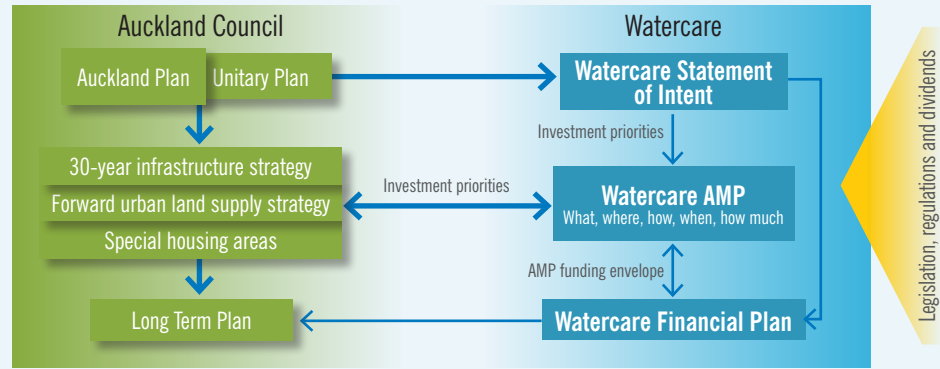


Our Asset Management Plan

Every year we update our Asset Management Plan (AMP) that sets out what infrastructure we will deliver, where, when and how much it will cost.

The AMP aligns with Auckland Council's strategic plans and looks at how we will tactically and cost-effectively manage our infrastructure. While the AMP has a 20-year horizon, in reality, our planning extends more than 50 years due to the long life and strategic nature of our infrastructure assets.



Enabling growth

Every year we invest hundreds of millions of dollars in growth-related projects. Almost half of our \$5.7 billion 10-year capital expenditure forecast for water and wastewater will be invested in providing capacity for growth.

This investment enables us to continually expand our network capacity to keep ahead of Auckland's increasing demand for water and wastewater services.

Our investment is self-funded. We receive no income from property rates or the government.

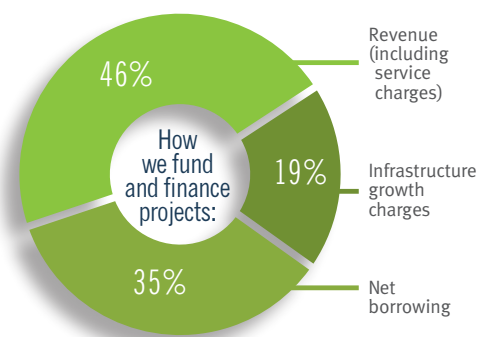
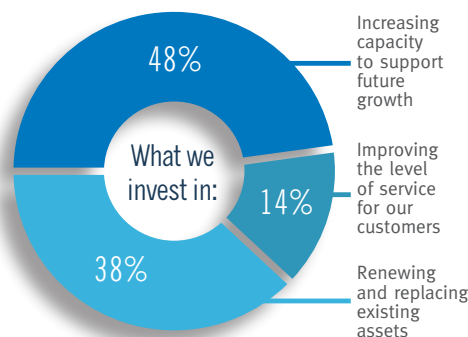
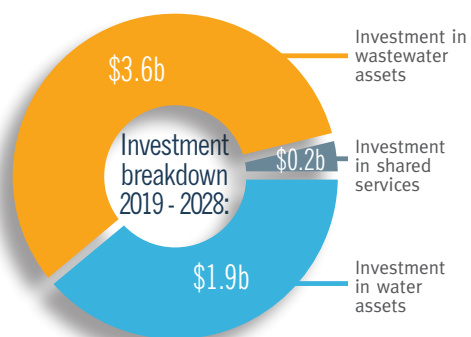
We are required by law to manage our operations efficiently and keep overall costs of water supply and wastewater services to a minimum. Through efficiencies and economies of scale we have achieved this while delivering annual savings of around \$100 million compared with long-term historical forecasts. Today the average water and wastewater bill represents less than 1 per cent of the average household income.

The risks in servicing growth

As with any long term planning, there is always going to be some level of risk.

One risk we face is development uncertainty, where actual developments may differ from the plans in regards to location, timing, type, size and rate of development.

Obtaining regulatory approvals also pose risks for us. If the application is not timed correctly we can face delays in proceeding with the design and construction of water and wastewater treatment facilities as these cannot occur ahead of obtaining the necessary resource consents.



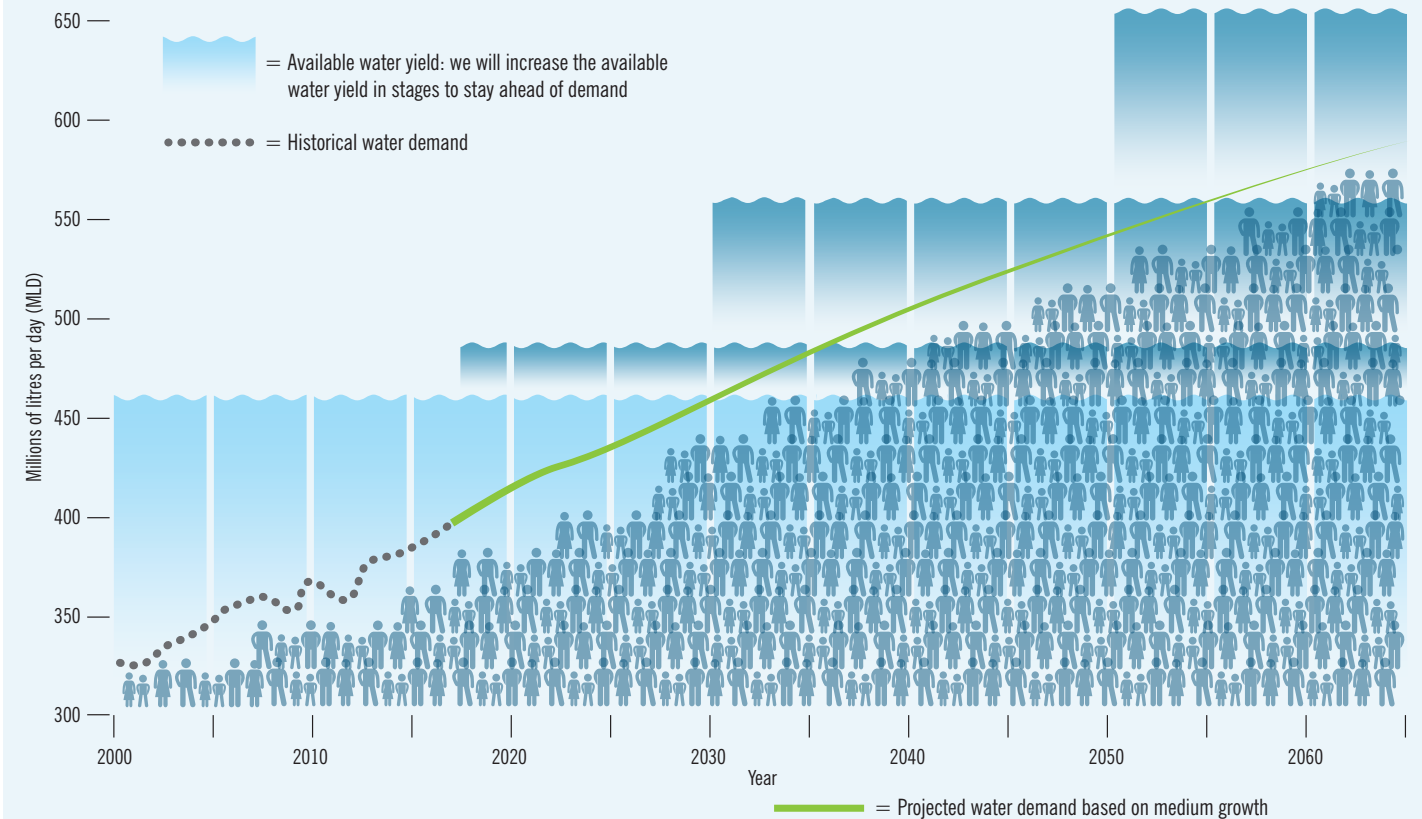
Our treatment plants and networks have capacity to allow **55,000** new homes to connect today. Over the next **10** years we will expand our infrastructure to provide capacity for a further **155,000** homes



WATER ASSET STRATEGY

An overview of how we will deliver water to a growing Auckland

Staying ahead of population growth



Currently we service about 1.5 million people living in Auckland. Over the next 30 years this population will grow significantly.

Statistics New Zealand has projected medium population growth of 700,000 and high population growth of one million people for Auckland over the next 30 years. We have adopted the medium population forecast for our planning purposes.

Our challenge is to meet the demands of growth without compromising on our mission to deliver reliable, safe and efficient water and wastewater services.

Between 2019 and 2028, we will invest more than

\$1.9 billion on expanding and upgrading our water network. A further \$2.9 billion will be invested over the following 10 years.

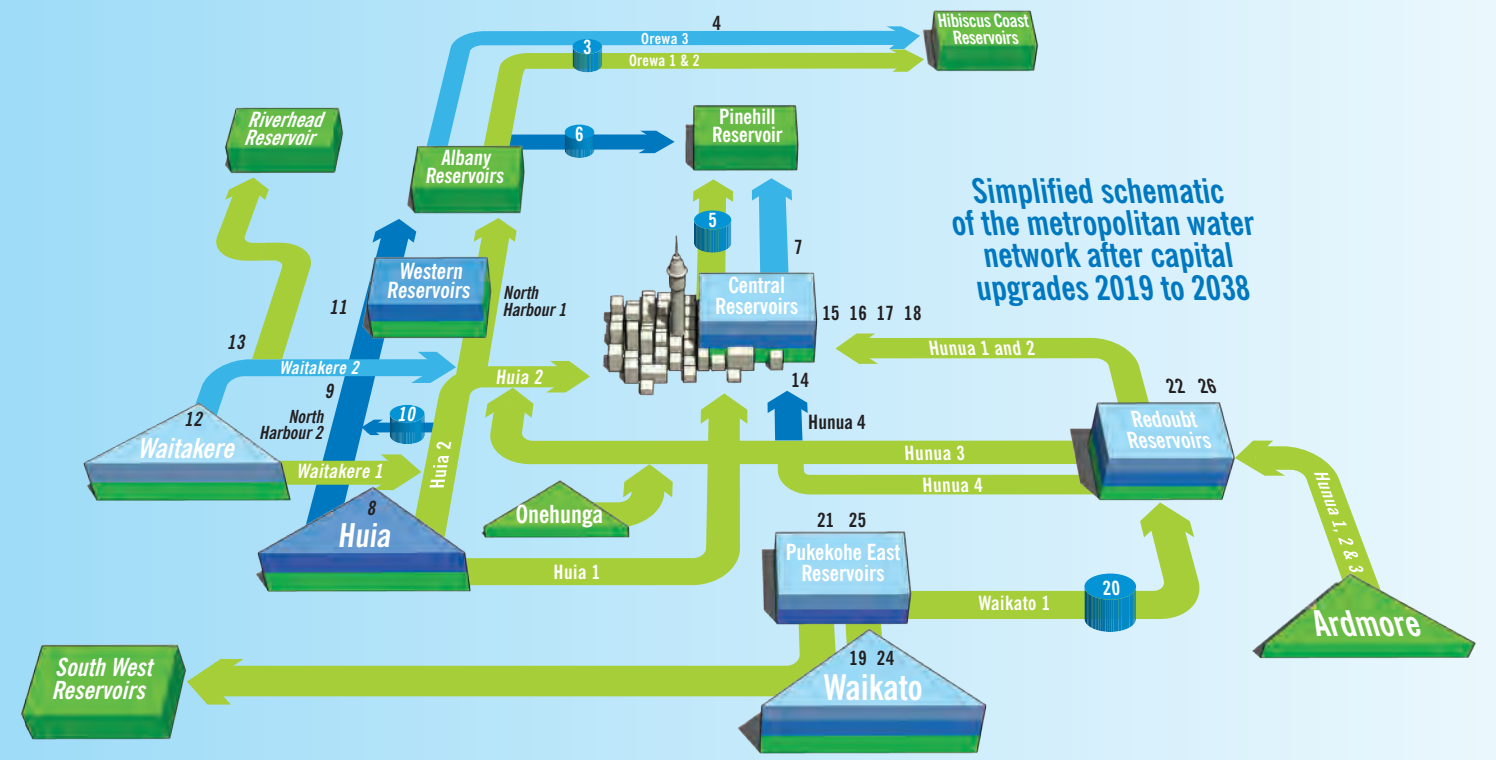
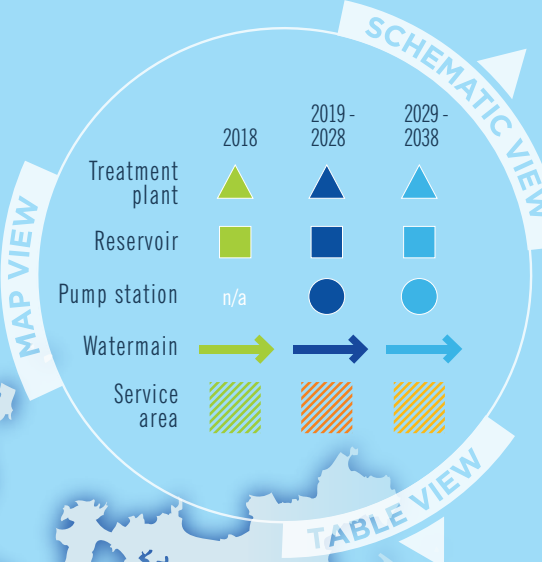
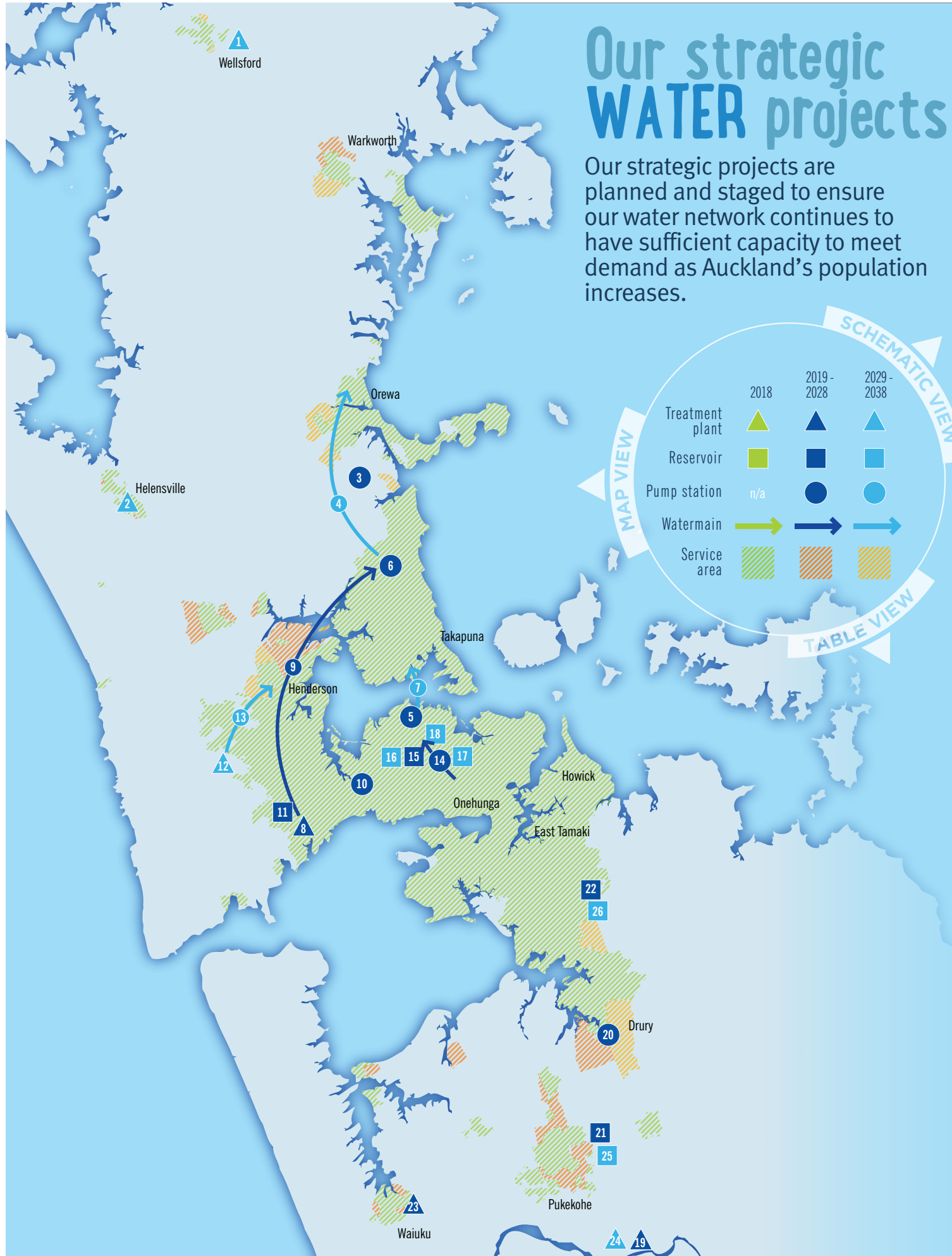
Our strategic projects have been planned and sequenced to ensure our water network continues to have sufficient capacity to meet both three-day peak demand and provide resilience during system outages.

The timely construction of treated water storage reservoirs will ensure we continue to meet the public health grading requirement to have 24 hours of storage as a contingency to disruption within supply zones.

Between 2019 and 2028, we will invest more than \$1.9 billion on expanding and upgrading our water network. A further \$2.9 billion will be invested over the following 10 years to 2038.

Our strategic WATER projects

Our strategic projects are planned and staged to ensure our water network continues to have sufficient capacity to meet demand as Auckland's population increases.



Area	Project description	2019 - 2028	2029 - 2038
Rodney	1 Wellsford water supply augmentation		
	2 Helensville water supply augmentation		
	3 Construct pump station to boost supply from Albany to Hibiscus Coast	\$16m	\$174m
	4 Construct Orewa 3 Watermain		
North	5 Construct pump station to boost supply from Auckland City to North Shore		
	6 Construct watermain and pump station to supply Pinehill from Albany	\$11m	\$0
	7 Construction of new watermain as part of planned NZTA Waitemata Harbour crossing*		
West	8 Replace Huia Water Treatment Plant		
	9 Construct North Harbour 2 Watermain		
	10 Construct pump station to boost supply from central to west Auckland	\$605m	\$205m
	11 Construct additional reservoirs in the west		
	12 Replace Waitakere Water Treatment Plant		
Central	13 Replace Waitakere 2 Watermain		
	14 Complete Hunua 4 Watermain to Khyber reservoirs		
	15 Construct reservoir at Khyber Reservoir Complex		
	16 Upgrade Ponsonby Reservoir	\$102m	\$69m
	17 Replace Domain Reservoir		
	18 Replace Khyber 3 Reservoir		
South	19 Increase Waikato Water Treatment Plant capacity to 175 MLD		
	20 Construct pump station to boost supply via Waikato Watermain to Redoubt Reservoirs		
	21 Construct Pukekohe East Reservoir at Runciman Road		
	22 Construct reservoir at Redoubt Road	\$135m	\$365m
	23 Waiuku water supply augmentation		
	24 Increase Waikato Water Treatment Plant capacity to 250 MLD		
	25 Construct additional Pukekohe East Reservoir		
26 Construct additional Redoubt Road Reservoir			
Other programmes	Increasing capacity to support growth	\$172m	\$361m
	Renewing and replacing existing assets	\$838m	\$1560m
	Improving the level of service for our customers	\$35m	\$162m
TOTAL		\$1914m (\$1.9 billion)	\$2896m (\$2.9 billion)

All monetary figures are nominal. MLD = millions of litres per day
 *Currently in third decade. Subject to NZTA timing for the second harbour crossing.