%) 95%	(≥ 90%) 96% <sup>f</sup>	(> 90%) 92%
10	Continuing ISO accreditation for "Collection, conveyance and treatment of wastewater and stormwater to comply with resource consent conditions".	TPM	New TPM			(Yes) Yes

### Notes

<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

<sup>b</sup> The 2015-16 year was wetter than average, however there were no significant rain events. Whilst this meant no major flooding events, it resulted in excellent growing conditions in the drains with most complaints associated with appearance and vegetation blockages.

<sup>c</sup> This target should have been expressed per 1000 property connections rather than a total, which would have resulted in a target per 1000 property connections of 15.7. The 2015-16 year had very few heavy rain events compared to previous years, particularly 2014-15. Consequently, there were only 48 complaints in total regarding stormwater.

<sup>d</sup> Previously reported as FY2012-13: 0.64; FY2013-14: 0.75; FY2014-15: 0.73, corrected in this document.

<sup>e</sup> Previously reported as FY2012-13: 3.10; FY2013-14: 3.13; FY2014-15: 2.80, corrected in this document (we have been post-processing historical condition assessments).

<sup>f</sup> Previously reported as 100%, corrected on review.

## Appendix C Proposed 2018-28 Performance Measures

*Table C-1: Level of service statement: Council will manage the stormwater network to minimise flood risks within declared service areas (strategic objectives: Growing, Resilient Economy; Vibrant Healthy Communities)*

Item	Performance measure	Type <sup>a</sup>	Targets			
			2018-19	2019-20	2020-21	2021-28
1	A stormwater services assessment is undertaken every 6 years (expressed as a proportion of the district's population covered by the assessment)	TPM	20%	40%	60%	100%
2	Catchment Management Plans are revised every 6 years (expressed as a proportion of the district's population within declared service areas).	TPM	20%	40%	60%	100%
3	Essential services benchmark (capital expenditure ÷ depreciation) is achieved.	TPM	≥ 1.0	≥ 1.0	≥ 1.0	≥ 1.0
4	% of critical asset base inspected per year for condition assessment.	TPM	15%	15%	15%	15%
5	Critical assets with identified structural condition grade 5 (fail) are renewed or repaired within 24 months of identification.	TPM	100%	100%	100%	100%
6	Blockages and breaks per 100 km of primary drainage system (per year).	TPM	≤ 2	≤ 2	≤ 2	≤ 2
7	% of customers called back who found service acceptable or impressed.	TPM	≥ 90%	≥ 90%	≥ 90%	≥ 90%
8	Residents' satisfaction with stormwater drainage service.	LTP	70%	70%	70%	70%
9	The number of complaints received by Council about the performance of its stormwater system, expressed per 1000 properties connected to Council's stormwater system.	MPM	16	16	16	16
10	a) The number of flooding events that occur in the Whangarei District; and b) For each flooding event the number of habitable floors affected.  Expressed per 1000 properties connected to the Council's stormwater system.	MPM <sup>b</sup>	0 <sup>cb</sup>	0 <sup>c</sup>	0 <sup>c</sup>	0 <sup>c</sup>
11	The median response time to attend a flooding event, measured from the time that the Council receives notification to the time that service personnel reach the site.	MPM <sup>b</sup>	≤1 hr	≤1 hr	≤1 hr	≤1 hr

### Notes

<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

<sup>b</sup> A flooding event means an overflow of stormwater from a territorial authority's stormwater system that enters a habitable floor (Department of Internal Affairs, 2014). It does not therefore apply outside declared stormwater service areas, non-habitable structures such as garages and sheds, or to flooding of yards. See **Appendix D** for a pictorial representation of flooding events.

<sup>c</sup> While all flooding events will be recorded as per DIA requirements, the target is immunity from storm events with an annual exceedance probability (AEP) of more than 2% (1 in 50 year ARI). This is consistent with District Plan rules for minimum floor level.



*Table C-2: Level of service statement: Council will enhance and protect the stormwater receiving environment adjacent to declared service areas through sustainable management of the stormwater network (strategic objectives: Clean, Healthy and Valued Environment; Vibrant Healthy Communities)*

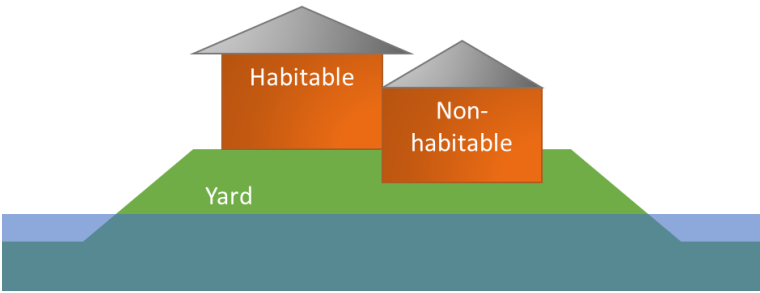

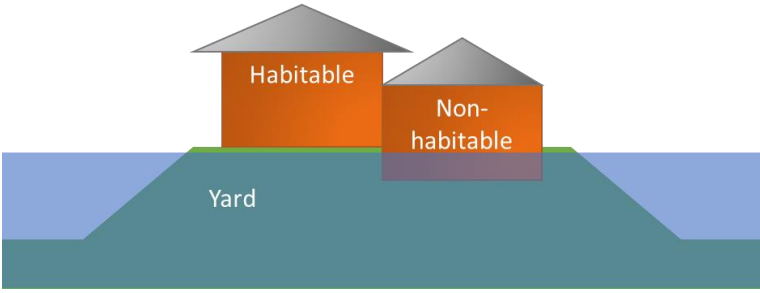

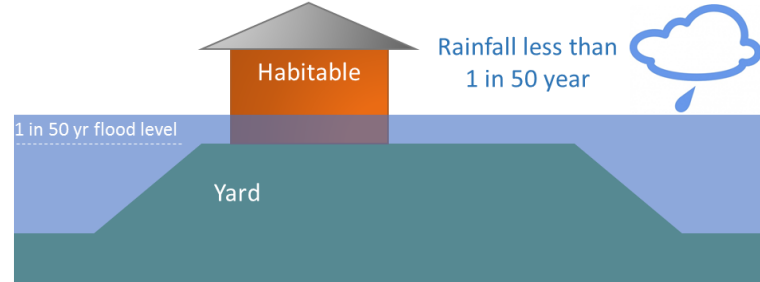

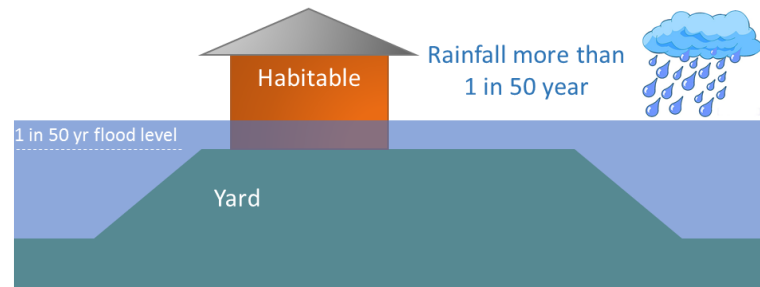

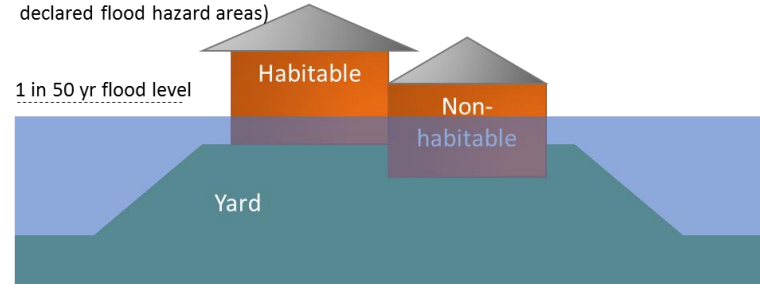

Item	Performance measure	Type <sup>a</sup>	Targets			
			2018-19	2019-20	2020-21	2021-28
1	Physical improvement of open channels and streams in accordance with Blue / Green Network Strategy (expressed as a cumulative total length) <sup>b</sup>	TPM	1 km	2 km	3 km	10 km
2	Contaminants removed from ponds (expressed as % of ponds cleaned per year)	TPM	20%	20%	20%	20%
3	Contaminants removed from cesspits (expressed as % of cesspits cleaned per year)	TPM	20%	20%	20%	20%
4	Contaminants removed from treatment devices (expressed as % of devices cleaned per year)	TPM	20%	20%	20%	20%
5	Removal of fish passage barriers (expressed as % identified in first year of LTP)	TPM	20%	40%	60%	100%
6	Compliance with the Council's resource consents for discharge from the stormwater system, measured by the number of: a) abatement notices b) infringement notices c) enforcement orders d) convictions	MPM	0	0	0	0

Notes

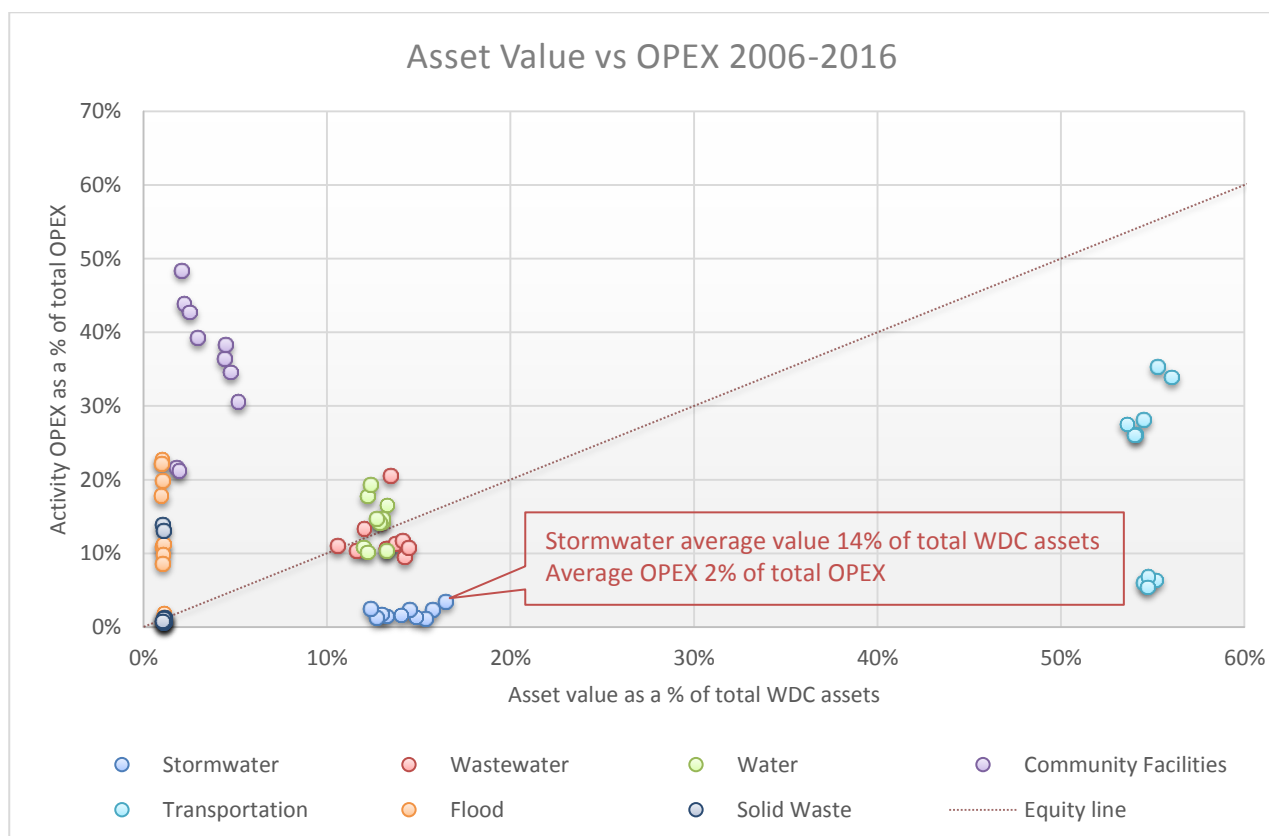
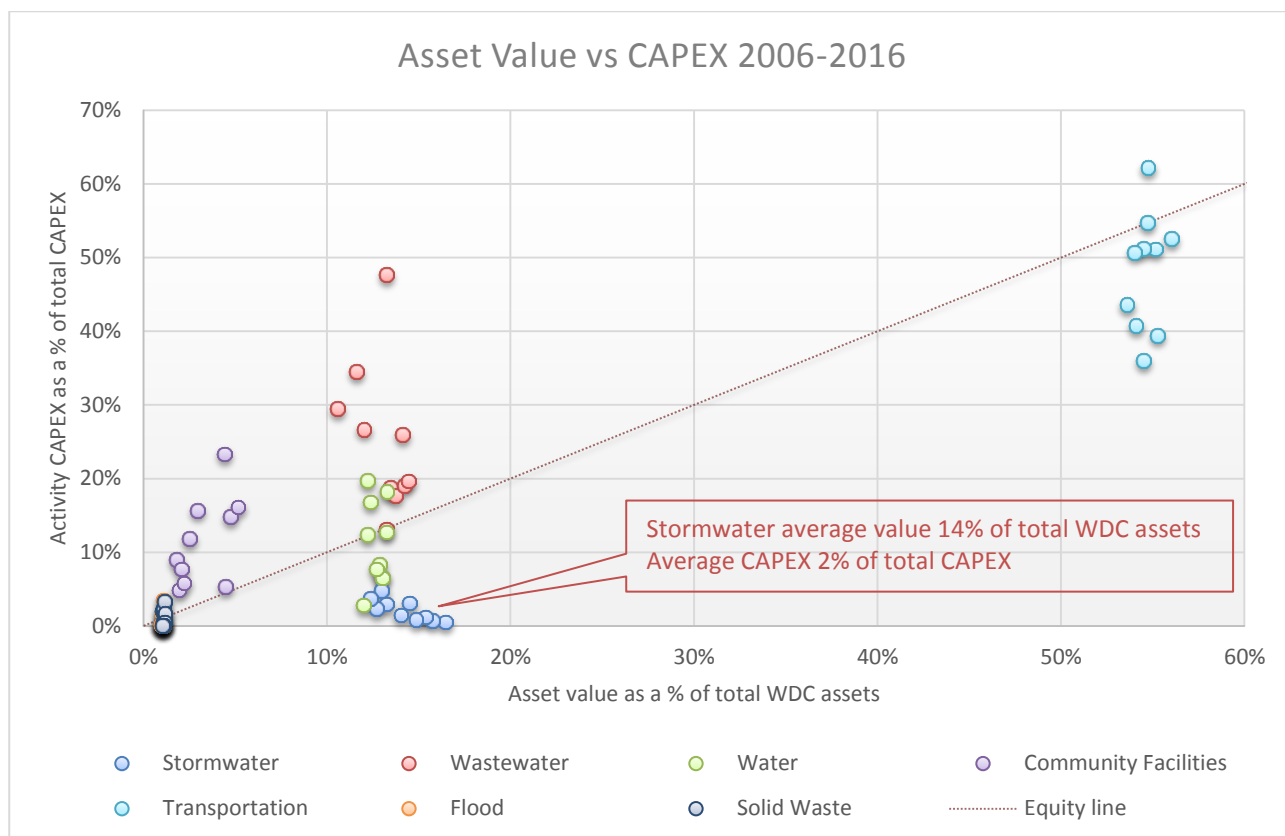
<sup>a</sup> MPM = DIA Mandatory Performance Measure (customer performance measure to be reported in LTP); LTP = elective (customer) performance measure to be reported in LTP; TPM = Technical Performance Measure (internal measure). Note: DIA sets performance measures but does not set targets – these are nominated by individual territorial authorities.

<sup>b</sup> 40 km of stream improvements over 50 years

## Appendix D LOS Flooding Events

	<p>Yard flooding – not a LOS flooding event. Check and clear any drain blockages.</p>	
	<p>Inundation of non-habitable building – not a LOS flooding event. Check and clear any drain blockages.</p>	
	<p>Inundation of habitable building following rainfall less than 1 in 50 – LOS flooding event. Check and clear any drain blockages, investigate system improvements.</p>	
	<p>Inundation of habitable building following rainfall greater than 1 in 50 – beyond system capacity, not a LOS flooding event. Emergency response.</p>	
<p>Properties with floor level below 1 in 50 yr flood level (typically older buildings in declared flood hazard areas)</p> 	<p>Inundation of habitable dwelling with floor below flood level – not a LOS flooding event. Check and clear any drain blockages.</p>	

## Appendix E Historical funding





## Parks and Recreation LTP Briefing

**Meeting:** Council Briefing  
**Date of meeting:** 30 August 2017  
**Reporting officer:** Aubrey Gifford (Acting Manager Parks and Recreation)

### 1 Purpose

To update Council on the Level of Service and GAP analysis for the Parks & Recreation department as part of the development of the 2018-28 Long Term Plan.

### 2 Background

Since the previous Long Term Plan (LTP), Parks and Recreation has carried out an intensive in-house review of its assets for management and valuation purposes. Improvement strategies were identified as part of this process.

Analysis of past and present Asset Management Plan has identified GAP changes for which Renewals is a focus of this briefing.

All information is set out in the Activity Group Briefing report located in attachment 1.

### 3 Attachments

1. LTP 2018-28 Activity Group Briefing Report
2. Parks & Recreation LTP 18-28 Presentation



# Report

## Activity Group Briefing

Parks and Recreation

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# 1 Strategic Overview

## 1.1 Activity overview

Council provides parks and facilities in parks which support the health and wellbeing of the community - providing areas for sport and recreation, protecting ecosystems, biodiversity and landscapes, and providing spaces that are restful and enhance visual and community amenity.

Parks and Recreation actively manages 516 hectares and has approx. 1,789 hectares of natural parkland.

Council provides public amenities to support the health and wellbeing of the community by providing areas for burial, and for the comfort and convenience of visitors and residents. Facilities are provided for sport and recreation and civic space and key historic and cultural features are protected and enhanced. The provision and maintenance of Coastal structures and Seawalls falls under the Parks and Recreation umbrella.

Our ability to manage Renewals expenditure is generally best met by incremental increases during the early years of the LTP.

Land is excluded as its value sits in the Tech 1 module. Trees are not valued therefore excluded. Council manages and maintains approximately 17,000 street trees and specimen park trees.

Table 1 gives a high level over view of Parks assets.

Parks Group Assets	# of Assets	Replacement Value (000)	Sum of WDV Period End	Sum of NEW Depreciation Current Period	Average Remaining Life
Bins	35	\$36,000	13,694	3,531	5
Fleet Equipment	5	\$88,000	48,691	37,336	5
Street Sign	730	\$1,156,304	406,524	59,084	6
Fence	986	\$2,684,000	1,026,792	150,624	7
Play Equipment	84	\$1,178,464	601,618	79,165	7
Park Furniture	779	\$2,638,070	801,557	54,154	8
Sports Equipment	43	\$240,343	97,020	9,155	8
Storm Miscellaneous	5	\$210,122	168,026	20,278	8
Usage Area	375	\$10,059,421	4,755,728	539,885	9
Water Node	96	\$32,610	4,684	514	9
Water Pump	1	\$328	142	15	9
Water Meter	5	\$4,894	15,977	806	13
Sidewalk	343	\$3,312,335	2,394,707	109,366	16
Street Light	523	\$3,227,026	1,671,091	66,468	18
Street Segment	1	\$259,321	245,801	554	19
Landscape	13	\$2,500,000	2,589,171	52,327	23
Bridge	62	\$3,862,000	1,829,997	47,758	28
Building	126	\$13,720,000	8,179,419	202,679	30
Plant Equipment	72	\$837,566	780,514	33,738	30
Water Hydrant	5	\$8,492	4,819	84	38
Storm Service Line	19	\$2,685,719	912,261	23,264	42
Water Miscellaneous	29	\$4,925	3,936	95	42
Water Valve	138	\$57,787	97,611	3,453	45
Chamber	1	\$7,500	6,610	144	48
Appurtenance	157	\$2,183,000	1,440,399	60,525	54
Water Backflow	4	\$4,236	2,146	54	59
Storm Manhole	22	\$85,061	66,585	1,001	66
Wall	115	\$6,120,204	5,285,514	72,522	69
Storm Inlet	34	\$49,777	39,405	540	70
Storm Channel	25	\$94,516	69,145	942	72
Storm Node	9	\$5,350	3,923	60	73
Water Main	66	\$746,118	482,464	6,171	79
Storm Main	66	\$875,643	583,448	10,763	82
Water Service Line	93	\$1,147,284	322,596	5,380	94
Sewer Main	1	\$13,826	10,186	106	96
Complex	-	-	-	-	-
Park	2,305Ha	-	-	-	-
Trees	17,100	-	-	-	-
		\$60,136,242	\$34,962,198	\$1,652,541	

**Table 1****1.2 Current Levels of Service, and Performance Measures**

A key objective is to match the level of service provided by parks assets with the expectations of customers. This requires a clear understanding of customer needs and preferences. The levels of service can then be used to:

- Inform customers of the proposed type and level of service to be offered.
- Develop asset management strategies to deliver the required levels of service.
- Measure performance against these defined levels of service.
- Identify the costs and benefits of the services offered.
- Enable customers to assess the suitability, affordability and equity of the services offered and contribute to the type and level of service (LOS).

LOS is a capacity standard usually measured against population, therefore population Growth reflects a change in capacity to maintain the LOS.

Under capacity represents a backlog, LOS projects are backlog projects to reach the desired LOS capacity (target). Essentially if LOS projects aren't funded there is a conscious decision to reduce the LOS, even if only in the short term.

**Current levels of service statements and Performance Measures:**

<b>LOS1</b>									
Council will provide and maintain outdoor sporting facilities to support and promote active recreation of the community through participation in both organised and informal sporting activities.									
<b>Performance Measure</b>	2013-2014 Target	2013-2014 Result	2014-2015 Target	2014-2015 Result	2015-2016 Target	2015-2016 Result	2016-2017 Target	2016-2017 Result	2018-28 Target
Sports parks will be provided to meet the community's needs.	166	194.5	166	184	177	188	175	177	201
<b>LOS2</b>									
Council will provide and maintain a range of reserves, including built facilities to meet the recreational and leisure needs of the community as well as protecting and enhancing the natural environment for its intrinsic value.									
<b>Performance Measure</b>	2013-2014 Target	2013-2014 Result	2014-2015 Target	2014-2015 Result	2015-2016 Target	2015-2016 Result	2016-2017 Target	2016-2017 Result	2018-28 Target
Average satisfaction rating of sports codes with sports parks	80%	84%	80%	93%	80%	82%	82%	-	80%
Residents' satisfaction with neighbourhood, civic space, cultural heritage, public gardens, and recreational and ecological linkages parks	80%	96%	80%	96%	80%	96%	82%	-	90%
<b>LOS3</b>									
Council will convert or upgrade identified existing open spaces to provide a wider range of high quality recreational and leisure opportunities within the District for our community and visitors.									
<b>Performance Measure</b>	2013-2014 Target	2013-2014 Result	2014-2015 Target	2014-2015 Result	2015-2016 Target	2015-2016 Result	2016-2017 Target	2016-2017 Result	2018-28 Target
Hectares of open space land transformed.	0	0.5	0.37	0	1.2	0.1198	0.5	2.4000	-
Residents perception that council is making sufficient investment in developing a strong sense of place for the district and its communities	New				>70%	74%	>70%	74%	>70%
<b>LOS4</b>									
Council will provide and maintain cemeteries and a crematorium in a satisfactory manner.									
<b>Performance Measure</b>	2013-2014 Target	2013-2014 Result	2014-2015 Target	2014-2015 Result	2015-2016 Target	2015-2016 Result	2016-2017 Target	2016-2017 Result	2018-28 Target
Residents' satisfaction with cemeteries	90%	97%	90%	95%	90%	96%	90%	-	90%

**Table 2****Changes to the LOS**

Parks LOS statements performance measures are based upon customer satisfaction (excluding LOS 1). Customer satisfaction surveys do not accurately quantify our goals and these statements would be better supported by adopting appropriate specific Performance/Technical measures as in LOS 1.

Some existing technical measures will require consideration for removal as they are either difficult to accurately record, repeat the calculation or are of little benefit. Meaningful performance measures will be repeatable and better measure change in LOS.

SportsParks are currently the only activity predicting a future excess capacity in playable hours, this higher provision may be considered a more appropriate LOS!

### 1.3 Current state of assets / condition assessments

Trees are the only asset group which are comprehensively and regularly condition rated. The balance of our assets lack condition data, however in-house knowledge and regular auditing provides a good feel for the overall condition to enable optimised decision making programmes for maintenance and capital work. This creates some risk from relying on institutional and incumbent contractor knowledge.

High value assets in particular would benefit from regular condition assessment, reducing risk and improving asset management e.g. Parks structures, Coastal structures and Seawalls, Buildings

Key issues and problem statements are highlighted below in Table 3

Key issue	Problem Statement
Land provision	<b>WDC is well below the National average for managed land provision. Urban intensification and increasing purchase costs place strategic location and purchase costs under pressure. LOS and performance targets need to be adopted to ensure the future provision of open space, i.e. the proposal to match national benchmarking levels of open space, is a political decision.</b>
Operational budgets	<b>New and vested assets require additional Operational funding; current funding must continually be prioritised to service an increased asset base to maintain customer satisfaction. High level review is underway to allow for planned projects</b>
Trees	<b>Budget reductions have resulted in deferred maintenance. Increased CRM's and reactive work is putting more demand on budgets, lower LOS, and increased risk to the public. This contract will be tendered shortly, in-house workshops are identifying deliverables to aid in decision making</b>
Field Data Mobility	<b>Parks is unique in that the majority of its assets are above ground meaning validation is a feasible option. Lack of data confidence means a degree of risk is priced into contracts and an over reliance on manual adjustment to Renewal programmes is required i.e. a heavy reliance upon incumbent contractor and existing staff knowledge.</b>

**Table 3**

In addition to the 4 Key issues several smaller issues are identified below in Table 4 which will be addressed in the AMP and LTP

Issue	Problem
Coastal Structures & Seawalls	<b>No recent condition data exists. Regular qualified assessment of these structures is required for safety purposes and to revise Maintenance and Renewal programmes</b>
Asset ownership/Found assets	<b>Ongoing validation of the organisations assets highlights the need for maintenance and renewal of assets previously not provisioned for. A mixture of Field Data Mobility, internal analysis and external reports are required to quantify, plan and provision for this issue</b>
Noxious weeds	<b>Backlog is placing pressure on our LOS target for this area. Options such as increased weed control and strategic replanting will result in reduced maintenance costs and improved environmental outcomes. e.g. Otaika stream margins or Barge Showgrounds wetlands</b>
Capital Projects	<b>Historical data from improved project Capitalisation processes has enabled better GAP analysis on future project costs</b>

	highlighting shortfall on initial cost estimates
Boat ramp carparking	Provision of adequate carparking capacity adjacent to boat ramps is an identified issue. Analysis of capacity and a performance measure should be considered

**Table 4**

## 1.4 Funding levels

### Current LTP Capex funding versus Best for Asset (BFA)

The lifecycle management of the parks activity has been derived from two planning models. They are:

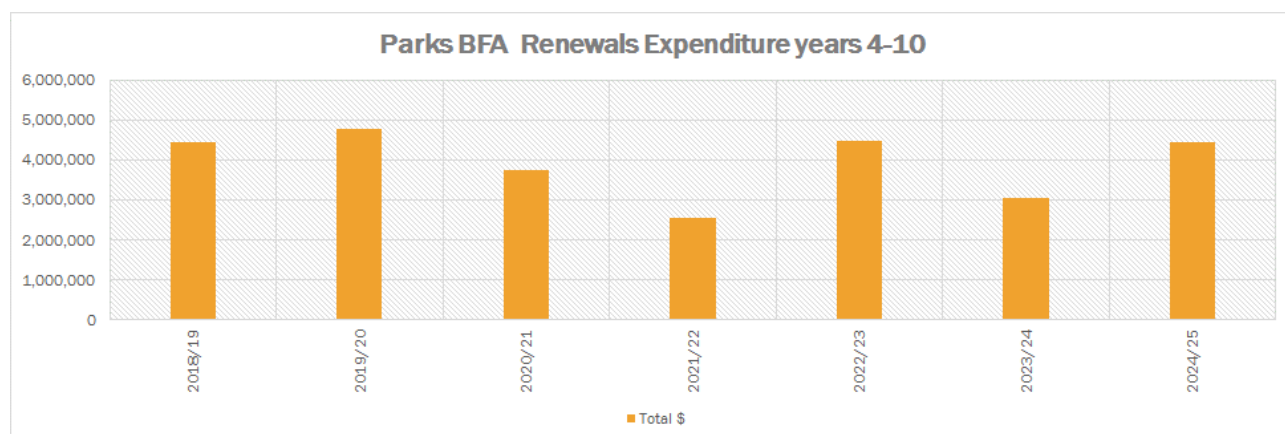
- Best for Asset (Lowest cost over life of asset)
- Best achievable with available funding (LTP constrained financial envelope)

The BFA asset model considers:

- Asset life - Renewals profile based upon typical asset life and replacement cost
- Asset condition - where available data enables Optimised decision making to modify Renewal profiles

BFA is driven by Renewals, Growth and LOS without consideration for funding. LTP is a constrained financial envelope generally requiring BFA prioritisation resulting in some GAP

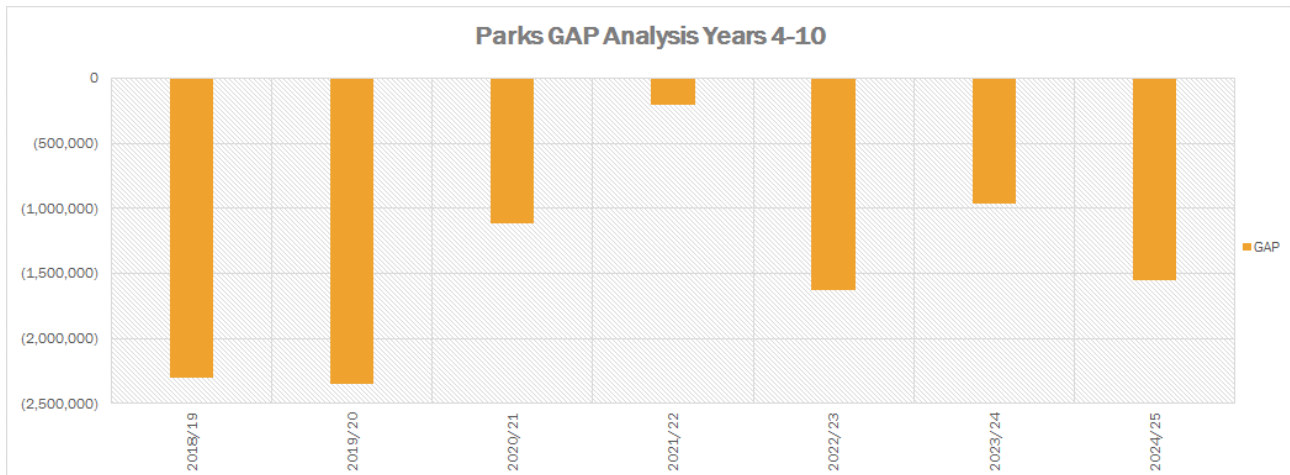
BFA Renewals profile current LTP years 4-10 Table 5

**Table 5**

BFA Renewals versus current LTP Renewals funding Table 6

	2018/19 LTP Year 4	2019/20 LTP Year 5	2020/21 LTP Year 6	2021/22 LTP Year 7	2022/23 LTP Year 8	2023/24 LTP Year 9	2024/25 LTP Year 10
BFA Renewals	4,456,796	4,780,539	3,749,520	2,546,209	4,467,167	3,048,144	4,434,177
LTP Funded Renewals	2,153,602	2,427,627	2,630,246	2,338,973	2,842,052	2,083,498	2,882,489
GAP	(2,303,194)	(2,352,912)	(1,119,274)	(207,236)	(1,625,114)	(964,646)	(1,551,688)

**Table 6**



**Table 7**

Changes in the following LOS sub activity graphs are Growth related based upon LTP funding and current capacity LOS

### Playgrounds & Skateparks

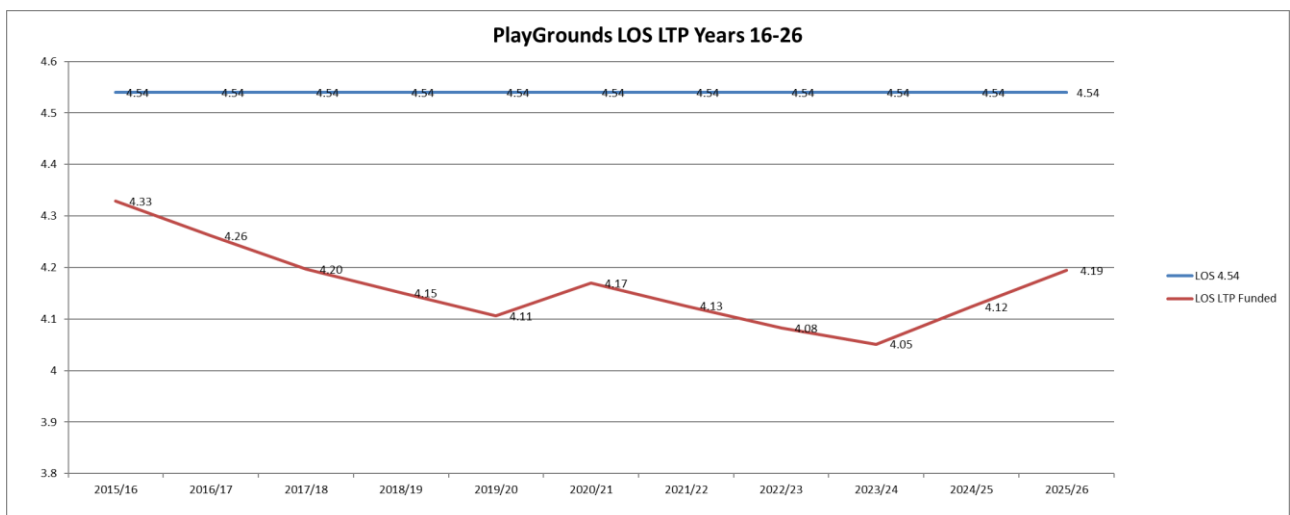
Current funding is sufficient for Renewals, optimised decision making is matching demand with asset condition allowing achievable programs

Auckland City has a Draft report on Play Strategies. See Appendix 4 for extract on 'who is playing':

Link to the report below:

[http://infocouncil.aucklandcouncil.govt.nz/Open/2017/07/WHK\\_20170727\\_AGN\\_7554\\_AT.htm#PDF2\\_ReportName\\_5445\\_0](http://infocouncil.aucklandcouncil.govt.nz/Open/2017/07/WHK_20170727_AGN_7554_AT.htm#PDF2_ReportName_5445_0)

Current Growth caters for the base model Playground and excludes shade protection. Shade sails protect from cancer, inclement weather and lengthen the life of the assets, to provide shade will result in a drop in the future LOS capacity of playgrounds provided (Table 8)



**Table 8**

Using Sherwood Skatepark as a recent project base model, consultant advice and historical analysis confirms upward revised figures for Skatepark renewals, as such we will be unable to meet our future target levels for Skateparks.

### **Why we should invest in Playgrounds & Skateparks**

- Playgrounds and skate parks provide places for youth to play
- Promote healthier active communities – combat obesity, develop basic motor skills
- Readily and freely accessible to all, wealthy and poor alike
- Encourage social interaction, negotiate & build relationships
- Assess personal safety and manage risks
- Manage stress, anxiety, depression and aggression
- Think creatively, make decisions and problem-solve

### **Consequence of not investing**

- We maintain status quo meaning some drop in LOS, provision for Growth will result in some backlog as periodically funding will be required for Health & Safety purposes
- There will be a reduction in LOS for Community amenities programmes. To provide assets that meet customer expectations projects will need to be staged over financial years, deferred to accumulate sufficient funding, or consideration given to new design options and locations.

### **Cemeteries**

Validation of Parks assets is ongoing, high value assets which are incorrectly domiciled or don't reside in the database are being allocated to their correct Activity so future Renewal profiles are more accurate. High value assets such as buildings historically were omitted or not condition assessed: the impact of validation, condition assessment and inclusion is yet to be quantified. However, some existing asset costs reallocated to their correct Activity will be offset by a cost reduction in other Parks activities.

Cemeteries is responding to changes in Public demand with emphasis on burial trends and meeting the needs of ethnic and religious groups e.g. Family or Eco burials. These projects currently have little impact upon maintenance costs.

Land provision exists to meet demand in the immediate future.

A new database is considered the highest LOS priority.

Cemeteries LOS projects are fundamentally aimed at the customer experience therefore the satisfaction surveys are representative in this activity.

### **Why we should invest in Cemeteries**

- Cultural heritage reserves allow us to protect and experience our history. Restoration and enhancement work may be undertaken to recreate lost values and features creating a Sense of Place
- Provide a location for interments and remembrance. The primary objective is to create a respectful environment that is attractive, restful and suitable for reflection and grieving
- Cemeteries require a higher level of development to meet their purpose and visitor needs than other public spaces

### **Consequence of not investing**

- We maintain status quo indicating a shortfall in Renewals, prioritisation of existing and found assets will be required resulting in increased maintenance costs and underperforming assets
- A reduction in LOS (customer experience) as most projects sit outside current funding.

### **Coastal Structures & Seawalls**

No quantifiable measure exists for this activity. Compliance targets are out of date as no recent reports exist. Provision capacity targets for Wharves/Jetties & Pontoons can be benchmarked; however, it has been identified that provision of adequate parking for these assets should be considered a more appropriate measure. With a growing community existing assets are becoming over utilised, especially during seasonal periods such as summer. Public feedback has identified additional parking at Tutukaka marina as an issue

Existing LOS projects (including Safety upgrades) are manageable with the exclusion of the proposed One Tree Point Seawall project

Renewals reports based upon the last onsite structural assessments highlights no funding issues, however a new condition assessment is required which will impact upon future Renewal and Maintenance programs

Increased project costs and consent timelines have an impact upon our capital projects leading to prioritisation

### **Why we should invest in Coastal Structures & Seawalls**

- Provide safe access for the recreational enjoyment of our districts marine environment
- Protect infrastructure and property from the effects of the sea and storm events

### **Consequence of not investing**

- Not addressing compliance standards and identified safety issues puts the safety and well-being of the public at risk.
- Existing issues will worsen
- Increased risk to roads, property, reserves and sensitive ecological environments exposed to damage from storm events

### **Sport and Recreation Capex Summary**

Sports and Recreation requires a balanced distribution of amenities. The temporary loss of capacity, timeline to renew/upgrade, code/club/sporting trends and population changes are challenges whereby over/under capacity will remain a project planning consideration.

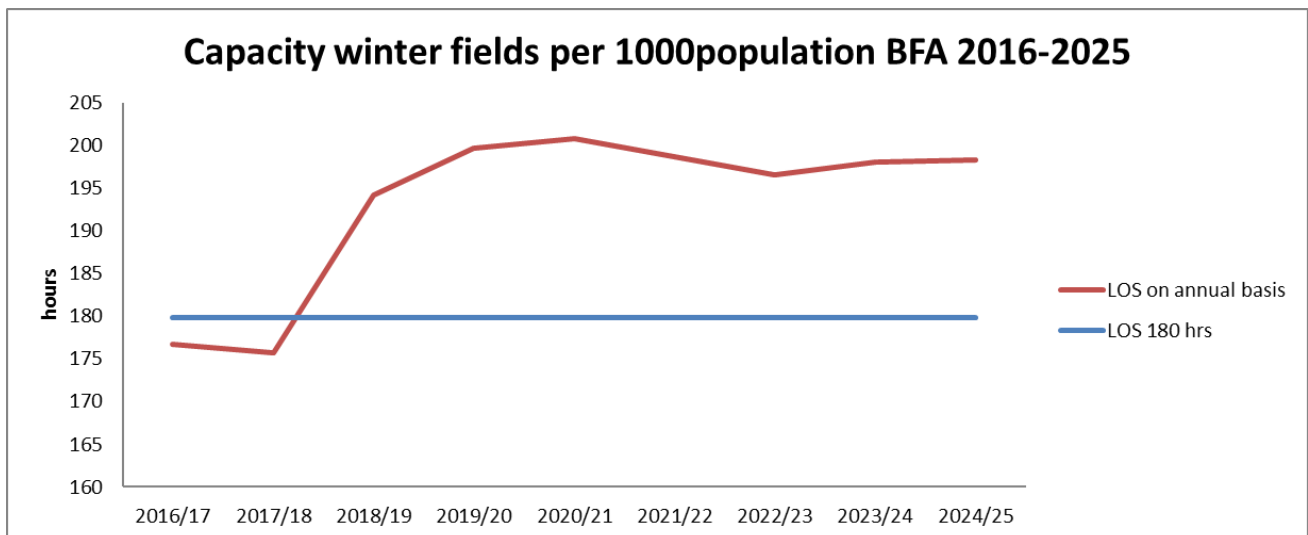
Regarding centralisation or decentralisation of services, the Parks & Recreation department considers the most sustainable economic model for the provision of services to the wider community. An area may benefit from the services provided in their district, and from a positive spill over effect of the amenities provided in other districts.

Most Growth projects are feasible if 50% of existing proposed Land acquisition is not carried out (e.g. Springs Flat carpark). Land is identified as the most important component of Parks & Recreation, shortfall has been identified in the nodes targeted in this programme for acquisition.

The current LOS programme has minimal capacity increases and focuses on amenities and experiences for a diverse range of clubs and codes

For cost efficiencies Renewals contain an element of upgrade (Growth &/or LOS). The completion of the proposed Otaika and Ruakaka upgrades would see a theoretical excess of capacity by 2018. Our current LOS is set at 180hr/1000 residents (winter playable hours) and discussion may be required on setting a new LOS target (Table 9)

There is an under provision of lighting at some of our SportsParks. This limits the full utilization of field hours and presents a health & safety hazard. Some club owned lighting on our fields is becoming unsafe and many clubs have insufficient funds for renewal. Our organisation will need to consider removal of the existing hazardous lighting and reinstatement as a Parks and Recreation asset

**Table 9****Why we should invest in Sport and Recreation**

- Promote Active and Healthy communities
- Encourage and facilitate district wide for a diverse range of sporting codes
- Provide for a range of formal or informal community activities
- Provide facilities for the Health and Safety

**Consequence of not investing**

- Provision of sufficient carparking for SportsParks is an issue for the public
- Clubs sharing facilities, travel for training or matches
- Maintenance costs rise through overuse of existing fields
- Redundant infrastructure is a health and safety hazard

**Neighbourhood & Public Gardens**

Renewals expenditure was smoothed over 30 years to remove unattainable spikes in the expenditure profile. Recent data validation has identified an increase in Renewal costs of approx. \$356/yr for 30years.

The Growth component is for land acquisition, review of Land provision as a LOS is highlighted as a future discussion point.

LOS technical measures are based upon customer feedback and internal audits. Residents generally identify more with the availability of Green space than its level of development, land is a quantifiable measure of this capacity

**Why we should invest in Neighbourhood & Public Gardens**

- They contribute to SOP by being a focal point of a local area, where people can meet and socialise.
- Provide a place for contemplation, venues & events, children's play, walk a dog and attractive amenity
- Provide future opportunities for more intensive development and strategic linkages
- Increased public safety e.g. street lighting, line of sight

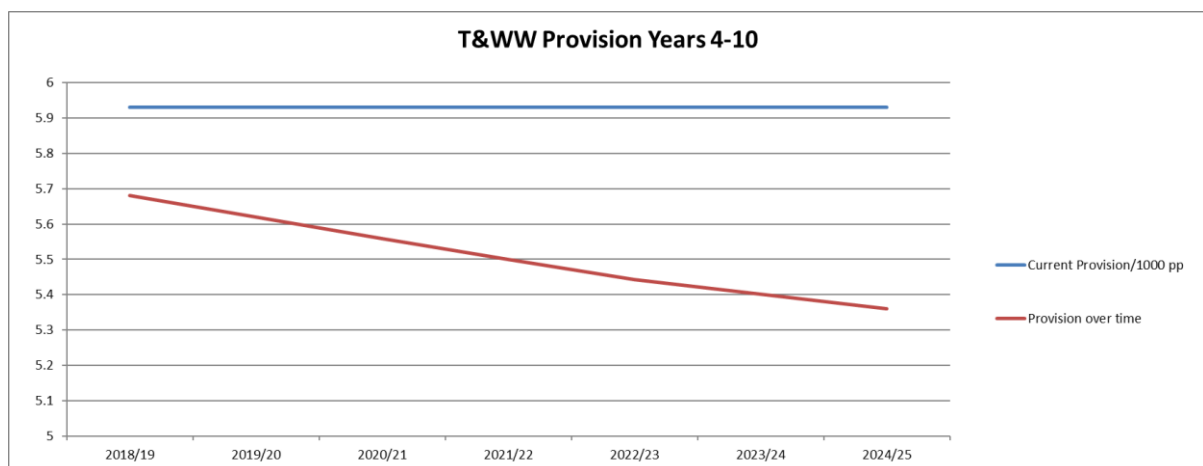


### Consequence of not investing

- More expensive inadequate sites due to urban intensification
- Assets may be removed without replacement
- Increasing backlog means a drop in current LOS
- Rising maintenance costs on underperforming assets

### Recreation & Ecological Linkages

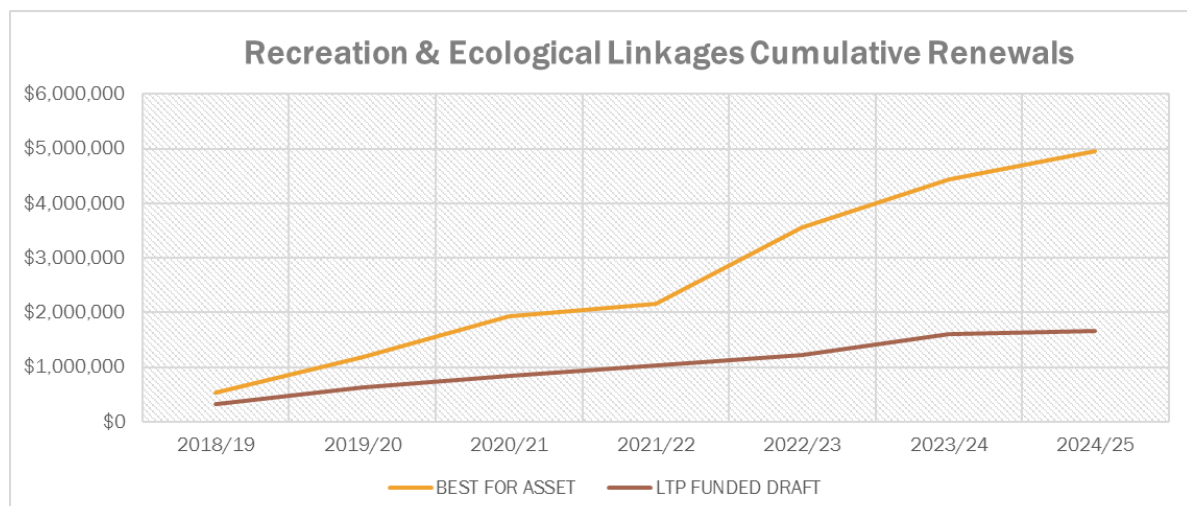
Previous public feedback indicated satisfaction with our current length capacity of Tracks and Walkways (T&WW) with residents expressing a desire for improved standards on the existing network. The current T&WW provision is shown below simply to bench-mark current capacity against Growth (Table 10)



**Table 10**

Metres of Track brought up to a national standard is a technical target which correlates well to meeting the identified public opinion. For cost efficiencies T&WW are upgraded during Renewal and to date we are meeting our targets. Improved T&WW standards are mainly design based with some additional features, therefore there is little change on Renewal or maintenance costs.

Historically track surfaces weren't capitalised, the inclusion of the surface will improve Renewal and depreciation reporting, however this validation of the actual maintained T&WW programme has increased our known asset base and therefore the forecast renewal profile. Table 11 below is a cumulative renewals expenditure profile for BFA and LTP



**Table 11**

### Why we should invest in Recreation & Ecological Linkages

- Tracks and walkways provide linear recreation spaces for a range of activities and experiences.
- Walking and running are popular and valuable recreation activities that enhance the health and well-being of participants from a range of age groups and fitness levels while offering a variety of experiences and information about the natural environment
- Enable safe and freer movement around the district
- Promote healthy modes of transportation other than vehicles

### Consequence of not investing

- At odds with the Community Outcome 'Easy and Safe to move around'
- Does not meet customer feedback requesting upgrading existing tracks
- LOS will drop as provision is not made for locals or visitors at popular destination spots
- Risk of storm events degrading sites due to deferred upgrade/Renewals/maintenance
- Increased maintenance costs

## 1.5 Environmental Scan

Growth – The model used for Growth projection is the current Statistics NZ medium projection indicating growth in 5 yearly blocks of:

2018 @1.66%

2023 @1.10%

2028 @0.77%

Current growth projections until 2028 are considerably higher than previously forecast, growth rate then declines so by 2043 the resident population more closely aligns with previous models. Further analysis of area nodes for future provision is required, actual census figures will be reviewed against forecast to determine how projections are tracking. Short term implications are a general reduction in LOS (capacity)

Urban intensification and rising land values are increasing purchase costs and reducing strategic opportunities

Environmental – Whangarei is a sub-tropical region with a diverse landscape subject to storm events. The Parks activity is generally responsive and adaptable over time to changes and sea level rise. No contingency is kept for storm events, in particular T&WW are subject to damage without provision for repair. Sportsfields with well drained sand carpet fields can recover quickly and continue to provide excellent LOS. Where provided well maintained Coastal structures and Seawalls reduce risk to infrastructure, however increased inspection programmes may be required for safety purposes and to mitigate costly repairs

Resilience – Most of our existing assets are above ground and can be relocated or replaced elsewhere if required enabling us to:

- Consolidate our network of infrastructure
- Re-purpose land
- Utilize existing assets from another site or store parts from disposed assets to negate obsolescence or to extend life
- Our strategic approach reviews current assets with a view to growing over time  
e.g. Sports fields - acquire and develop more land or increase the capacity of existing through new technologies and process advances

## 1.6 High level strategic direction

### By Activity

- **Playground** - Community consultation on 'what to build' options is proving a valuable community engagement exercise for now and foreseeable future. To provide protection from the elements for health and safety, particularly where shelter from trees is not practical. Provision of Playgrounds and Skateparks may require staged renewals/new to ensure LOS and play opportunities are maintained. Review of Playground and Skatepark location is a critical match with demographics, where 'Do we replace' is an important supply and demand question. Strategies to address provision GAPS of Play areas for over 8 years olds, disabled, adults and seniors
- **Cemeteries** - Use of in-house staff for cost savings on projects will continue, this contribution needs to be realised during Capitalisation to reflect true project costs and recognise staff productivity. Ongoing validation of assets is expected to increase Operational and Renewal costs, a reduction in LOS may result from project prioritisation and deferred renewals.
- **Coastal structures & Seawalls** - Regular inspection and monitoring for safety compliance and robust programmes. Complete consents, design and pricing in the year prior to build. Review of boat ramp carparking capacity will result in new LOS demand strategies
- **Sport & Recreation** - Removal and/or replacement of private expired assets on parks land by council will require consideration. Whereby LOS capacity is unchanged then priority should be given to other non-capacity SportsPark amenities. Review population trends for land provision and identify practical alternatives
- **Neighbourhood Parks and Gardens** - Despite smoothing bow waves high yearly renewal expectations still exist (increasing Backlog), this expenditure will be required at some point therefore ongoing asset validation and condition rating for prudent renewal packages is required. Review of existing Parks to identify high profile/premier parks for renewals over low profile parks is an option. Similar to Playgrounds renewal may occur as a complete package, some asset lives may be extended, others shortened, this methodology will provide a consistent look and facilitate the planning and tendering process.

The strategic acquisition of Land is a viable interim alternative until renewal packages are identified.

- **Recreation & Ecological Linkages (T&WW)** – Increased Renewals profile may lead to prioritisation, deferred programmes, reduction in maintained T&WW. Adequate maintenance programmes may give flexibility at specific sites

We need to review options other than improved signage and online media to showcase our districts network and ensure public utilization.

### Across Parks & Recreation

- Review Land requirements district wide and at a Nodal level
- Specific asset condition assessments and reports
- Maintain/ Increase/ decrease current funding levels and current strategy
- Renewals over New assets
- Identify additional Operational funding for new LTP projects, monitor actuals against predicted
- To continuously improve our asset knowledge, asset Systems capability and continuously review our asset assumptions
- **SOP** - Review existing projects to determine their correct driver (Parks or SOP) and domicile under appropriate activity for clearer project scope and funding levels

## 1.7 Progress and changes since the last LTP (15-25)

Asset Management Policy and Strategy documents have been developed based on the International Infrastructure Management Manual (IIMM). These are being used in the development of the 2018 Parks and Recreation AMP.

Validation, tagging assets to their activity, categorisation and revaluation review has resulted in more accurate renewal profiles and manageable database.

Strategies for continual improvement are identified in our Improvement AMP (IAMP).

## 2 The next 10-30 years

### 2.1 Issues

Key issues in order of priority:

1. **Operational expenses** - Increasing Operational budget costs due to increased capacity, lack of contractors (market forces), new and vested assets.
2. **Renewals** profiles – Comparison of previous AMP Renewals indicates increasing cost. New and vested assets are a factor
3. **Land** - Provision of land has been identified as the biggest risk to the Parks and Recreation department primarily due to urban intensification.
4. **Trees** - The backlog of work is increasing under the current operational model. The impact of insufficient funding is delayed for several years creating a false impression of sustainability in the prior period. Currently CRM's continue to redirect resources into unplanned reactive work adding to the backlog. The contract is due for tender which will enable us to quantify the issue and forecast over time.
5. **Inspection reports** – Periodic specialised reports and condition assessment particularly for Buildings, Parks structures, Coastal structures and Seawalls for compliance, safety purposes and to allow for maintenance costs
6. **Field data Mobility** - Asset data accuracy varies across the activities; however good in-house asset knowledge enables optimised decision making to generate and prioritise future work programmes. A mobile field data capture system is required to improve data, condition rate assets and generate meaningful Renewal profiles. A well-structured platform would provide benefits across I&S as opposed to the Parks department alone. Our ability to justify and expedite entry of Found assets would minimise our exposure to Audit and free up internal resources

### 2.2 Risks

- Review of estimated costs against actual indicates project costs are escalating.
- Better asset data and external reports highlight increased asset maintenance costs, shortened lives and increased depreciation. Renewal and Operational funding gaps will grow requiring prioritisation and drop in LOS
- Population growth is significantly higher or changes in growth nodes. Land acquisition and timing of provision will be problematic, more expensive whilst providing lesser opportunities
- Current Best for Asset indicates an increase of approx. \$13.2 million over years 4-10 when compared against the previous AMP (excluding Land & SOP)
- Found assets and the inclusion of Assets renewed (but previously not valued) will increase the value of WDC asset base, depreciation and future Renewals expenditure e.g. T&WW, Sportsfields, Buildings. Therefore some report Renewal profiles are less than that identified in activities

## 2.3 Funding policies

Funding is expected to come from general rates. Where appropriate a targeted rate mechanism may be used in agreement with the community affected.

Targeted rates may be levied to fund specific projects e.g. coastal protection

Revenue is generated by the following activities:

- Cemeteries and Crematoria
- Sports parks
- Leases and Licences

The level of recovery is set by Council in accordance with the Rating and Funding Policy. The rate of recovery varies dependant on the activity and the benefit it provides to the wider community.

All revenue collected offsets funding by rates within the activity.

Development contributions will be charged on the best available information related to the growth component of any capital works approved.

As per the Asset Management Policy, funding is based upon renewals/repairs first before new projects, unless there is consultation/direction to do otherwise.

## 3 Council direction needed:

### 3.1 High-level strategy for this LTP (18-28)

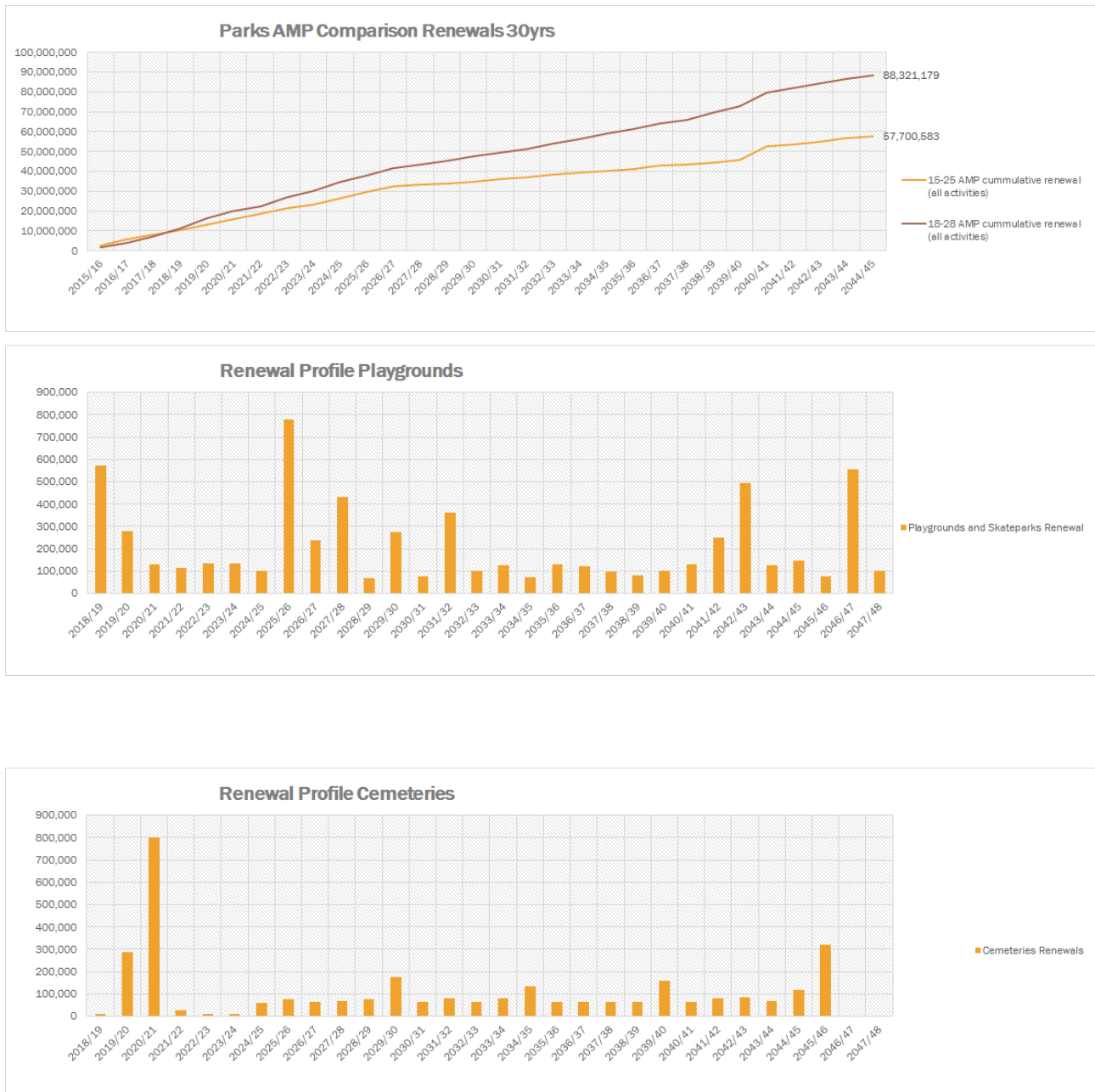
Our proposed strategy is outlined in section 1.6 'By Activity' and 'Across Parks'. It is based on asset needs therefore the key directions are whether adequate funding will be provided for the identified renewals and other requirements.

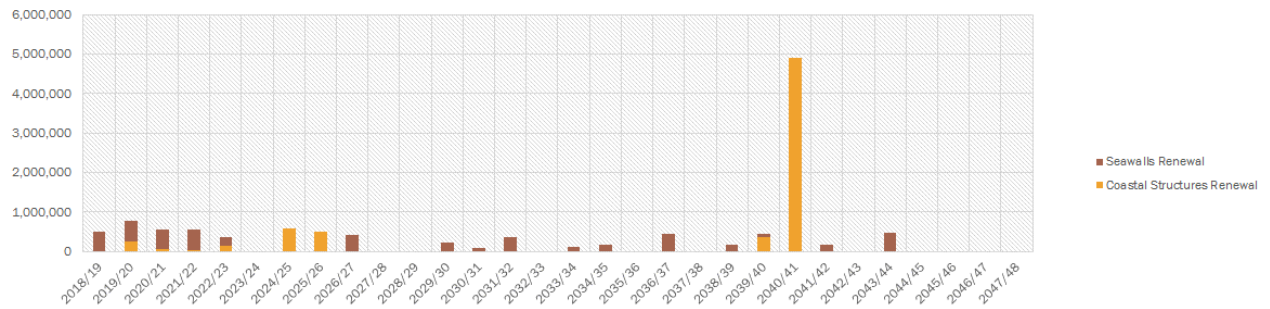
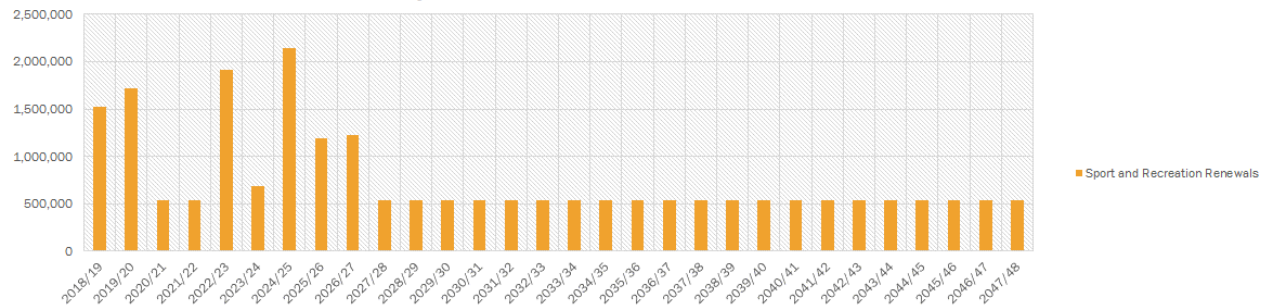
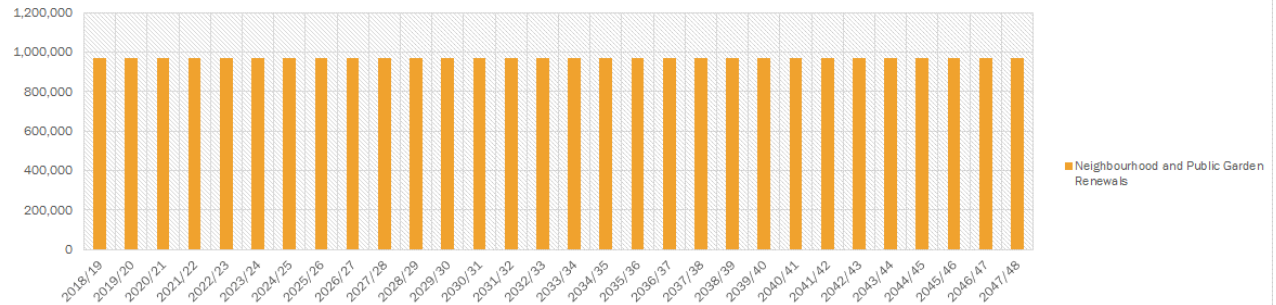
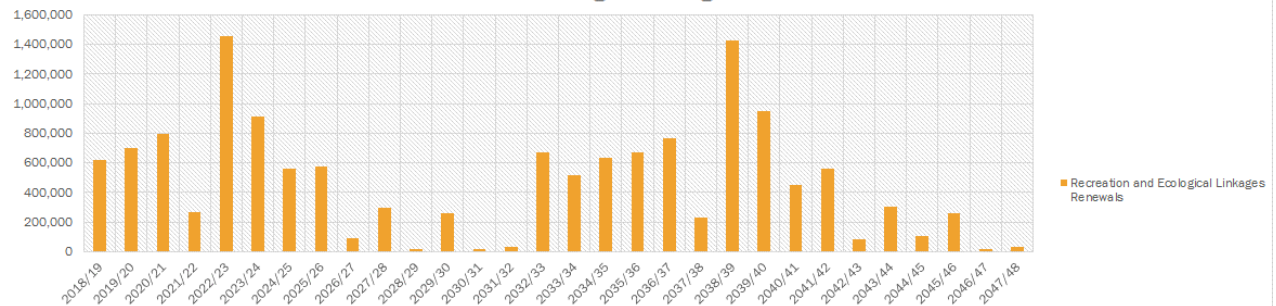
### 3.2 Specific points requiring council direction

- Possible tools for acquisition of land for open space - zoning future reserves, financial/development contributions
- Consider future Operational funding impacts from new/vested assets
- Increasing Tree work backlog is exposing council to greater risk from failing Trees  
Field data mobility package for asset validation, condition rating, contract management

## 4 Appendices

### Appendix 1 Parks Activities 30 Year Renewal profiles



**Renewal Profile Coastal Structures & Seawalls**

**Renewal Profile Sport & Recreation**

**Renewal Profile Neighbourhood Parks & Gardens**

**Renewal Profile Recreation & Ecological Linkages**




## Appendix 2 Investing in Play

### 3 Current demand for play

Aucklanders are spending less time playing outdoors due to safety concerns, barriers to access, and the influence of technology. Current play provision is not meeting the needs of all Aucklanders.

#### Who is playing?

There is minimal data around who is currently playing. Broadly, we know that New Zealand children are not playing as much as previous generations.<sup>2</sup>

Forty-six per cent of children between the ages of eight to 12 years are not playing every day. Between 50 and 70 per cent of children do not regularly experience 'real' play activities such as tree climbing, messy play (involving paint, mud, dirt, sand and water) and the use of hand tools, props or found natural materials.<sup>3</sup>

Despite evidence that play can benefit anyone, most council play areas are targeted at able-bodied two to seven year olds.

A study of council play investment identified gaps in provision for:

- children over the age of eight years (40 per cent of Auckland's population is 19 years of age or younger)
- adults and seniors (the number of people aged over 65 years is expected to increase by 188,669 by 2033)
- people with disabilities, including mental disabilities (one in four New Zealanders was identified as having a disability in 2013).

#### Youth

A New Zealand study found that traditional playgrounds are not challenging enough for children over the age of eight years.<sup>4</sup>

The council does have some play space dedicated to youth interests including skate parks, basketball half courts and BMX tracks. These types of play are typically favoured by young men.

Our existing youth spaces seem to lack:

- natural elements or play in natural spaces
- diversity of play experiences, particularly for young women
- opportunities to experience risk and challenge
- opportunities for social interaction with other age groups.

#### Adults

Our existing playgrounds do not provide the challenge or diversity of experience needed to appeal to adults.

In 2014, 78 per cent of Auckland adults participated in sport or recreation in any given week.<sup>5</sup> While sport provides many of the same personal benefits as play, research shows that play is more effective at relieving stress in adults. Play also provides unique opportunities for adults and children to interact as equals.

#### Seniors (over 65 years)

Few of our existing play spaces are designed to engage seniors. There are examples where park gym equipment is used to provide for seniors' play needs. However, exercise is different from play and does not offer much diversity of experience.

#### Disabled persons

The council has few play spaces specifically designed for people with disabilities. In particular, there is a lack of provision for mental disabilities such as autism and attention deficit hyperactivity disorder (ADHD). Provision of suitably designed spaces would foster participation and allow caregivers to relax while children play.

#### Ethnic minorities

There is little local information on how well the council's current investment in play meets the needs of Auckland's 180 different ethnicities.

Play builds social cohesion and can help children and adults to cope with changes in cultural environments.

Different cultures have different family structures and attitudes towards children. This may have implications on play value and play participation. For example, in some cultures children, particularly girls, have limited freedom of choice and movement, meaning they are likely to play closer to home.



# Parks and Recreation

LTP 18-28 Activity Group Briefing



# Services We Provide

- Neighbourhood Parks & Gardens
- Recreation & Sportsfields
- Playgrounds & Skateparks
- Coastal Structures & Seawalls
- Walkways & Tracks
- Culture & Heritage (Cemeteries)
- Botanica
- Trees



# Key Issues

- Land provision
- Increasing Operational budgets (facilities / vested / new assets)
- Capital project costs increasing
- Tree maintenance backlog
- Renewals backlog / profiles increasing
- Asset data (field mobility / validation / condition reports)

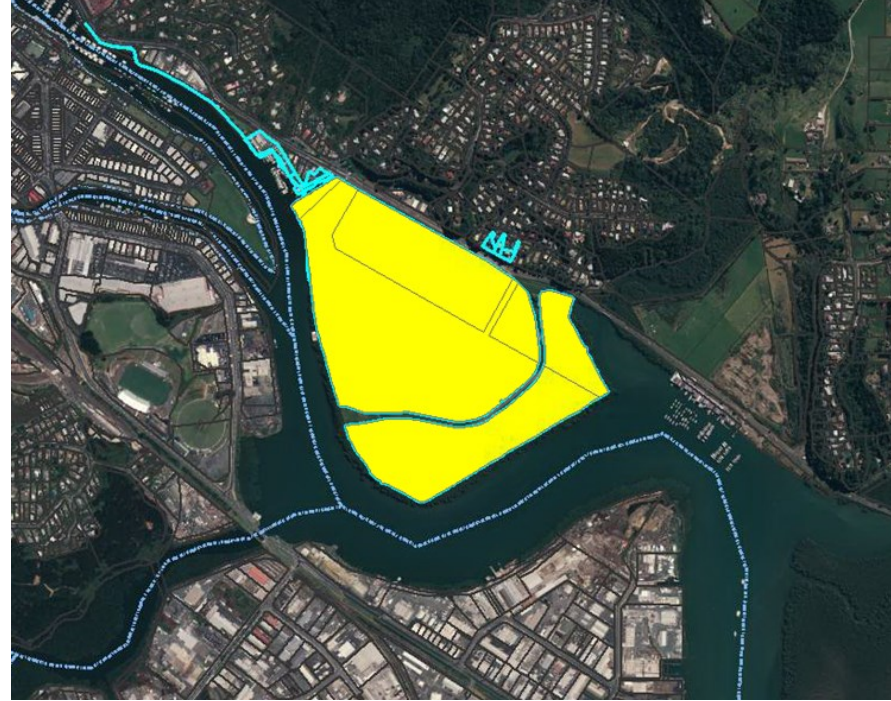


# Facilities

- Recent condition reports are highlighting increased maintenance costs and shortened lives.
- Some assets previously maintained by other departments are now to be maintained by Parks & Recreation, additional funding will be required e.g. Canopy Bridge
- Facility maintenance grants e.g. NAGST, WAC, Kensington Stadium, Hockey Turf
- Major x 2 e.g. Kensington Cricket Building
- Residential x 8. Previously Maintained by property department
- Ancillary x 11 e.g. Kensington Ave workshop
- Botanica x 8
- Cemetery x 6 e.g. Crematorium
- Other x 2



# Land Provision



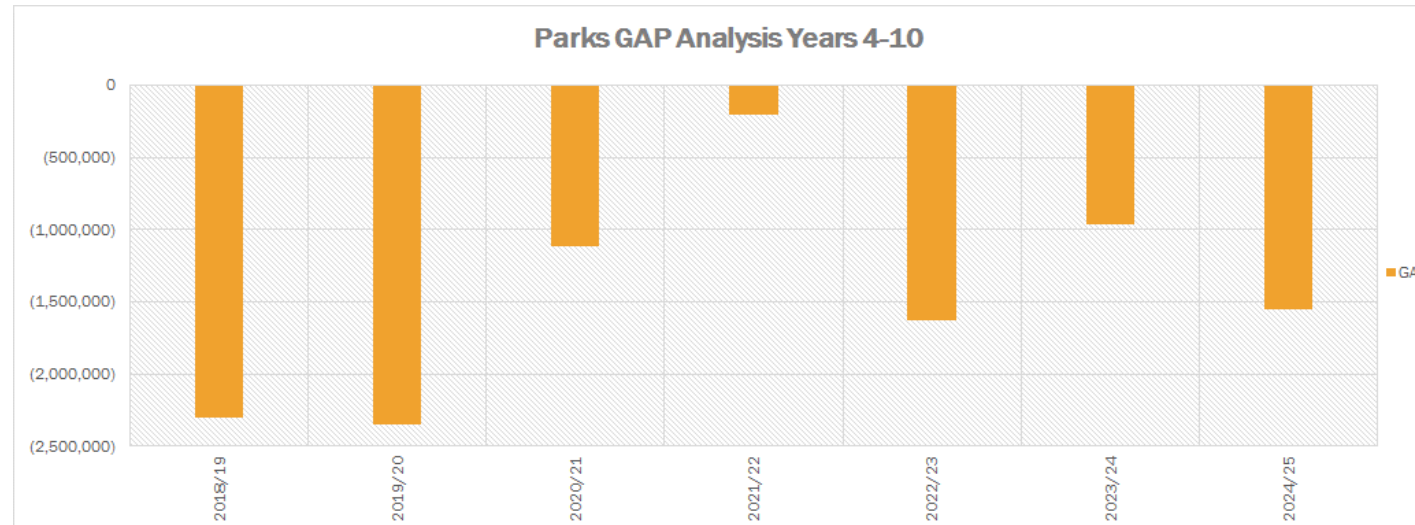
## Pohe Island – 51.6 Hectares

50-69Ha of Land required over next 10 years to maintain current capacity 5.9Ha/1000 residents



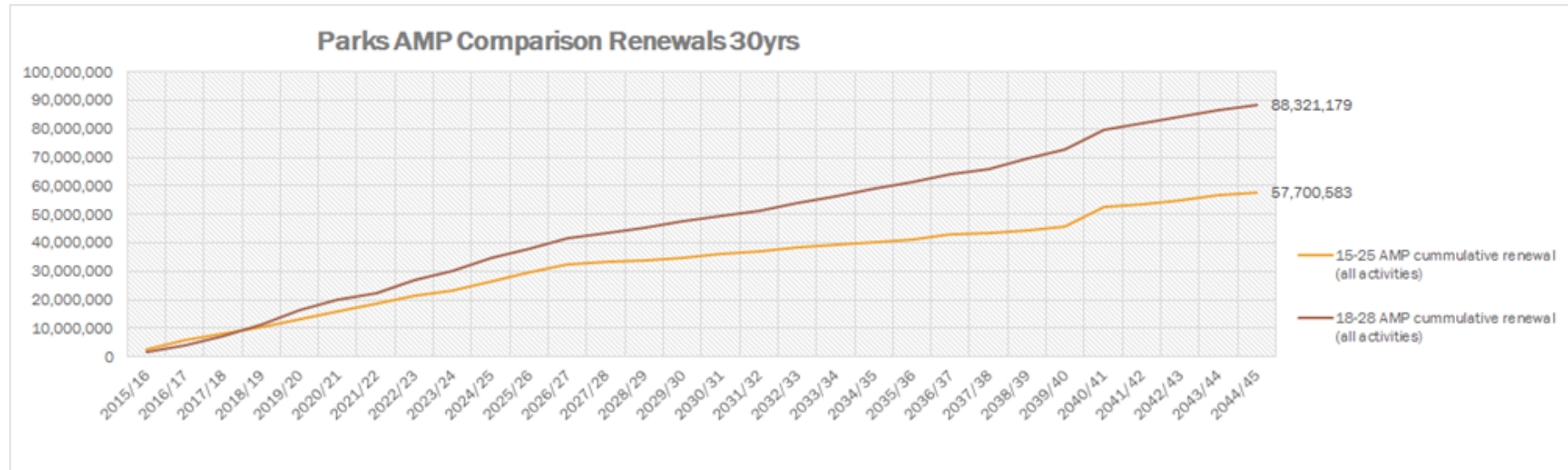
## Current LTP Years 4-10 Renewals Gap Analysis

- Generally our ability to manage Renewals expenditure is best met by incremental increases during the early years of the LTP.
- Parks & Gardens Renewals backlog requires addressing in the early LTP years. Successive years may be reduced.





# AMP Renewals Comparison



# Recent Projects







## Sportsfields – Kensington Cricket Building



## Parks & Gardens – Frying Pan Corner





## Parks & Gardens - Vehicle Damage Protection







## Tracks & Walkways - McKinnon Upgrade







Playground - Awatea







## Coastal Structures – Hatea Loop Jetty



## Sense Of Place – Pocket Park





## Seawall (Groynes) – Pataua South

