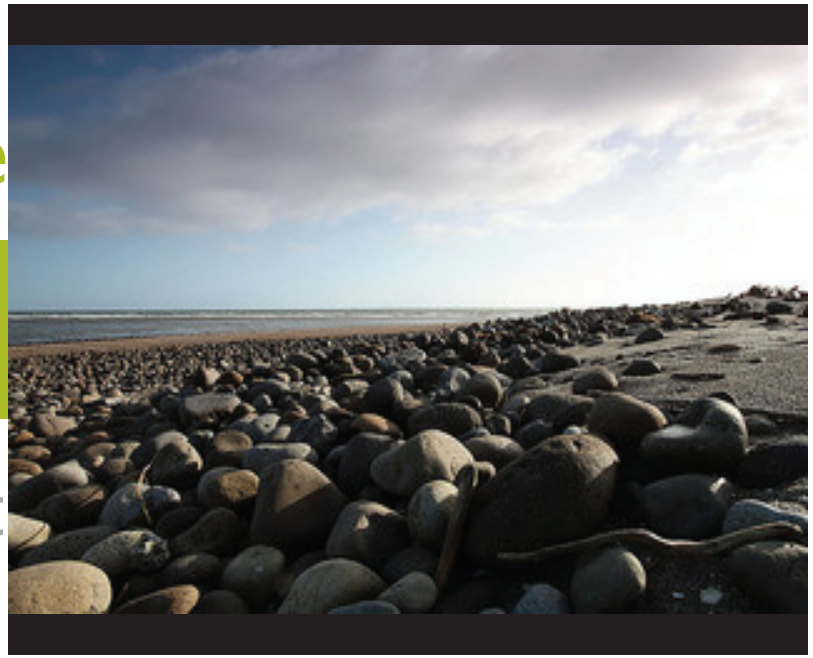
Katikati Solid waste Ongare Point Community building Te Kahika
Paengaroa Protection Pongakawa Regulatory services Omokoroa
Swales Water supply Little Waihi Representation Minden Environment
Tuapiro Point Libraries & service centres Pios Beach Watercources
Tanners Point Well-being Waihi Beach
Te Puna West Transportation Athenree

STORMWATER



Civil defence & emergency management
Kaimai Rural Aongatete Open channels
Island View Economic Te Puke Natural environment Rogers Road
Planning for the future Pios Beach Overland flow paths Maketu
Te Kauri Village Support services Pukehina Beach Wastewater
Community facilities Drains Plummers Point Manholes Pios Beach

STORMWATER

Overview

Stormwater systems are built to protect buildings and property from the effects of flooding and coastal erosion. These systems include watercourses, open channels, swales and structures that channel stormwater to a final discharge point. Our systems include primary and secondary overland flow paths, stormwater detention and stormwater treatment.

There are legislative requirements regarding the quality and quantity of stormwater released and we must meet these statutory obligations.

Under the Resource Management Act 1991 district councils must manage land use in a way that minimises environmental effects. Regional councils are responsible for controlling the use of land for the maintenance of water quality in water bodies and coastal water.

Over the ten year period of this Plan we propose to retain ownership of stormwater infrastructure and be responsible for stormwater management. Day-to-day maintenance of the system will be provided by our external utility services contractors.

Demand for stormwater services is managed in accordance with our Development Code and corresponding levels of service. Levels of service are currently set to meet legislative requirements and are related to both the containment of water within the system under varying flood conditions and the quantity and quality of water released into the environment.

Under our Development Code and the resource consent process for subdivision developers are required to make adequate provision for the collection and disposal of stormwater runoff from hard surfaces created through the development process. This may result in vesting of new stormwater infrastructure in Council, where appropriate.

As the need for stormwater management increases with the intensification of development, changes to the design of stormwater infrastructure are required in accordance with our level of service for stormwater.

We manage three broad stormwater management areas:

Urban growth nodes
These are the main urban areas within our District that are planned for future urban development and expansion. They will have significant stormwater infrastructure and the greatest potential to affect receiving environments.

Small settlements
These are small urban settlements that have some stormwater infrastructure but it is generally of low capital value when compared to the infrastructure in urban growth nodes.

Rural settlements
These areas include land zoned rural as well as rural villages that have fewer than 50 residential dwellings. These areas are provided for by the stormwater infrastructure that is supplied as part of the roading system.

Urban		Rural
Urban growth nodes	**Small settlements**	**Rural settlements**
Katikati Omokoroa Te Puke Waihi Beach (including Island View/Pios Beach, Athenree)	Kauri Point Maketu Minden Ongare Point Paengaroa Pukehina Beach Tanners Point Te Puna	Little Waihi Plummers Point Pongakawa Rogers Road Te Kahika Tuapiro **All other rural areas**

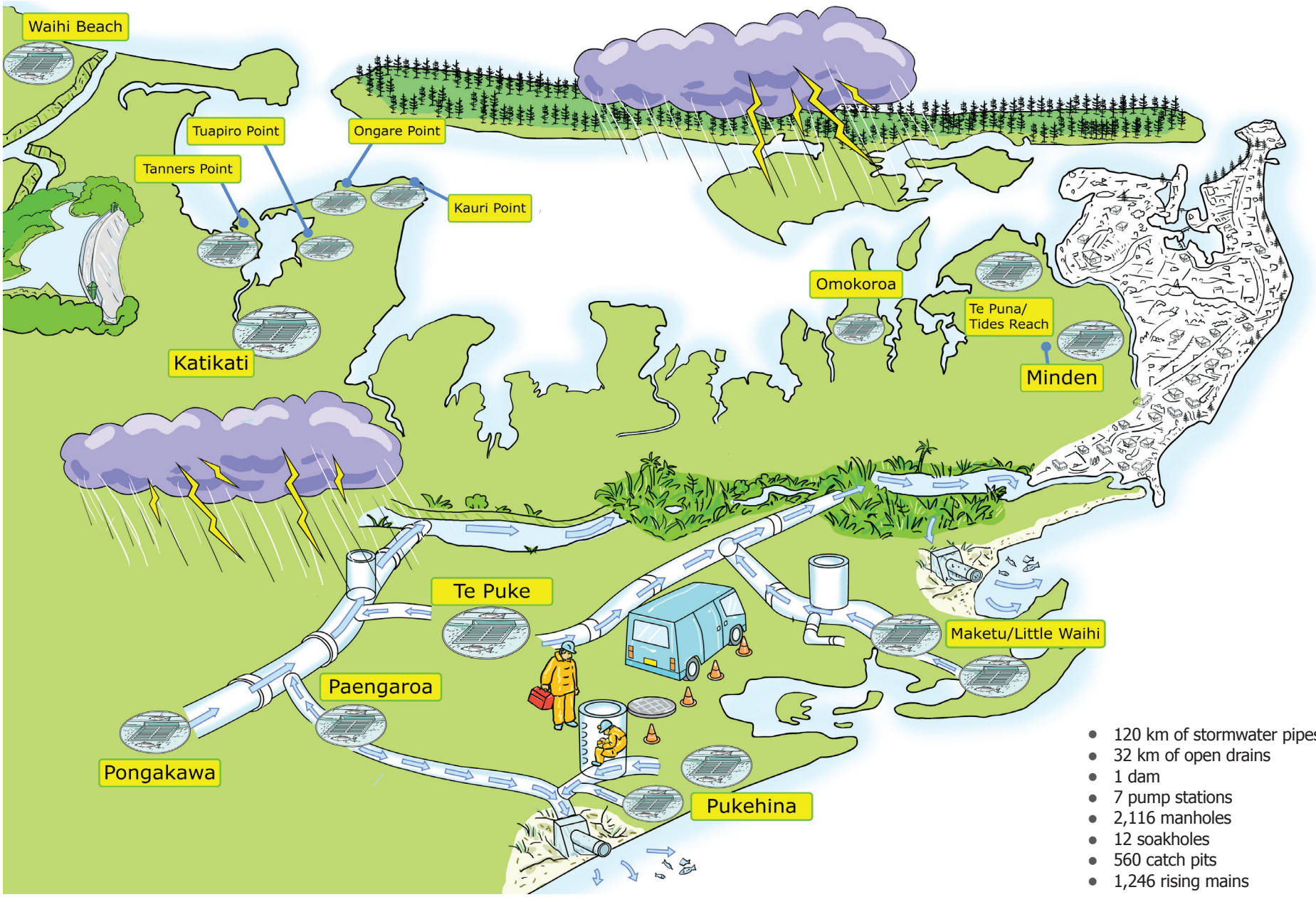
The Minden area has its own potential geotechnical challenges and specific District Plan rules surrounding the management of stormwater during subdivision and development are now in place to account for this. Overland flow paths are identified in the Minden Lifestyle Zone Structure Plan and new stormwater works may be proposed as a result of development in the future.

Over time the level of service required under legislation has increased and may increase again in the future. As a result not all the stormwater infrastructure in our District currently meets the legislative requirements or our Development Code. To address this our capital works programme for 2012-22 focuses on essential upgrades and maintenance to ensure compliance with current levels of service. Some structure plan work can be postponed because new growth assumptions indicate that a later timing is now appropriate. Stormwater in small settlements will be upgraded over time to achieve at least a minimum level of service.

Currently stormwater is funded by a flat charge levied on each rateable property within the relevant stormwater catchment.

During the next review of our Stormwater Strategy we may consider the option of amalgamating the Uniform Annual Charges for this activity.

What we provide



- 120 km of stormwater pipes
- 32 km of open drains
- 1 dam
- 7 pump stations
- 2,116 manholes
- 12 soakholes
- 560 catch pits
- 1,246 rising mains

Why we provide it

Our community outcome

Stormwater networks are designed and managed to meet community and environmental needs

Our goals

1. Stormwater systems in Urban Growth Nodes are progressively upgraded to comply with adopted Structure Plans
2. Existing stormwater systems in Small Settlements are progressively upgraded to provide a minimum level of service
3. Urban development is avoided in flood-prone areas unless mitigation measures can be provided
4. Communities are consulted and informed about various approaches to stormwater management and their views are sought and taken into account
5. Compliance and monitoring activities are carried out

- ⇨ Stormwater is managed through 'stormwater networks' which are made up of pipes and open channels linked together to drain stormwater to streams, rivers and the ocean
- ⇨ The total value of the stormwater system throughout the entire Western Bay of Plenty District (not including roading related stormwater assets) in 2011 was $69 million
- ⇨ Stormwater systems are in place, throughout all areas of our District, ranging in size from small pipes leading to small roadside swales (in rural areas), to networks of large pipes and culverts (in urban areas)

How we will achieve our community outcome

Goal	Our approach	Our role
Stormwater systems in Urban Growth Nodes are progressively upgraded to comply with adopted Structure Plans	▶ Works to achieve the higher levels of service for urban growth nodes will be undertaken as set out in our structure plans	Lead
	▶ Development of structure plans will consider alternative methods of management and disposal of stormwater	Lead
Existing stormwater systems in Small Settlements are progressively upgraded to provide a minimum level of service	▶ In providing a minimum level of service alternative stormwater management approaches may be undertaken. This will include cost benefit analyses of the various approaches and investigations into management methodologies whereby water is viewed as a resource	Lead
Urban development is avoided in flood-prone areas unless mitigation measures can be provided	▶ All development avoids flood-prone and coastal protection areas or mitigates the hazard through design solutions acceptable to us	Lead
Communities are consulted and informed about various approaches to stormwater management and their views are sought and taken into account	▶ Provide adequate information so that residents are fully informed about stormwater issues and responsibilities	Lead
	▶ Discuss and explain the philosophy of the different approaches to stormwater with the community	Lead
	▶ Explore the use of incentives to encourage run-off containment on sites	Lead
Compliance and monitoring activities are carried out	▶ Ensure all necessary resource consents for stormwater works are lodged and approved as required	Lead
	▶ Quantify water quality issues by monitoring the effect of stormwater discharges on receiving environments and remedy as appropriate	Research and Monitoring
	▶ Undertake contaminant loading studies, including those associated with roading stormwater systems	Lead/Research and Monitoring

What we are planning to do

All information from 2014 – 2022 includes an adjustment for inflation.
This is not a complete list of the projects/programmes we have planned for this group of activities. The full list is available on our website, www.westernbay.govt.nz

Project number	Project name	$'000									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
226332	Waihi Beach stormwater pump station renewals	75	78	81	56	58	52	68	59	60	28
226341	Stormwater upgrades Wallnutt Avenue	-	-	-	334	-	-	-	1,160	603	-
226602	Te Puke area 3 structure plan phase 1	-	-	645	1,298	-	-	-	-	-	-
332635	Hall Road, Paengaroa Stormwater upgrades					195	282		966		244
319601	Stormwater network upgrade	200	208	274	167	405	276	395	-	-	-
331501	Otawhiwhi Marae stormwater drain	-	-	-	446	-	-	-	-	-	-
331601	Ohineangaanga upper catchment	-	-	-	-	405	-	-	-	-	-
319401	Te Puke Retirement Village bund protection	30	-	-	557	-	-	-	-	-	-
317201	Omokoroa Structure Plan	-	-	-	-	-	96	-	-	-	-
302005	Stormwater treatment investigation	-	-	-	-	-	-	-	419	-	-
316901	Waihi Beach Structure Plan	-	-	-	-	-	150	-	1,178	-	-

How our plans have changed

The timing and costs of some of our projects have been updated since we adopted our 2009 - 2019 Long Term Council Community Plan (LTCCP). The differences are shown below. This is not a complete list of the projects/programmes that have been revised.

Project number	Project name		$						
			2013	2014	2015	2016	2017	2018	2019
319401	**Te Puke Retirement Village bund protection**	**Previous Plan**	-	-	-	-	-	-	-
	Project deferred from 2012 to 2016	**This Plan**	30,000	-	-	557,392	-	-	-
		Difference	**30,000**	**-**	**-**	**557,392**	**-**	**-**	**-**

Major projects planned for 2012 - 2022

District-wide

- $1,916,614 from 2013 to 2019 has been budgeted to assist with the application of a District-wide resource consent (including construction of stormwater treatment devices).

- $418,710 has been budgeted in 2020 for investigation into stormwater treatment options. This will identify options for treating stormwater before discharge, especially where it enters the Tauranga Harbour, including removal of debris and silt.

Katikati

- Over the ten year period to 2022, $371,221 will be spent on stormwater works identified in the Katikati Structure Plan.

Omokoroa

- Stormwater works identified in the Omokoroa Structure Plan Stage 2, which caters for growth, have been largely postponed beyond this ten year plan. This is a result of the slowing of growth assumed in our new forecasts.

Te Puke

- Construction of a protection bund wall to existing properties in the flood-prone area around Village Heights Retirement Village. $30,000 in 2013 for investigation works and $557,392 in 2016 for construction.

- $405,280 is set aside for stormwater catchment investigations of the Ohineangaanga upper catchment in 2015.

- To provide for expected growth in Te Puke, $1,942,788 is provided during 2015-16 for stormwater works identified in Phase 1 of the Te Puke Structure Plan.

The remaining structure plan works for Te Puke have been postponed beyond this ten year plan due to the slowing of growth.

Small settlements

- The ongoing work of renewals and upgrades of stormwater infrastructure to meet minimum levels of service standards will continue. For small settlements a programme of works totalling $3,205,593 over the next ten years includes $1,837,114 for upgrades at Hall Road and Paengaroa in 2015/2016, 2020 and 2022 to address flood risks.

Waihi Beach

- Upgrades to address flood risks in the Wallnutt Avenue area which includes: Wallnutt Avenue, Marine Avenue, Scarborough Road and Brighton Avenue costing $1,762,810 have been postponed to 2019/21. An additional $334,435 is proposed for 2015/16 to alleviate some of the flooding issues in this area.

  Waihi Beach Structure Plan works have been deferred due to a review of our growth assumptions showing slower growth in the short term.

All information from 2014-2022 includes an adjustment for inflation.

How we will track progress towards our goals

Stormwater networks are designed and managed to meet community and environmental needs

Goal	We'll know we're meeting our goal if	Actual	Target				
		2011	2013	2014	2015	2016 - 18	2019 - 22
Stormwater systems in urban growth nodes are progressively upgraded to comply with adopted structure plans Existing stormwater systems in small settlements are progressively upgraded to provide a minimum level of service	Percentage completion of the annual work programme as identified in our Stormwater Strategy and Action Plan. This identifies the total annual actions required for this strategy ***Please note:*** *the annual capital works programme includes projects in structure plan areas. While development in these areas is delayed by developers due to the financial climate the structure plan component of the programme will not be achieved. This accounts for the low actual figure for 2011*	**44%**	90%	90%	90%	90%	90%
Urban development is avoided in flood-prone areas unless mitigation measures can be provided Communities are consulted and informed about various approaches to stormwater Compliance and monitoring activities are carried out	Resident satisfaction level with stormwater systems, as monitored by the Annual Residents' Survey; percentage of residents who are 'very satisfied' and 'satisfied'	**67%**	70%	70%	70%	70%	70%

How we will track progress - levels of service

What we provide	We'll know we're meeting the service if	Actual	Target				
		2011	2013	2014	2015	2016 - 18	2019 - 22
Progressively upgrade infrastructure to manage flood levels within designated areas	Percentage of reticulation (by length) that is under-size as shown by stormwater modelling based on current rainfall data ***Please note:*** *The Bay of Plenty Regional Council has recently adjusted stormwater calculations. This has resulted in a higher proportion of our network being under-size. Our action plans are addressing this issue and trends will improve in later years of this Plan.*	**26%**	35%	25%	25%	15%	10%
Maintain existing stormwater systems to contain flooding within designated areas	Number of times flooding occurs outside identified flood-prone urban areas during a one-in-50 year or less storm event ***Please note:*** *a one-in-50 year storm event is a nationally recognised measure and used in our Code of Practice* *2011 saw some extreme rainfall events that produced flooding in rural areas where the extent of the stormwater network is limited	**7***	2	2	2	2	2

Key assumptions

Assumption	Description	Risk
Land coverage imperviousness	Estimates of land coverage imperviousness are made based on the recommendations in the New Zealand Building Code Handbook	Variations to predicted stormwater flows would result in a change to capacity requirements
Rainfall intensity values	Rainfall intensity values are generated from actual rainfall data. Factors have been applied to account for climate change up to the year 2030 as directed by the Bay of Plenty Regional Council. These factors are based on the Ministry for the Environment Climate Change recommendations	Variations to estimated stormwater flows may change the stormwater system requirements, which may affect the type of work undertaken and funding requirements as a result
Sea level changes	The sea level values used in relation to stormwater assets are based on the best estimate up to the year 2100, making allowances for high tide and storm surge as per the requirements of the Bay of Plenty Regional Council. The requirements are outlined in the Hydrological and Hydraulic Guidelines	If sea levels vary from those estimated changes in system and funding requirements may occur as a result
Stormwater asset cost estimates	Asset valuations have been calculated using data obtained from the Rawlinsons Publication. This publication contains average rates from contractors throughout New Zealand	If asset valuations vary from those calculated changes in funding requirements will occur as a result
Stormwater asset economic life	The estimates of economic life of stormwater assets are based on recommendations in the International Infrastructure Management Manual	If the estimated economic life of assets is inaccurate estimates of renewal expenditure will be inaccurate and funding requirements may change as a result
Lump sum payments	When new infrastructure is developed for funding by a specific group of ratepayers, we offer ratepayers the option of paying for their share of the capital cost through lump-sum payments rather than through their rates (uniform annual charges or UACs)	If we overestimate the extent of uptake of the lump-sum offer the timing of income will be affected. A greater portion of the capital cost would therefore be financed through loans and repaid through annual payments of rates (Uniform Annual Charges or UACs). As a result our debt levels would be higher than assumed

Significant effects of providing this activity

Well-being	Positive	Negative	How we are addressing these effects
Social	☺ The stormwater network reduces the risk of damage from flooding to individual properties ☺ The stormwater network provides a safer living environment for the whole community	☹ Disruption during the implementation of works ☹ Individuals can affect the stormwater network and neighbouring properties by altering natural flowpaths ☹ Flooding can affect public health and safety ☹ Stormwater can cause public health issues through the bacterial contamination of beaches	➲ Continue to advise landowners of potentially flood-prone areas ➲ Monitor new developments to ensure natural flowpaths are maintained
Environmental	☺ The stormwater network can reduce the amount of sediment reaching sensitive receiving environments, such as wetlands, estuaries and harbours, after high rainfall events ☺ The stormwater network can help prevent other contaminants from reaching sensitive receiving environments ☺ Changes and improvements in stormwater management will result in better protection and possible enhancement of selected streams	☹ Stream degradation through erosion by inadequately controlled discharges ☹ Barriers for fish, contamination from sediment and pollutants ☹ Beach erosion from stormwater outlets ☹ Transfer of contaminants such as silt, nutrients, toxic substances and bacteria between areas and damage to the marine environment	➲ Continue to monitor discharges to comply with the consent conditions set by the Bay of Plenty Regional Council
Economic	☺ The stormwater network reduces the potential for damage and erosion to property, essential utilities and transport infrastructure ☺ Efficiencies are available through integrating stormwater activities with others such as land use, transportation and industrial development	☹ The cost of maintaining the stormwater network to ensure it is free from blockages before high rainfall events ☹ Existing stormwater issues include costs associated with damage related to flooding, stream erosion and personal safety	➲ Continue to promote value for money by integrating stormwater upgrades with other projects
Cultural	☺ The stormwater network can help in protecting sites of cultural and historical significance from erosion and flooding ☺ Acknowledges the significance of the receiving waters and the need to improve the mauri of water bodies, which improves health and well-being	☹ Contamination of the receiving environment is unacceptable to tangata whenua	➲ Continuing to better identify sites of cultural significance ➲ Continue to monitor discharges to comply with the consent conditions set by the Bay of Plenty Regional Council

Summary financial forecast

Stormwater All information from 2014-2022 includes an adjustment for inflation

For the years ended 30 June	Actual $'000 2011	Budget $'000 2012	Forecast $'000 2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Analysis of expenditure by activity												
Stormwater	3,461	3,826	3,549	3,679	3,823	4,085	4,357	4,543	4,682	5,275	5,114	5,420
Waihi Beach coastal protection	6	458	262	264	264	265	266	267	268	269	271	272
Total operating expenditure	**3,467**	**4,284**	**3,811**	**3,943**	**4,087**	**4,350**	**4,623**	**4,810**	**4,950**	**5,544**	**5,386**	**5,692**
Analysis of expenditure by class												
Direct costs	523	533	536	525	548	574	601	628	656	1,106	722	764
Overhead costs	598	628	586	603	620	623	639	668	673	691	718	726
Interest	1,396	1,742	1,620	1,736	1,830	2,055	2,274	2,396	2,493	2,608	2,797	2,828
Depreciation	950	1,381	1,069	1,079	1,089	1,098	1,108	1,118	1,128	1,138	1,149	1,374
Total operating expenditure	**3,467**	**4,284**	**3,811**	**3,943**	**4,087**	**4,350**	**4,623**	**4,810**	**4,950**	**5,544**	**5,386**	**5,692**
Revenue												
Targeted rates	2,142	2,203	2,427	2,672	2,853	3,130	3,327	3,610	3,918	4,307	4,718	5,266
Financial contributions	147	257	563	658	671	701	1,306	1,357	1,449	1,870	1,940	2,026
Vested assets	-	300	300	312	323	334	347	360	372	387	402	419
Interest	-	-	9	10	12	12	8	4	4	5	6	8
Other income	2	-	-	-	-	-	-	-	-	-	-	-
Total revenue	**2,290**	**2,761**	**3,298**	**3,651**	**3,859**	**4,178**	**4,989**	**5,330**	**5,743**	**6,570**	**7,066**	**7,719**
Net cost of service – surplus/(deficit)	**(1,176)**	**(1,524)**	**(512)**	**(291)**	**(228)**	**(172)**	**366**	**520**	**793**	**1,026**	**1,680**	**2,027**
Capital expenditure	**2,398**	**1,033**	**875**	**518**	**1,922**	**4,105**	**1,978**	**2,673**	**924**	**5,044**	**1,039**	**649**
Vested assets	**-**	**300**	**300**	**312**	**323**	**334**	**347**	**360**	**372**	**387**	**402**	**419**
Total other funding required	**(3,575)**	**(2,857)**	**(1,687)**	**(1,121)**	**(2,473)**	**(4,611)**	**(1,960)**	**(2,513)**	**(503)**	**(4,405)**	**239**	**959**
Other funding provided by												
General rate	18	21	22	24	26	29	31	34	37	41	45	49
Debt increase/(decrease)	1,351	610	66	(128)	584	1,961	358	1,185	(221)	2,273	(828)	(698)
Reserves and future surpluses	2,205	2,226	1,599	1,225	1,863	2,621	1,571	1,294	687	2,091	543	(310)
Total other funding	**3,575**	**2,857**	**1,687**	**1,121**	**2,473**	**4,611**	**1,960**	**2,513**	**503**	**4,405**	**(239)**	**(959)**

Council's additional asset requirements - Stormwater

All information from 2014 - 2022 includes an adjustment for inflation.

	$'000									
Capital expenditure	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
To meet additional demand (capacity for future residents - growth)	-	-	756	1,298	-	507	-	1,178	-	-
To improve the level of service	736	440	1,085	2,696	1,920	2,114	855	3,807	979	244
To replace existing assets (renewals)	139	78	81	111	58	52	69	59	60	405
Total capital expenditure	**875**	**518**	**1,922**	**4,105**	**1,978**	**2,673**	**924**	**5,044**	**1,039**	**649**

What we're doing to improve the levels of service

This is not a complete list of the projects/programmes we have planned for this group of activities. The full list is available on our website www.westernbay.govt.nz

- **319601– District stormwater network upgrade**
  To ensure compliance with resource consents

- **331501– Waihi Beach-Otawhiwhi Marae stormwater drain**
  The area is unsuitable for ground soakage

⇨ Within the Western Bay of Plenty District the stormwater system (not including roading related assets) is made up of:

- 120 km of pipes (including 1.2 km of rising mains)
- 32 km of open drains
- 7 pumping stations (in Waihi Beach only)
- 27 rodding eyes, 12 soak holes, 560 catchpits, 75 boxes
- 1 dam and 19 ponds

Where the money comes from

Stormwater

Who benefits from this activity

Individual property owners benefit from the stormwater activity through the reduction in risk of damage due to flooding and/or erosion on their properties. Properties and assets that benefit from the existence of stormwater assets can be identified. We cannot exclude individual properties from receiving the benefits of a stormwater system even if they refuse to pay for it.

Developers also benefit from the existence of excess capacity in the stormwater system. In some cases stormwater assets and levels of service have to be increased to enable development to proceed.

Even though stormwater systems and treatment protect individual properties they also reduce the negative impact of stormwater on sensitive receiving environments such as wetlands, estuaries and harbours which is a District-wide benefit.

Funding sources

Capital development of the stormwater system is paid for by loans and financial contributions (subdivision fees). Financial contributions fund that part of the system that is required to service growth. Loans are serviced through the revenue which comes from ratepayers user charges in the areas of the District that benefit from having a reticulated stormwater system. These areas are Katikati, Kauri Point, Maketu/Little Waihi, Minden, Omokoroa, Paengaroa, Pukehina, Tanners Point, Te Puke, Te Puna and Waihi Beach.

General rates may be used to service interest payments and growth-related debt in times of low growth. We propose to do this 2013-2016.

Additional asset requirements

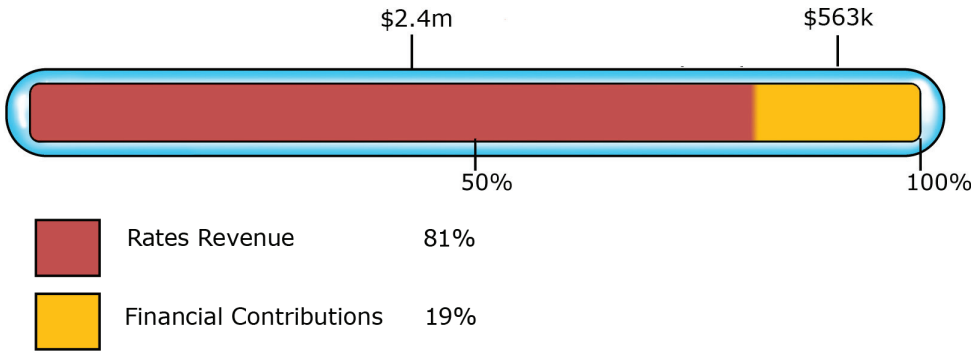
Funding sources

Growth-related projects (capacity for future residents) will be recovered through financial contributions over a 25 year period and from future rates.

Additional levels of service are funded by targeted rates.

Renewals are funded through depreciation reserves and targeted rates.

Funding sources - Stormwater 2012/13



Where the money comes from

Waihi Beach coastal protection

Who benefits from this activity

This policy does not include coastal erosion works in other locations intended for the purpose of protecting our esplanade reserves, strategic harbour walkways or public access ways. These structures are included in the District Reserves Activity

This project provides and maintains works to mitigate the risks from coastal erosion and stormwater to private properties specifically in the following Waihi Beach catchment areas:

- 412 metres of dune enhancement along the shoreline at the northern end of Shaw Road
- 1,047 metres of rock revetment along the shoreline at Shaw Road, Ayr Street and The Loop and 1.2 metre wide access ways
- Three Mile Creek works – 146 metres of dune enhancement (shoreline off Glen Isla Place) and creek training at Three Mile Creek using training groynes
- Maintenance and monitoring during the life of the works

We can identify individual properties that receive benefits from the reduced risk of property damage from coastal erosion and can be charged for the service. Conversely, if protection works were not undertaken other costs may be imposed on the wider community, for example litigation costs in the event of property loss or the need for other solutions to erosion problems.

Funding sources

Loans will be used to finance capital expenditure, excluding renewals, over a 25 year period.

These loans will be serviced from the following revenue sources:

General rate reserves
To finance up to 5% of the capital cost of the project.

Balance of Waihi Beach Drainage Reserve and Waihi Beach Erosion Reserve
Lump sums transferred to finance the capital cost of the project.

Rates collected for coastal protection works (2003/04)
Lump sum transferred to finance the capital cost of the project.

Uniform Annual General Charge (UAGC)
To fund the revenue required for capital and all operating, maintenance and finance costs of the Three Mile Creek training groynes.

Area of Benefit targeted rates - Uniform Annual Charge for the Waihi Beach Ward
To fund 25% of the remaining revenue requirement for capital and all operating, maintenance and financing cost of the rock revetment works. To fund 30% of the remaining revenue requirement for capital and all operating, maintenance and financing cost of the coastal protection works for the dune enhancement work (northern end and off Glen Isla Place).

Area of Benefit targeted rates - Uniform Annual Charge for 83 beachfront properties directly benefitting from the works

or

- **Lump-sum Contributions equivalent to loan and interest portion of revenue requirement over 25 years; and**
- **Area of Benefit targeted rates to meet the revenue required for maintenance and operations for those properties that elect to take up the lump-sum payment option**

To fund 75% of the remaining revenue requirement for capital and all operating, maintenance and financing costs of the rock revetment (53 properties).

To fund 70% of the remaining revenue requirement for capital and all operating, maintenance and financing costs of the coastal protection works for the dune enhancement, northern end (23 properties) and off Glen Isla Place (7 properties).

Council will be reviewing this revenue and financing policy in the 2013 year.