

# WATER SUPPLY

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# WATER SUPPLY

## OVERVIEW

We supply potable (drinking) water to approximately 37,000 people in our District through the water infrastructure operating in the Western, Central and Eastern supply zones. We have a varied customer base including residential, commercial, horticultural and agricultural users.

Water treatment, storage and distribution are provided in each of the supply zones. Through the operation and maintenance of the treatment plants, pumping stations, reservoirs and the reticulation network, water is delivered to our community through 14,000 connections.

Water is sourced from nine secure bore fields across our District and one isolated surface supply in Te Puke. The change from surface supplies, which are prone to contamination, to secure groundwater supplies has enabled us to increase production capacities to meet growing demand. It has also improved the reliability of supply, particularly during adverse conditions such as drought or floods. Our water sources now have significantly improved water quality with source/reticulation supplies grading of Bb or better, New Zealand Drinking Water Standards 2005 (amended 2008).

We have completed the transition to secure groundwater sources and we are now able to place greater emphasis on water conservation. There are several drivers including environmental sustainability, statutory frameworks and policies, legislative responsibilities and compliance requirements that make water conservation necessary. Reducing water demand has many advantages as it lengthens the life of existing treatment, storage and reticulation infrastructure and means we can defer some capital expenditure. Water conservation also provides additional environmental benefits to the community by reducing the volumes of wastewater and protecting the water resource itself.

Studies undertaken by the Bay of Plenty Regional Council have highlighted the need to carefully manage future demand for water, especially in the eastern area of our District where forecast and existing demand may exceed the volume available for allocation. The allocation of water outside our reticulation system is the role of the Regional Council. Both councils see water conservation as an important part of ensuring the social, cultural, economic and environmental well-being of our communities and we will assist and educate water consumers about this.

We started rolling out District-wide water metering for all our customers in 2012/13. The Central supply area (including Omokoroa) has been completed, the Eastern supply area is underway and we aim to have all water connections metered by 2017/2018. District-wide metering can assist customers in managing their usage in response to conservation initiatives and costs. Meters enable us to identify high volume users and system leaks. This is important for predicting future demand and to measure losses from the network. Water metering for all customers is an important part of our water supply

strategy and will allow for the installation of backflow protection devices to all connections for the protection of customers in the event of a loss of pressure in the main trunk water supply. It will also encourage conservative use of water as all customers will be paying for the water they use. Water conservation will help ensure that sufficient water is available for all current users and provide for future generations.

Supplying drinking water for the purpose of domestic, commercial, industrial and livestock use is a high priority within our water management strategy. In drought or emergency situations we may require certain customer groups to reduce their usage to ensure adequate domestic supplies are available.

Customers with non-standard connections (larger than 20mm) pay increased charges to reflect the greater demand such connections place on the network. These customers are mainly non-residential and may choose to reduce the additional charge by downsizing their connections. We will continue to work with this customer group to find the most practicable solutions to meet their water demands.

Currently our District water supply is rated based on three supply zones. In the 2014/15 Annual Plan we proposed to amalgamate the charges across the 3 water supply zones in 2016/17. This is running in parallel with the staged approach taken to the introduction of a uniform district-wide wastewater charging regime that began in 2014/15. In 2016/17 water supply charges will reduce for the Eastern Supply area, remain approximately the same for the Central supply area and increase for the Western Supply area and this will offset the movements in the charges for wastewater in these areas.

In addition we have recently introduced a policy on extensions to the rural water supply network that limits Council's exposure to requests for rural extensions to only a small number of specific locations.

There are no significant variations between the assessment of water services and this Water Supply Strategy.

## WHAT WE PROVIDE



Water reticulation operated in three supply zones:

- **WESTERN**  
• Waihi Beach, Katikati
- **CENTRAL**  
• Omokoroa, Te Puna
- **EASTERN**  
• Te Puke, Maketu, Pukehina Beach, Paengaroa

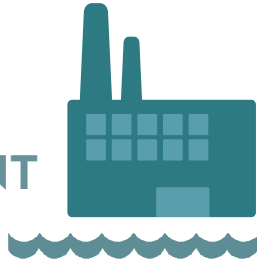


**DISTRICT-WIDE WATER METERING completed 2018**

**24** BOOSTER PUMP STATIONS

**9** BORE FIELDS

**10** WATER TREATMENT PLANTS



**1** SURFACE SUPPLY  
(Bush Dam)



**24** RESERVOIRS & TANK SITES

APPROXIMATELY

**660** KILOMETRES  
of water mains



**14,600** out of **15,600**

water main fronting properties are connected to Council's water supply

## WHY WE PROVIDE IT

### OUR COMMUNITY OUTCOME

Water supply is provided to our Community in a sustainable manner.

### OUR GOALS

- Provide potable water of an appropriate standard and quality to meet the needs of consumers within the three supply zones.
- Sustainably manage our water resource, water supply infrastructure and consumer use of water across the three supply zones.

## HOW WE WILL ACHIEVE OUR COMMUNITY OUTCOME

GOAL	OUR APPROACH	OUR ROLE
Provide potable water of an appropriate standard and quality to meet the needs of consumers within the three supply zones.	• Maintain water treatment plants at a minimum of grade 'B' compliance with New Zealand Drinking Water Standards 2005 (amended 2008). Maintain piped water supplies at a minimum of grade 'b' compliance with New Zealand Drinking Standards 2005 (amended 2008).	Lead
	• Maintain adequate storage and supply to meet the needs of normal domestic, commercial and industrial water use for the Western, Central and Eastern Supply zones in the event of a one-in-50 year drought.	Lead
	• Maintain water storage systems to ensure a minimum of 24 hours average daily demand storage in all systems.	Lead
	• The reticulated network is only extended when consistent with our policy on network extensions and water connections.	Lead
	• When considering applications for new connections give priority to households, livestock (including dairy farms) and commercial and industrial uses (where land is zoned for these purposes) rather than for general agricultural irrigation.	Lead
Sustainably manage our water resource, water supply infrastructure and consumer use of water across the three supply zones.	• Water meters are phased-in and used to charge according to volume for all consumers.	Lead
	• Appropriate funding mechanisms are used to encourage equitable and sustainable use of water.	Lead
	• Enable cross-boundary supply with Tauranga City subject to suitable agreements being in place.	Lead/Partner

## WHAT WE ARE PLANNING TO DO

All information from 2017 – 2025 includes an adjustment for inflation.

PROJECT NUMBER	PROJECT NAME	\$'000									
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
243619	Western Water Reticulation Renewals	1,191	883	724	583	510	622	278	629	188	212
243622	Katikati Structure Plan - Water	-	-	-	-	-	-	-	154	236	336
243623	Waihi Beach Structure Plan - Water	-	-	-	-	289	-	-	-	-	-
243624	Western Supply Zone Bulk Flow Meters	80	83	-	88	-	94	-	-	-	-
243636	Western Supply Zone - Water demand management	-	57	59	28	-	-	-	-	33	-
287201	Western Supply Zone Additional bore at existing borefield Katikati	-	-	-	-	-	295	1,346	-	-	-
287203	Additional Reservoir Capacity Project	-	-	-	-	-	-	-	-	475	2,477
310601	Asset Validation - Western Water	20	21	11	11	23	12	12	-	-	-
318201	District Wide Water metering Project - Western Supply Zone	-	934	1,338	-	-	-	-	-	-	-
336901	Western Supply Zone- Wharawhara Road WTP Generator	-	68	-	-	-	-	-	-	-	-
337201	Western Supply Zone Water Modelling Calibration	15	21	-	22	-	6	-	25	-	7
340601	Central Supply Zone Water Modelling Calibration	15	10	11	22	-	6	-	25	-	7
340801	Western Supply Zone Reservoirs, Pumps and Controls renewals	102	80	57	121	15	-	-	-	-	39
243210	Omokoroa Stage 2 Water Reticulation	-	149	-	-	-	-	-	-	-	-

PROJECT NUMBER	PROJECT NAME	\$'000									
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
243307	Central Water Supply Expansion Upgrade	-	-	-	-	-	-	-	1,677	-	-
243310	Central Water Reticulation Improvements	775	680	948	336	404	352	377	178	255	143
243320	Central Supply Zone - Construct New Reservoir incl Tanks, Major Upgrades and Trunk Mains	150	311	1,283	-	-	-	-	-	-	-
243333	Central Water Demand Management	96	134	112	171	57	153	61	64	119	69
243335	Central Supply Zone Construct Additional Reservoir	-	-	-	-	-	-	-	-	-	2,477
243336	Central Water Western Avenue Pipe Extension	38	-	-	-	-	-	-	-	-	-
310701	Asset Validation - Central Water	20	21	11	11	11	12	12	13	13	14
337101	Youngson Road Generator & Shed	-	-	-	-	75	-	-	-	-	-
243002	Eastern Water Reticulation Improvements	1,382	1,025	842	788	838	575	447	495	273	388
243027	Eastern Water Showground Road Water Supply	85	-	-	-	-	-	-	-	-	-
287112	Pongakawa Water Treatment Plant Enhancement - Stage 2	800	-	-	-	-	-	-	-	-	-
287113	Eastern Supply Zone Bulk Flow Meters	50	-	53	-	-	-	-	-	-	-
287117	Eastern Water Demand Management	25	57	-	-	-	-	-	-	-	-
287118	Te Duke Infrastructure Areas 3 + 4	-	-	-	-	98	-	-	-	-	-
310801	Asset Validation - Eastern Water	20	21	11	11	11	12	12	13	13	14
323801	District Wide Water metering - Eastern Supply Zone	862	-	-	-	-	-	-	-	-	-
340701	Eastern Supply Zone Water Modelling Calibration	15	10	11	22	-	6	-	25	-	7

## HOW OUR PLANS HAVE CHANGED

The timing and costs of some of our projects have been updated since we adopted our 2012 - 2022 Long Term Plan (LTP).

To see how our plans have changed click [here](#) for the complete list of the projects/programmes that have been revised or alternatively visit our website [www.westernbay.govt.nz](http://www.westernbay.govt.nz).

## MAJOR PROJECTS PLANNED FOR 2015 - 2025

### DISTRICT WIDE

District-wide metering of all water connections to be completed by 2018.

- Eastern Supply Zone metering, \$742,000 in 2016.
- Western Supply Zone metering, \$2,152,000 during 2016/17 and 2017/18.

District-wide network reticulation improvements, upgrades and renewals 2016-2025, \$15,565,610

All information from 2017 - 2025 includes an adjustment for inflation.

## HOW WE WILL TRACK PROGRESS TOWARDS OUR GOALS

### OUTCOME

Water supply is provided to our Community in a sustainable manner

The Local Government Act 2002 Amendment Act 2010 addressed the need for standard performance measures for local authorities. In line with legislation the Secretary for Local Government has developed performance measures for the identified activities, which includes drinking water. These mandatory measures have been integrated into Council's performance framework and are shown in italics.

GOAL	WE'LL KNOW WE'RE MEETING OUR GOAL IF	ACTUAL	TARGET				
		2014	2016	2017	2018	2019 - 21	2022 - 25
<p>Provide potable water of an appropriate standard and quality to meet the needs of consumers within the three supply zones.</p> <p>Sustainably manage our water resource, water supply infrastructure and consumer use of water across the three supply zones.</p>	For the three supply zones the percentage of Council's treated water supply with a Ministry of Health grading as per the New Zealand Drinking Water Standards 2005 (amended 2008).						
	B or better for treatment	<b>100%</b>	100%	100%	100%	100%	100%
	b or better for reticulation	<b>100%</b>	100%	100%	100%	100%	100%
	Level of resident satisfaction with the quality of Council's water supply as monitored by the Annual Residents' Survey, percentage of residents who are 'very satisfied' and 'satisfied'.	<b>77%</b>	79%	79%	80%	83%	85%
	In a one-in-50-year drought event the ability to supply water to meet the normal daily water demand (1,100 litres per person per day).	<b>100%</b>	100%	100%	100%	100%	100%
Ability of reservoirs to provide a minimum of 24 hour average daily demand.	<b>100%</b>	100%	100%	100%	100%	100%	



## HOW WE WILL TRACK PROGRESS - LEVELS OF SERVICE

WHAT WE PROVIDE	WE'LL KNOW WE'RE MEETING THE SERVICE IF	ACTUAL	TARGET				
		2014	2016	2017	2018	2019 - 21	2022 - 25
We will provide good quality water to service growth within the three supply zones.	Percentage of year where reservoirs are maintained at a minimum of 50% full, in accordance with Ministry of Health requirements.	99%	100%	100%	100%	100%	100%
We will monitor sustainable delivery and effectively manage the risks associated with the quality and quantity of the public water supply.	<p><i>The extent to which Council's drinking water supply complies with:</i></p> <ul style="list-style-type: none"> <li>• <i>Part 4 of the drinking-water standards (bacterial compliance criteria), and</i></li> <li>• <i>Part 5 of the drinking-water standards (protozoal compliance criteria).</i></li> </ul>	NEW	≥99%	≥99%	≥99%	≥99%	≥99%
	<p><i>The percentage of real water loss from Council's networked reticulation system.</i></p> <p><i>(this will be monitored through the water metering for the central supply area. Until water metering is completed in the eastern and western supply areas water loss will be based on a pre-defined calculation.)</i></p>	NEW	≤25%	≤25%	≤25%	≤22%	≤15%
	<p><i>The average consumption of drinking water per day per resident.</i></p>	NEW	≤270 litres	≤270 litres	≤250 litres	≤220 litres	≤200 litres
Respond to customer issues with the water supply.	<p><i>The median response time for Council to respond to a fault or unplanned interruption to the networked reticulation system.</i></p> <p><i>Attendance for call-outs: from the time notification is received to the time service personnel reach the site</i></p>						
	<ul style="list-style-type: none"> <li>• <i>Urgent call outs</i></li> </ul>	NEW	≤2 hours	≤2 hours	≤2 hours	≤2 hours	≤2 hours
	<ul style="list-style-type: none"> <li>• <i>Non urgent call outs</i></li> </ul>	NEW	≤8 hours	≤8 hours	≤8 hours	≤8 hours	≤8 hours

WHAT WE PROVIDE	WE'LL KNOW WE'RE MEETING THE SERVICE IF	ACTUAL	TARGET				
		2014	2016	2017	2018	2019 - 21	2022 - 25
Respond to customers issue with the water supply (cont.)	<i>Resolution of call-outs: from the time notification is received to the time service personnel confirm resolution of the fault or interruption.</i>						
	<ul style="list-style-type: none"> <li>• Urgent call outs</li> <li>• Non urgent call outs</li> </ul>	NEW	≤8 hours	≤8 hours	≤8 hours	≤8 hours	≤8 hours
		NEW	≤24 hours	≤24 hours	≤24 hours	≤24 hours	≤24 hours
	<i>Total number of complaints received by Council about drinking water:</i> <ul style="list-style-type: none"> <li>• clarity</li> <li>• taste</li> <li>• odour</li> <li>• pressure or flow</li> <li>• continuity of supply and</li> </ul> <i>Council's response to any of these issues expressed per 1000 connections to the networked reticulation system.</i>	NEW	≤40	≤40	≤40	≤40	≤40

## KEY ASSUMPTIONS

ASSUMPTION	DESCRIPTION	RISK
Eastern Supply Zone	No provision is made in our Asset Management Plan (AMP) for infrastructure to reticulate and supply future development at Rangiuru as it has not been given approval to proceed.	Minor because the AMP can be updated if and when the industrial park is given approval to proceed and water is available.
Drinking water standard	The standard for drinking water as specified in Drinking Water Standards for New Zealand 2005 (revised 2008) remains unchanged for compliance with the Health (Drinking Water) Amendment Act 2007.	Quality of water supplied differs from supply standards.
Industrial water demand	Industrial demand is based on the continual growth of existing demand profiles in commercial, industrial and agricultural sectors. Trends have been identified and analysis undertaken as per the Water Asset Management Plan.	If demand assumptions are incorrect investment in water assets may not be optimal, however, much of the work can be modified according to actual growth.

ASSUMPTION	DESCRIPTION	RISK
Residential water demand	<p>Growth in water demand is based on forecast population growth and household numbers and from historical trends in individual household consumption. Trends have been identified and analysis undertaken per the Water Asset Management Plan. Expect residential water metering to reduce growth in demand.</p> <p>Risks exist where consumers are not currently connected to the water supply network but it is available for them. If there are large numbers of these new consumers in any one location connecting to the water supply upgrades to the capacity of the supply network may need to be brought forward.</p>	If demand assumptions are incorrect investment in water assets may not be optimal, however, much of the work can be modified according to actual growth.
Water asset renewals	<p>The assessed condition of the assets will not deteriorate with the provision of further field data. Asset replacement is scheduled based on accepted national standards and international best practice approaches to 'whole of life' asset management.</p> <p>Water reticulation, source headworks and storage assets will be renewed "just in time" throughout the 10 year period according to their determined life-expectancies and performance.</p>	<p>Assets that have accelerated deterioration rates are not appropriately funded.</p> <p>Delaying the renewal work by "sweating the asset" unreasonably would increase maintenance expenditure and progressively increase the risk of reduced LoS in the reticulated area.</p>
Water asset replacement	All pipe replacement is with either Polyvinyl chloride (PVC) or Polyethanol (PE) plastic pipes. This is in line with current levels of service and budgets.	Increased construction and ratepayer costs if alternative pipe materials are used, for example ductile iron.
Water losses	Management of reticulation systems and water-metering will reduce water losses from 28% to 10% over 10 years. Observation and analysis of the three supply zone networks by staff suggest this reduction is achievable. The availability of water is not expected to be affected by climate change during the ten years of this Plan. Proposals adopted for water-metering used as a demand management tool and to encourage more efficient use of the resource will help address longer term risks.	If the target is not met investment in new water sources may need to be brought forward.
Water level of service	No provision is made for changes to the adopted levels of service, funding policy or by-laws.	Changes to levels of service will have cost implications for ratepayers.
Water sources	All future water supplies are from proven groundwater sources adjacent to existing infrastructure. Current consents allow for growth for the next 50 years and are all sites close to existing water treatment plants.	Considerable increased investment in reticulation would be required if new bore sources had to be located.
Impact of water-metering	<p>Metering households will reduce demand for water and delay the need for additional water sources.</p> <p>District-wide water metering will be installed progressively in the Western and Eastern Zones over the period 2015 - 2018. Bulk-flow metering and demand management activities will be introduced over the next 10 years and will be ongoing.</p>	<p>Increased investment in water sources and the reticulation network may be required if demand does not reduce as a result of metering.</p> <p>If demand is not reduced through these initiatives Council will not be able to defer the funding for significant capital and renewals projects</p>

## SIGNIFICANT EFFECTS OF PROVIDING THIS ACTIVITY

WELL-BEING	POSITIVE	NEGATIVE	HOW WE ARE ADDRESSING THESE EFFECTS
Social	<ul style="list-style-type: none"> <li>+ Provides for a safe and convenient drinking water supply for residential properties' everyday needs.</li> <li>+ Provides water for a range of recreation and leisure activities, e.g. swimming pools.</li> <li>+ Provides the operational basis for the sewerage network.</li> </ul>	<ul style="list-style-type: none"> <li>- Increasing the amount of water taken for public supply from groundwater bores means less groundwater is available for landowners wanting to develop private bores for irrigation.</li> </ul>	<ul style="list-style-type: none"> <li>• These effects are monitored and controlled by the Bay of Plenty Regional Council through resource consents required to extract and use water.</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>+ Treated water returned to the environment.</li> </ul>	<ul style="list-style-type: none"> <li>- Water extraction from rivers and streams has the potential for negative impacts on ecological values as habitats for native species of plants and animals.</li> </ul>	<ul style="list-style-type: none"> <li>• We are continuing to monitor and reduce water losses from the public supply system to reduce the amount of water we need to take.</li> </ul>
Economic	<ul style="list-style-type: none"> <li>+ Provides a reliable water supply for commercial and industrial users.</li> <li>+ Provides a reliable water supply for agriculture and horticulture.</li> </ul>	<ul style="list-style-type: none"> <li>- Some people may find it difficult to pay for the water they use and will have to reduce their use.</li> <li>- Businesses using large volumes of water may decide against locating in our District due to water costs.</li> </ul>	<ul style="list-style-type: none"> <li>• We are continuing to install water meters for all customers in our District.</li> <li>• We are making consumers aware of their water use by charging for water by volume used.</li> </ul>
Cultural	<ul style="list-style-type: none"> <li>+ Good quality water is available to residents which improves health and well-being.</li> </ul>	<ul style="list-style-type: none"> <li>- Water abstraction from streams and rivers can have an adverse effect on the mauri of the water body.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuing to better identify the cultural significance of water catchments through resource consent conditions.</li> </ul>

## SUMMARY FINANCIAL FORECAST

### DISTRICT WIDE WATER SUPPLY

All information from 2017-2025 includes an annual adjustment for inflation

FOR THE YEARS ENDED 30 JUNE	ACTUAL	BUDGET	FORECAST									
	\$'000	\$'000	\$'000									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Analysis of expenditure by activity</b>												
Western water supply	3,428	3,360	3,462	3,633	3,881	3,989	3,979	3,983	4,009	4,078	4,140	4,126
Central water supply	2,389	2,502	2,573	2,747	2,865	3,198	3,146	3,206	3,254	3,317	3,593	3,619
Eastern water supply	4,064	4,055	4,380	4,739	4,820	4,974	5,091	5,245	5,350	5,453	5,577	5,685
<b>Total operating expenditure</b>	<b>9,881</b>	<b>9,918</b>	<b>10,415</b>	<b>11,119</b>	<b>11,567</b>	<b>12,162</b>	<b>12,217</b>	<b>12,434</b>	<b>12,612</b>	<b>12,849</b>	<b>13,310</b>	<b>13,430</b>
<b>Analysis of expenditure by class</b>												
Direct costs	3,950	3,966	4,447	4,748	4,795	4,994	5,046	5,331	5,456	5,682	6,022	6,215
Overhead costs	1,463	1,567	1,446	1,485	1,541	1,559	1,590	1,653	1,684	1,727	1,806	1,837
Interest	1,683	1,654	1,594	1,763	1,954	2,155	2,094	1,938	1,910	1,810	1,751	1,611
Depreciation	2,766	2,731	2,929	3,122	3,277	3,455	3,487	3,512	3,563	3,630	3,731	3,767
Revaluation movement	19	-	-	-	-	-	-	-	-	-	-	-
<b>Total operating expenditure</b>	<b>9,881</b>	<b>9,918</b>	<b>10,415</b>	<b>11,119</b>	<b>11,567</b>	<b>12,162</b>	<b>12,217</b>	<b>12,434</b>	<b>12,612</b>	<b>12,849</b>	<b>13,310</b>	<b>13,430</b>
<b>Revenue</b>												
Targeted rates	6,052	6,301	6,258	5,967	5,925	6,137	6,465	6,653	6,924	7,094	7,265	7,405
User fees	2,738	2,695	3,080	3,387	3,858	4,357	4,517	4,683	4,855	4,953	5,043	5,127
Financial contributions	542	414	820	784	804	1,169	1,217	1,250	1,306	1,336	928	967
Vested assets	183	200	200	208	214	221	228	236	245	254	264	275
Other income	154	-	51	-	-	-	-	-	-	-	-	-
<b>Total revenue</b>	<b>9,670</b>	<b>9,610</b>	<b>10,410</b>	<b>10,346</b>	<b>10,801</b>	<b>11,884</b>	<b>12,427</b>	<b>12,822</b>	<b>13,330</b>	<b>13,637</b>	<b>13,500</b>	<b>13,774</b>
<b>Net cost of service - surplus/(deficit)</b>	<b>(211)</b>	<b>(307)</b>	<b>(6)</b>	<b>(774)</b>	<b>(766)</b>	<b>(277)</b>	<b>210</b>	<b>388</b>	<b>718</b>	<b>788</b>	<b>191</b>	<b>343</b>
<b>Capital expenditure</b>	<b>1,796</b>	<b>2,276</b>	<b>5,559</b>	<b>4,256</b>	<b>5,267</b>	<b>1,983</b>	<b>2,228</b>	<b>1,956</b>	<b>2,447</b>	<b>3,209</b>	<b>1,427</b>	<b>6,092</b>
<b>Vested assets</b>	<b>183</b>	<b>200</b>	<b>200</b>	<b>208</b>	<b>214</b>	<b>221</b>	<b>228</b>	<b>236</b>	<b>245</b>	<b>254</b>	<b>264</b>	<b>275</b>
<b>Total other funding required</b>	<b>(2,190)</b>	<b>(2,783)</b>	<b>(5,765)</b>	<b>(5,237)</b>	<b>(6,247)</b>	<b>(2,481)</b>	<b>(2,246)</b>	<b>(1,804)</b>	<b>(1,975)</b>	<b>(2,675)</b>	<b>(1,501)</b>	<b>(6,024)</b>
<b>Other funding provided by</b>												
Proceeds from sale of assets	116	-	-	-	-	-	-	-	-	-	-	-
Environmental protection rate	-	-	-	-	-	-	-	-	-	-	-	-
Debt increase/(decrease)	(351)	240	253	(542)	372	(972)	(645)	(986)	(636)	573	(657)	3,823
Reserves and future surpluses	2,425	2,543	5,512	5,780	5,875	3,453	2,891	2,790	2,611	2,102	2,157	2,201
<b>Total other funding</b>	<b>2,190</b>	<b>2,783</b>	<b>5,765</b>	<b>5,237</b>	<b>6,247</b>	<b>2,481</b>	<b>2,246</b>	<b>1,804</b>	<b>1,975</b>	<b>2,675</b>	<b>1,501</b>	<b>6,024</b>

## COUNCIL'S ADDITIONAL ASSET REQUIREMENTS

### DISTRICT-WIDE WATER SUPPLY

All information from 2017-2025 includes an annual adjustment for inflation

CAPITAL EXPENDITURE	\$'000									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
To meet additional demand (capacity for future residents - growth)	950	461	1,283	-	387	295	1,346	1,831	712	5,290
To improve the level of service	1,122	1,127	1,413	154	75	112	-	76	-	21
To replace existing assets (renewals)	3,487	2,668	2,571	1,828	1,766	1,549	1,102	1,302	715	782
<b>Total capital expenditure</b>	<b>5,559</b>	<b>4,256</b>	<b>5,267</b>	<b>1,983</b>	<b>2,228</b>	<b>1,956</b>	<b>2,447</b>	<b>3,209</b>	<b>1,427</b>	<b>6,092</b>

## 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](http://www.westernbay.govt.nz)

- **318201 - Western Supply Zone water metering project**

To provide water metering to encourage better water resource management and progress volumetric charging.

- **323801 - Eastern Supply Zone water metering project**

To provide water metering to encourage better water resource management and progress volumetric charging.

- **243624 - Western Supply Zone Bulk Flow Meters**

- **323801 - Eastern Supply Zone Bulk Flow Meters**

To enable better water resource management by confirming the volume of flow within the reticulated networks and verifying losses within the systems.

## WHERE THE MONEY COMES FROM

### WATER SUPPLY

#### COMMUNITY OUTCOME

Water supply is provided to our community in a sustainable manner.

#### GOAL

- Provide potable water of an appropriate standard and quality to meet the needs of consumers within the three supply zones.
- Sustainably manage our water resource, water supply infrastructure and consumer use of water across the three supply zones.

#### DISCUSSION / RATIONALE

We have a statutory responsibility as an administering body under the Local Government Act 2002 to manage our District's water supply for the benefit of the community. However, it should be noted that many rural ratepayers in our District are not connected to Council water supplies as they provide their own water.

Provision of potable water provides public health and sanitation benefits to the community. It enables commercial and industrial businesses to have access to clean water for their activities.

If potable water were unavailable economic development would be constrained and the community as a whole would suffer.

Water supply schemes provide fire-fighting capability to the community.

Individuals provided with water can be identified and charged for the service. Increased use of water by some customers reduces the amount available for others. We are progressively implementing water metering across the District which will help extend the life of existing water supply schemes, help identify water losses through leaks and ensure that those individuals who use more water pay their fair share.

Water supply, treatment facilities and reticulation systems have surplus capacity designed to cater for growth. Developers who take advantage of this capacity by subdividing properties can be identified and charged.

The life of assets ranges from 40 to 100 years and are designed to cater for growth.

Actions identified that result in increased expenditure on this activity include:

- Undetected leaks resulting in water losses
- Illegal connections contributing to water losses
- Poor maintenance of pipes and taps leading to water losses
- Customers with large connections and a rapid delivery rate (>20mm) affect the level of service that can be offered elsewhere, especially in peak demand times.

#### FUNDING APPROACH

##### Capital expenditure

Initially financed by loans to match the life of the asset which are serviced from:

- Financial contributions, for expenditure to accommodate growth and/or to pay for the consumption of excess capacity in the water supply system. Includes the related loan servicing (holding) costs
- User fees and charges for capital expenditure to service existing ratepayer.

##### Operational, maintenance and renewals expenditure including financing costs that relate to existing ratepayers

User fees and charges including:

- Metered uniform annual charges and charges for actual water consumed via metering
- Unmetered water uniform annual charges
- Connection fees including additional fees for large connections >20mm
- Availability charges - to those properties able to connect but not connected

General Rates may be used to service interest payments and growth related debt in times of low growth.

## Funding sources - water supply 2015/2016

