



Watercare Services Limited

Quarterly Report

Quarter ended 30 June 2016

CCO Governance and Monitoring Committee

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Executive Summary

2015/2016 revenue was \$570m. The result was \$33m favourable to budget primarily due to vested asset income which was favourable by \$21.2m and water & wastewater revenue which was favourable by \$9.5m.

Performance against Statement of Intent (SOI) key performance indicators remained good through the fourth quarter. Annual performance against the SOI key performance indicators was positive, with 21 out of 23 measures being fully met.

Watercare continued to meet and work closely with Local Boards, community groups and associations throughout the quarter to provide project updates and notifications regarding significant operational activity and approvals for works in local parks that require Local Board approval.

There were no substantial changes to the risks to Watercare operations during the quarter. The Internal Audit function produces an annual plan which is approved by Watercare's Audit and Risk Committee and there is quarterly reporting by management against the plan for the Committee. The Audit and Risk Committee maintains oversight of progress by management in implementing the recommendations arising from Internal Audit's work. The Committee is satisfied that all matters raised are being addressed by management.

The Watercare Executive Management Team regularly gives consideration as to the possibility of events that would trigger a requirement for continuous disclosure. There were no such events during the reporting period.

Strategic issues and focus areas

Customer Focus

- **Customer survey:** A customer satisfaction survey for key customers was undertaken during the quarter. The results were very positive, and show that customer satisfaction increased significantly since 2013.
- **Flexibility for Landlords:** Tenancy legislation requires residential landlords to pay for all fixed charges and, if agreed by the tenants, to require them to pay the consumption charges. As part of our continued customer focus, Watercare implemented a flexible billing option which will provide an option for landlords to prepay the entire fixed annual wastewater charge in a single lump sum. There has been significant uptake from the landlord / property manager community in this new, flexible billing option.

Planning for Growth

- **Developer Forum:** In June Watercare held a forum for developers. Approximately 60 developers and other interested parties attended the afternoon session, including representatives from Auckland Council and Auckland Transport. After a welcome address by the Chief Executive, the forum featured presentations on growth in Auckland, Watercare's plans to cater for growth over the next 30 years, infrastructure planning for growth area with a focus on Whenuapai (Auckland Council's first area targeted for land release) and on infrastructure funding. Developer Cameron Wilson from Oyster Capital also presented his Whenuapai SHA development (the first SHA to have titled sections) and his positive experience working with Watercare. The feedback from the development community has been very favourable.
- **Asset Management Plan 2016 to 2036:** The Asset Management Plan 2016 to 2036 was published on Watercare's website on 1 July 2016. Separate documents summarising the water asset strategy and wastewater asset strategy are also available on the website. Appended as Appendix A is a copy of the documents summarising the water asset strategy and the wastewater asset strategy.

Working with Auckland Council

Watercare continued to work closely with Auckland Council on key initiatives of mutual benefit throughout the quarter. A summary of recent collaboration initiatives is below.

- **Ministry for the Environment's National Policy Statement on Urban Development Capacity:** The Ministry for the Environment released the National Policy Statement on Urban Development Capacity in June. Watercare's submission in relation to the National Policy Statement was attached to Auckland Council's submission. The submission was a targeted submission on the time required to service new growth with water and wastewater infrastructure, and the costs to service growth.
- **Proposed Urban Development Authority:** Watercare continued to work closely with Auckland Council in relation to the proposed Urban Development Authority. Watercare worked collaboratively with Auckland Council to provide additional feedback to the Ministry of Business, Innovation & Employment which was sent on 2 August 2016.
- **Local Government Act Amendment Bill (No 2):** Watercare worked collaboratively with Auckland Council to review and consider the Local Government Act Amendment Bill (No 2), and assisted with submissions on the proposal.

- **Sundry billing:** Auckland Council has engaged PwC to review and recommend improvements to Auckland Council's sundry billing and collection processes. Watercare has agreed to share our current best practice in support of this exercise.
- **Manukau Harbour Centre of Excellence:** Watercare has commissioned a three-year research programme by the National Institute of Water and Atmospheric Research (NIWA), which will establish a coupled hydrodynamic and water-quality model of New Zealand's second largest harbour.

The work is part of a strategic partnership between Watercare and NIWA, and will provide sought after information on how nutrients enter the harbour and how they subsequently move around the harbour and the lower levels of the food web.

Watercare has offered co-ownership of the model to Auckland Council and the RIMU team is helping with its development. Some staff members at Auckland Council, as well as the Manukau Harbour Forum, had been advocating for the creation of a hydrodynamic model focused on understanding the causes of sedimentation in the harbour for months. By funding the backbone of the model and the nutrient layer, Watercare will make it easier for Auckland Council to add the sediment layer. The Healthy Waters and RIMU teams have expressed interest and NIWA is currently scoping this potential additional part of the work as a proposal to Auckland Council. The work already funded by Watercare is to commence early September.

- **Digital Auckland:** Watercare continued to work with the Digital Auckland group on the implementation of the new Forward Works geospatial viewer (a national initiative), and supplies a monthly upload of its forward works information to the existing forward works viewer. Watercare has been liaising with Digital Auckland on the development of Building Information Modelling (BIM) technology/standards. In addition, Watercare continues to work with Digital Auckland on the development of the Forward Land and Infrastructure Portal (FLIP).
- **Water testing in Manurewa:** A community group in Manurewa, consisting of a local senior high school and representatives from Manurewa Marae, are running a water quality project. Watercare is working with Auckland Council to provide water testing services to this community group.
- **\$1 billion Infrastructure Fund:** Watercare has been working alongside Auckland Council and Auckland Transport to identify projects that could be suitable for inclusion within the framework of the infrastructure fund.
- **Transactional banking services:** Watercare continued to work with Auckland Council on exploring co-sourcing procurement opportunities. In the case of the recent transactional banking contestable process, Watercare participated in the process but it was deemed that:
 1. The likely rates were more expensive than Watercare's negotiated rates; and
 2. The risk of changing transaction bankers was too great and Watercare supported the view of Auckland Council Officers that had highlighted this risk to Senior Council Executives.

Accordingly, Watercare decided to withdraw from Auckland Council's transactional banking RFP.

Watercare understands that Auckland Council has appointed a new transactional services provider, but will not be in a position to cut-over for a considerable period of time.

Highlights for the last quarter

Performance against the Statement of Service Performance: The Statement of Service Performance contains 23 non-financial measures against which the company performance was measured for the 2015/16 financial year. These measures are consistent with the measures within the Watercare Statement of Intent 2015-2018. Of the 23 measures, 21 were fully met. The two measures not met were:

- The percentage of voluntary staff turnover for 2015/16 was 12.9% against a target limit of 12% or less. During the year Watercare undertook a significant restructure to better align the business to deliver on customer outcomes. A slight increase in the level of voluntary staff turnover is not unusual in this context. We are reviewing the company's remuneration framework as well as the collective employment agreements to ensure that employment benefits are competitive. We have recently streamlined our recruitment process and will introduce a new performance review process for 2016/17 that will enable regular and timely feedback and conversations around development opportunities between managers and their teams. Watercare, along with many other Auckland based businesses, continued to be challenged by the shortage of skilled resources, in particular, skilled maintenance staff.
- The percentage of complaints resolved and closed within 10 working days for 2015/16 was 93.5% against a target of 98.5%. While Watercare did not meet this target, the company successfully reduced the overall volume of complaints by 55.7% from 1675 in 2014/15 to 742 in 2015/16. This was due to specialised teams implementing a first-call resolution approach to customer enquiries, thereby preventing repeated calls and escalation to complaints. Of the 742 complaints received, 93.5% (694) were resolved within the stipulated 10-day period, against a target of 95%.

Mangere Wastewater Treatment Plant tours: Approximately 220 people toured the plant over three days in April. These tours received favourable media coverage in the Manukau Courier, Central Leader and Western Leader.

Community open evenings: Open evenings were held for the following projects: Warkworth Snells Algies Wastewater Servicing; South West Wastewater Servicing; and Northern Interceptor and North Harbour No. 2 Watermain Designation process. Attendance numbers varied but were highest in the south where over 50 people attended the two open evenings.

Future outlook

- **Wide Area Network Services:** Watercare has invited qualified parties to participate in a formal selection process to provide all Wide Area Network (WAN) services for its corporate internal data network. Watercare is a lifeline utility, and operates '24x7' across the Auckland region. We have therefore advised the market that we require current technology solutions which meet a series of technical requirements including capacity and resilience. We have also clearly signalled that solutions proposed must reduce complexity as far as possible, and that scalability and ease of operational management are also key drivers for Watercare.

The formal tender process is underway and is subject to Watercare's usual probity requirements. Having regard to the criticality of the services which Watercare provides, the selection of WAN provider necessitates a thorough and risk based assessment of the potential solutions put to it. Watercare is aware that Auckland Council is developing its own WAN infrastructure, and we have invited the Council to present its solution for evaluation as part of the formal tender.

The tender closed on 4 August 2016. Watercare received five responses. Auckland Council chose not to provide a response.

- **Auckland Unitary Plan:** Watercare, in conjunction with Auckland Council staff, is in the process of undertaking a review of the implications of the Independent Hearing Panel's recommendations to the Unitary Plan. Once Auckland Council has notified its decision in relation to the Independent Hearing Panel's recommendations on the Unitary Plan, Watercare will continue to conduct the necessary reviews to ensure it has appropriate plans in place.

Infrastructure Project Updates

Hunua 4 Watermain: Laying of the section of the new Hunua 4 watermain from Redoubt Rd in Manukau City to Campbell Road in One Tree Hill is now complete and this section of the main has been commissioned. This is a significant achievement and results in a significant capacity increase and risk reduction to Watercare as there are a number of cross connections to Watercare's existing network along this section of the route, including a new feed to the Auckland Airport. The Campbell Road Reservoir has been filling four times faster than when it was filling off the existing Hunua 1 Watermain, providing increased capacity for growth in this area.

North Harbour 2 Watermain and Northern Interceptor: Resource consents have been obtained for the construction of the North Harbour 2 Watermain and Northern Interceptor pipelines across the Upper Waitemata Harbour at Greenhithe. The Northern Interceptor is to cross under the Harbour bed while the watermain is to be suspended from NZTA's existing bridge.

Franklin Road and Collingwood Street combined sewer separation: Watercare has been working closely with Auckland Council, Auckland Transport, Stormwater and Vector to undertake combined infrastructure upgrades in these roads. Watercare has commenced the sewer/storm water separation works and the Auckland Council building consent team has provided dedicated resources and reduced turnaround times to increase efficiencies of the separation works Watercare is undertaking in the private properties. Feedback at the community liaison meetings has been very positive.

Financial Performance

\$'m	FY16 Q4 Actual	FY16 Q4 Budget	Variance
Operational			
Revenue	570	537	33
AC funding	-	-	-
Expenditure excluding depreciation	288	291	3
Depreciation and amortisation	216	217	1
Capital Expenditure	295	397	102
Net borrowings - AC	1,134	1,227	93
Net borrowings - External	444	443	(1)

*RAG Status:

- Green - Performance on target or better
- Amber - Target may not be met, corrective action taken
- Red - Target may not be met, action required

Revenue

2015/16 revenue was \$570m. The result was \$33m favourable to budget primarily due to vested asset income which was favourable by \$21.2m and water & wastewater revenue which was favourable by \$9.5m.

Expenditure

Operating expenses were \$288m, \$3m favourable to budget with favourable variances for asset operating costs, professional services and general overheads. This was partially offset with higher maintenance costs. Interest expense was \$0.5m favourable to budget largely due to lower debt than budgeted.

Depreciation

Depreciation and amortisation was \$1m favourable to budget.

Capital expenditure

Capital expenditure was under budget by \$102m. A number of infrastructure programmes (scope and timing) were reviewed to ensure strategic asset needs are being met resulting in a number of projects being deferred. This deferral does not affect Watercare's ability to provide for growth.

Borrowings

Overall net borrowings were \$92m below budget largely due to lower capital expenditure.

Water Utility Consumer Assistance Trust (WUCAT) *(Note: All figures supplied by WUCAT.)*

The following table summarizes the results of the Trust since it started in 2011/12:

WUCAT Summary		
Financial year	Trust approved applications (includes WSL additional write offs)	\$000's
Jun-12	33	\$ 29
Jun-13	172	\$ 196
Jun-14	123	\$ 114
Jun-15	150	\$ 149
Jun-16	118	\$ 90
Total	596	\$ 577

When the Trust approves hardship relief, it enters into an understanding with the customer as to how the customer will "earn" the relief. Often this might be that the customer agrees to pay their monthly bill for (say) six months, at the end of which all outstanding debt or arrears at the date the arrangement was entered into is agreed to be written off.

Most customers satisfy their obligation and the old debt is written off. Some customers, however, do not meet their obligations and therefore no write off occurs. At any point in time there will be a number of customers in the process of satisfying their side of the arrangement.

Summary of WUCAT Arrangement Approvals			
No. of Arrangements Entered Into	No. of Arrangements Fully Satisfied	No. of Arrangements Still Being Met	No. of Arrangements Lapsed Unfulfilled
596	457	67	72

Amount of Relief Approved \$	Amount of Relief Fully Earned \$	Relief Yet to be Fully Earned \$	Relief Voided due to Lapsed Unfulfilled Arrangement \$
\$577k	\$467k	\$58K	\$52k

The results of the last 3 WUCAT meetings have seen 34 applicants successfully complete the budget process and have \$21k of hardship relief approved by the Trust.

WUCAT Summary last 3 meetings		
Month	Trust approved applications	\$000's
Apr-16	12	\$ 7.04
May-16	14	\$ 9.95
Jun-16	8	\$ 4.30
Total	34	\$ 21

Restrictions

The status of restrictions as at 30 June 2016 was as follows:

Restriction Summary Year-ending	Commercial		Residential		Total	
	Restriction	De-restriction	Restriction	De-restriction	Restriction	De-restriction
30-Jun-12	1		5		6	0
30-Jun-13	13	11	6	4	19	15
30-Jun-14	20	20	17	14	37	34
30-Jun-15	31	30	53	39	84	69
30-Jun-16	8	9	16	17	24	26
Total	73	70	97	74	170	144
Restrictions currently	3		23		26	

Performance measures

Measure	2015/16 Target	Apr 2016	May 2016	Jun 2016
The extent to which the local authority's drinking water supply complies with part 4 of the drinking-water standards (bacteria compliance criteria)	100%	100%	100%	100%
The extent to which the local authority's drinking water supply complies with part 5 of the drinking-water standards (protozoal compliance criteria)	100%	100%	100%	100%
Average number of wet weather overflows per discharge location	≤ 2 overflows per year per engineered overflow point	Annual Measure	Annual Measure	0.69
The number of dry weather overflows from the territorial authority's sewerage system, expressed per 1000 sewerage connections to that sewerage system	≤10	0.03	0.03	0.04
Compliance with the territorial authority's resource consents for discharge from its sewerage system measured by the number of: a) abatement notices b) infringement notices c) enforcement orders d) convictions received by the territorial authority in relation to those resource consents	a) ≤2 b) ≤2 c) ≤2 d) ≤2	0	0	0
Median response time for attendance for urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site.	≤ 60 mins	42 mins	43 mins	44 mins
Median response time for resolution of urgent calls-outs: from the time that the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption	≤ 5 hours	2.7 hours	2.8 hours	3.0 hours
Median response time for attendance for non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel reach the site	≤ 3 days	2.8 days	2.9 days	3.0 days
Median response time for resolution of non-urgent call-outs: from the time that the local authority receives notification to the time that service personnel confirm resolution of the fault or interruption	≤ 6 days	3.9 days	4.1 days	4.8 days
Percentage of customers surveyed satisfied with Watercare's delivery of water and wastewater services	≥80%	84.4%	84.4%	84.2%
The total number of complaints received by the local authority about any of the following: a) drinking water clarity b) drinking water taste c) drinking water odour d) drinking water pressure or flow e) continuity of supply f) the local authority's response to any of these issues expressed per 1000 connections to the local authority's networked reticulation system	≤ 10	5.6	5.6	5.6

Attendance at sewerage overflows resulting from blockages or other faults: median response time for attendance - from the time that the territorial authority receives notification to the time that service personnel reach the site	≤ 60 mins	44 mins	45 mins	46 mins
Attendance at sewerage overflows resulting from blockages or other faults: median response time for resolution - from the time that the territorial authority receives notification to the time that service personnel confirm resolution of the blockage or other fault	≤ 5 hours	2.7 hours	2.8 hours	2.9 hours
The total number of complaints received by the territorial authority about any of the following:a) sewerage odour b) sewerage system faults c) sewerage system blockages d) the territorial authority's response to issues with its sewerage system expressed per 1000 connections to the territorial authority's sewerage system	≤ 50	20.9	21.1	20.8
Percentage of complaints being 'closed and resolved' within 10 working days (12 mth rolling average)	≥95%	95.6%	95.1%	93.5%
Percentage attendance at the quarterly meetings of the Mana Whenua Kaitiaki Forum	100%	100%	100%	100%
Lost-time injury frequency rate per million hours worked (12 month rolling average)	≤5	3.75	2.51	1.92
Percentage of voluntary leavers relative to number of permanent staff (12 mth rolling average)	≤12%	12.32%	12.74%	12.92%
Total recordable injury frequency rate per million hours worked (12 month rolling average)	<30	16.90	14.42	23.02
Minimum funds flow from operations to interest cover (FFO) before any price adjustment	≥2.5	3.69	3.71	3.71
Percentage of household expenditure on water supply services relative to the average household income	≤1.5%	0.85%	0.86%	0.86%
The average consumption of drinking water per day per resident (gross PCC) (12 month rolling average)	272 + / - 2.5%	272	273	272
The percentage of real water loss from the local authority's networked reticulation system (rolling 12 mth average)	≤13%	12.9%	13.0%	13.0%

Contribution to Māori outcomes

Fifteen Watercare staff were formally welcomed on to the Waikato Tainui Turangawaewae Marae on the 7th of April 2016 and hosted overnight at the Waikato-Tainui College for Research and Development at Hopuhopu, Ngaruawahia. On the 8th of April, ten Watercare staff members paddled 18 km by waka or were on the support boat with Waikato-Tainui down the Waikato River from the Elbow sports ground to Port Waikato. A reciprocal tour of southern Watercare sites occurred with Waikato-Tainui representatives on the 11th of April.

Watercare continued to engage with Te Waka Angamua on the development of a Māori Responsiveness Plan (MRP). Watercare has worked extensively with Maori to identify ways to establish and improve:

- Our relationship at a governance level.
- Our relationship with iwi environmental managers across the 19 iwi entities of Auckland.
- The process we have in place for engaging with iwi on our resource consents

- Education and training of Watercare staff in Maori protocols and language
- Marae water and wastewater facilities - pilot project
- Maori economic development where relevant

The plan will incorporate the areas above as well as additional opportunities where Watercare can further improve Māori responsiveness.

Initiative - Water Supply and Wastewater	How it contributes to Māori outcomes	Progress	Q4 Spend
<p>Mana Whenua Kaitiaki Forum</p> <p>Māori knowledge and world views are respected and its validity and value acknowledged</p>	<p>M03 Rangatiratanga – self determination</p> <p>Mo4 Te Tiriti o Waitangi – the Treaty of Waitangi</p> <p>M05 Mana tangata/ōritetanga – equal opportunity and citizenship</p>	<p>Forum continues to meet regularly. Item agendas over the last quarter include:</p> <ul style="list-style-type: none"> • Working framework and protocols for archaeologists under s.45 Heritage New Zealand Pouhere Taonga Act 2014. • Proposed NIWA estuary resilience research • Marine environmental management governance, in particular Manukau and Kaipara harbours • Process improvement to place projects in context of the “big picture” to achieve efficiency and consistency in decision making • Whatapaka awa aquifer and Clark’s Beach wastewater treatment plant • Assistance with the Onehunga water take application • Opportunities for use of Three Kings pumped storm water 	<p>\$37.5k</p>
<p>Iwi Engagement on Watercare Projects</p> <p>Robust engagement framework for Iwi Authority resource management staff to be actively involved in the planning and operational</p>	<p>M07 Matauranga Māori – Māori knowledge and wisdom</p>	<p>A schedule of Watercare’s projects is sent to the 19 Mana Whenua entities of Auckland for them to identify their interest in being involved at an early stage in the planning process.</p> <p>At any one time Watercare has underway hundreds of infrastructure projects of various scale and complexity. These projects are at a range of stages from high</p>	<p>\$307</p>

<p>performance of water and wastewater infrastructure</p>		<p>level planning and consenting to construction. Consultation with interested Mana Whenua is regarded as an integral part of Watercare’s planning and operational procedures and most of the larger projects require some degree of iwi engagement. Successful iwi engagement for such projects is not measured by the actual spend but by the relationships formed and mutual outcomes that such consultation achieves. Highlights include consultation on the Pukekohe Wastewater Treatment Plant resource consent application and the Waikato River Take application (South). Mana Whenua consultation has also been integral to progressing future wastewater servicing for Warkworth and Snells Algies in the north as well as Clarks Beach, Kingseat and Waiuku in the south. These projects include the Pukekohe East (Runciman) Reservoirs Project, the Omaha Wastewater Treat Plant discharge consent, Army Bay discharge consent, Ōhinerau-Mt Hobson water main upgrade consent, North Harbour 2 watermain and northern Interceptor notices of requirement. The initial form of project engagement occurs via a project list circulated to all 19 Iwi groups within the Auckland Region generally on a two monthly cycle. From this list different iwi groups are able to identify specific interests requiring further engagement. The Kaitiaki Manager’s Group – Water Sector meeting is also held on a quarterly basis to discuss Watercare related issues and projects. Watercare’s Iwi Relationship Manger also works with staff on operational issues helping to facilitate good relationships and outcomes.</p>	
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Key Local Board issues

During the quarter Local Boards were notified of pending works in their areas. This included the Northern Interceptor and North Harbour No. 2 watermain designation process, and Central Interceptor works.

Briefings were given to the Waitakere and Upper Harbour Local Boards on the Northern Interceptor and North Harbour No. 2 watermain designation process. These were followed with four public open days to present information about the proposals. Henderson Massey Local Board members joined Watercare for a site visit to affected areas. Similar meetings were held with the Franklin Local Board on the South West wastewater servicing which was followed by two well attended public open days in Clarks Beach and Franklin. Franklin Local Board members also attended the southern open days in support of Watercare.

Project meetings on the detailed design of the Central Interceptor are underway with the Albert Eden, Puketāpapa and more recently the Whau Local Board. Watercare, Auckland Council Parks Department and the Hibiscus and Bays Local Board met to discuss future development of the Mairangi Bay Park and Surf Club while information on overflows and water quality in St Mary's Bay was shared with the Waitemata Local Board. Watercare and Parks staff also joined Maungakiekie-Tamaki Local Board for a workshop on the Glendowie Wastewater upgrades project and are working towards landowner approval.

Information on the South West and North East rural wastewater servicing projects were shared with the Franklin and Rodney Local Boards. A second round of public information events will be held on 14 and 16 June and interested elected members have been invited.

Local Board chairs were sent Watercare's Annual Plan update presented to the Governing Body. A follow up presentation was provided to the Mangere Otahuhu Local Board at their request.

A selection of Local Board members from the Whau, Orakei and Waitemata Local Boards joined Watercare for the tour of Mangere Wastewater Treatment Plant on 8 April. Feedback from the members was very positive.

On 10 June Watercare joined a diverse range of stakeholders and the public at the inaugural Manukau Harbour Forum Symposium. Watercare's commitment to develop the hydrodynamic model for the benefits of the harbour was announced at the meeting.

At the end of June, Watercare's Asset Management Plan summary documents were shared with the local boards prior to public release.

Risk Management

Watercare has an established risk management policy and framework which follows the guidance of the ISO 31000 risk management standard. Risks are therefore identified and evaluated using likelihood and consequence scores, and ranked. The highest ranked and significant emerging risks are reviewed by senior management and the Board via management and Board level reporting.

There have been no substantial changes to Watercare's risk in the past quarter. The Internal Audit function produces an annual plan which is approved by Watercare's Audit and Risk Committee and there is quarterly reporting by management against the plan for the Committee.

The Audit and Risk Committee maintains oversight of progress by management in implementing the recommendations arising from Internal Audit's work. The Committee is satisfied that all matters raised are being addressed by management.

Disclosures

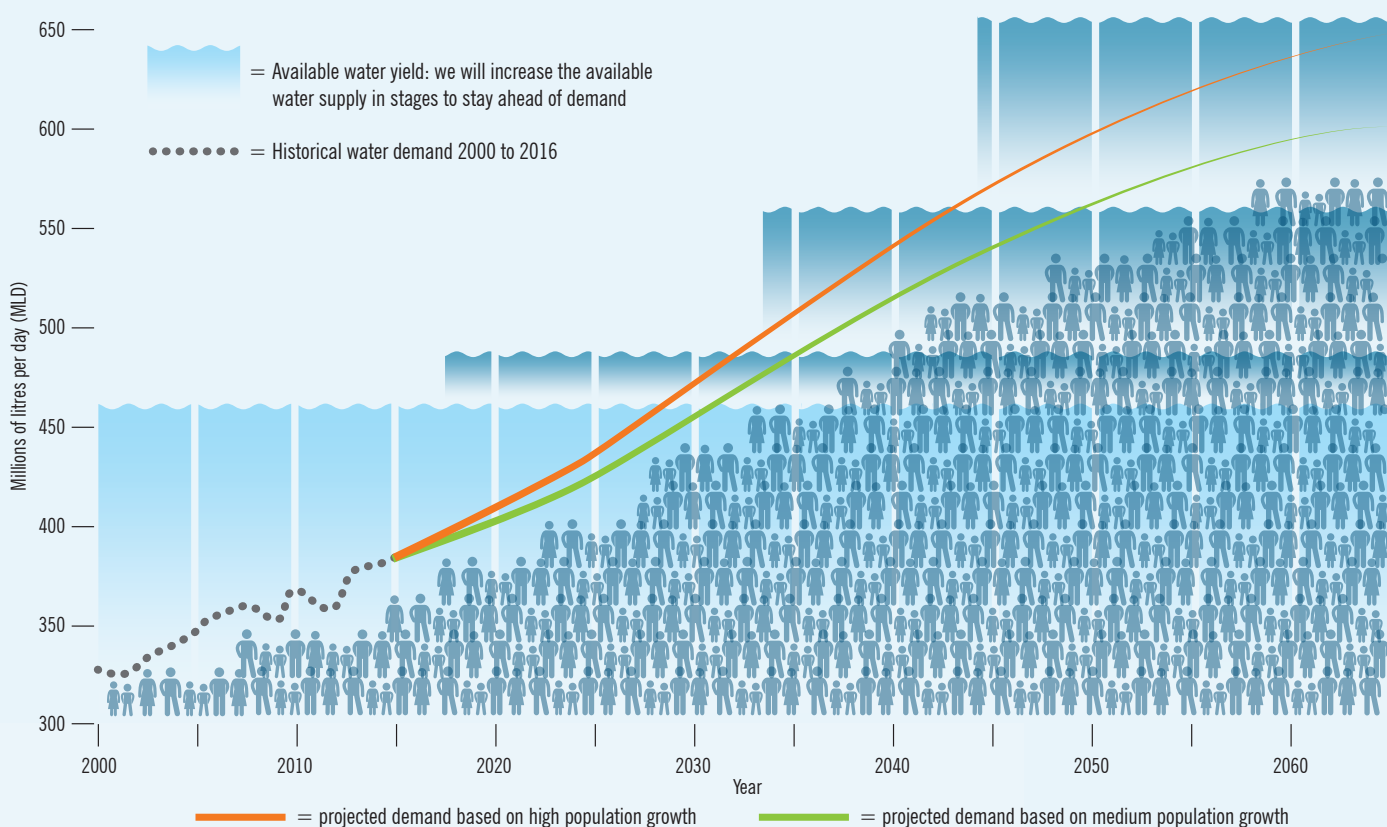
The Watercare Executive Management Team regularly gives consideration as to the possibility of events that would trigger a requirement for disclosure. There were no such events during the reporting period.

Appendix A
Water asset strategy and wastewater asset strategy summary documents

WATER ASSET STRATEGY

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

Staying ahead of population growth



Currently we service about 1.4 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 2016 and 2026, we will invest more than \$1.9 billion on expanding and upgrading our water network. A further \$2.8 billion will be invested over the following 10 years.

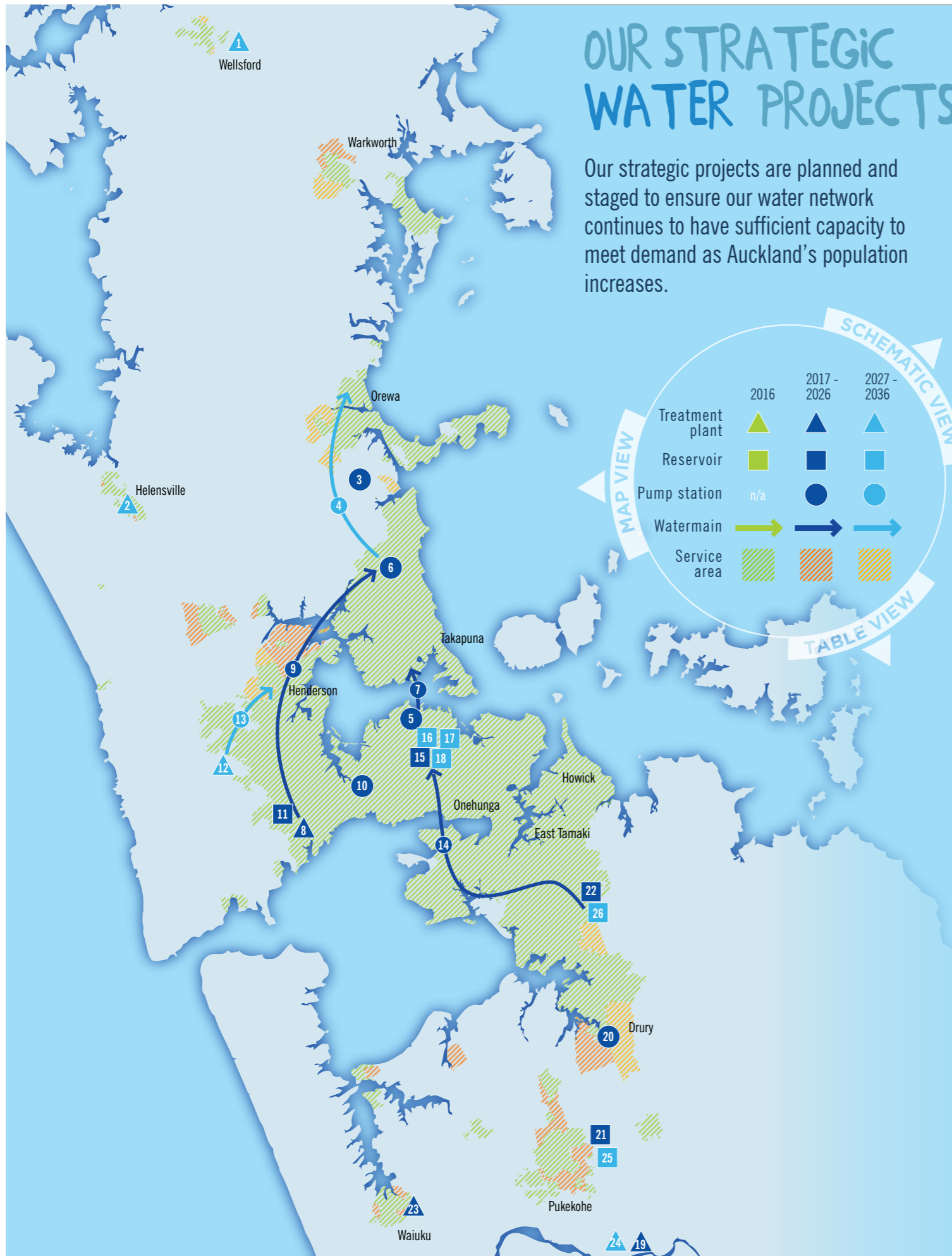
Our strategic projects have been planned and sequenced to ensure our water network continues to have sufficient capacity to meet demand and provide resilience during system outages.

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 2016 and 2026, we will invest more than \$1.9 billion on expanding and upgrading our water network. A further \$2.8 billion will be invested over the following 10 years to 2036.

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.

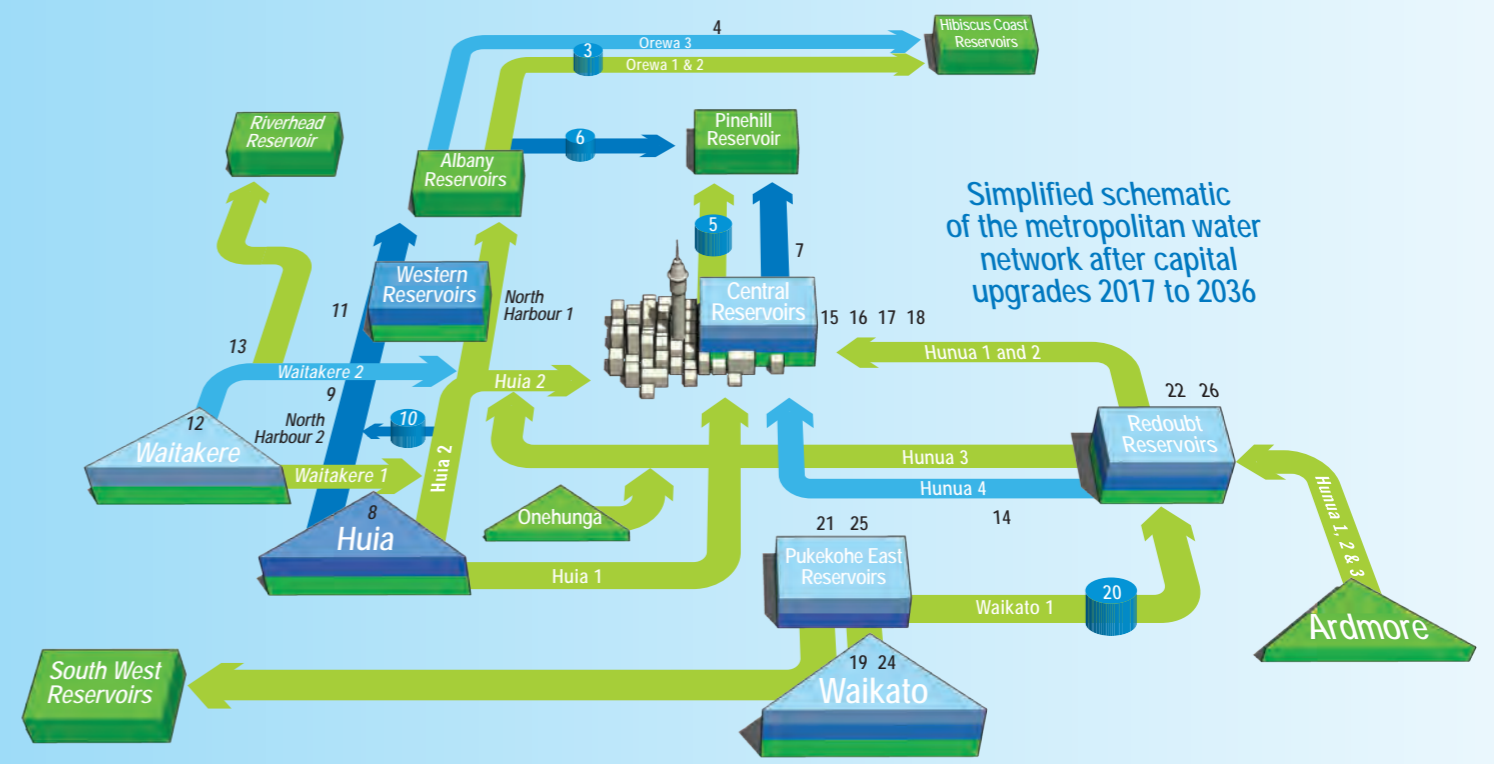


MAP VIEW

SCHEMATIC VIEW

TABLE VIEW

	2016	2017 - 2026	2027 - 2036
Treatment plant	▲	▲	▲
Reservoir	■	■	■
Pump station	n/a	●	●
Watermain	→	→	→
Service area	▨	▨	▨



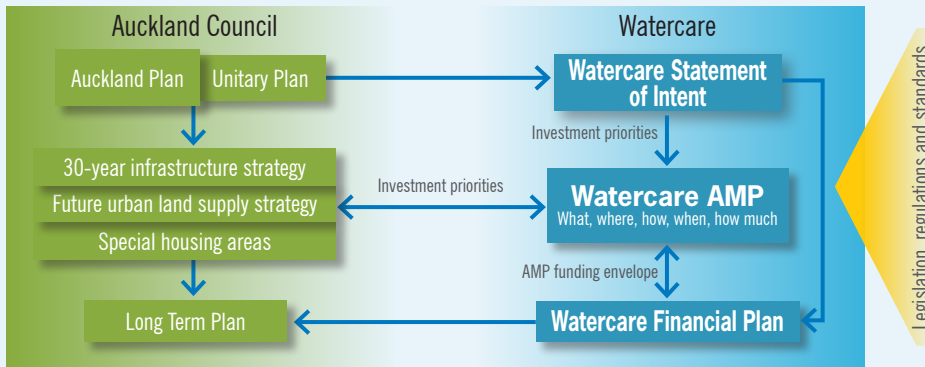
Area	Project description	2017 - 2026	2027 - 2036
Rodney	1 Wellsford water supply augmentation		
	2 Helensville water supply augmentation		
	3 Construct pump station to boost supply from Albany to Hibiscus Coast	\$34m	\$178m
	4 Construct Orewa 3 Watermain		
North	5 Construct pump station to boost supply from Auckland City to North Shore	\$134m	\$28m
	6 Construct pump station to boost supply from Albany to Pinehill		
	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	\$586m	\$215m
	11 Construct additional reservoirs in the west		
	12 Replace Waitakere Water Treatment Plant		
Central	13 Replace Waitakere 2 Watermain		
	14 Complete Hunua 4 Watermain		
	15 Construct reservoir at Khyber Reservoir Complex	\$88m	\$92m
	16 Upgrade Ponsonby Reservoir		
	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	\$138m	\$367m
	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	\$196m	\$275m
	Renewing and replacing existing assets	\$691m	\$1591m
	Improving the level of service for our customers	\$53m	\$46m
TOTAL		\$1921m (\$1.9 billion)	\$2792m (\$2.8 billion)

All monetary figures are nominal. *MLD = millions of litres per day

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.

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Enabling growth

Every year we invest hundreds of millions of dollars in growth-related projects. Almost half of our \$4.9 billion 10-year capital expenditure forecast 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.

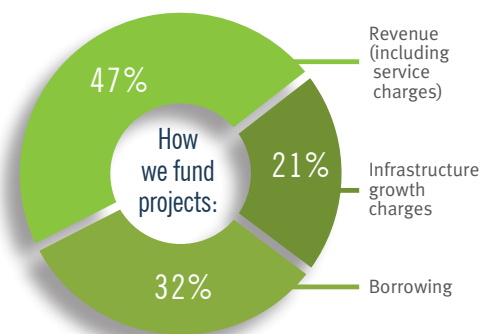
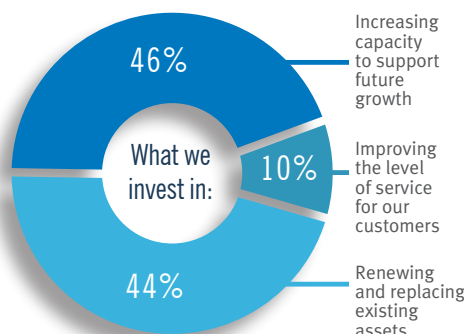
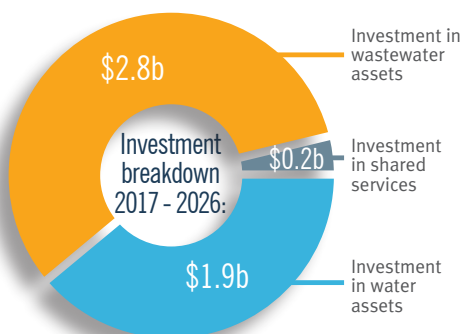
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Obtaining regulatory approvals also pose risks for us. If the application is not timed correctly we can face delays in proceeding with the design and construction of water and wastewater treatment facilities as these cannot occur ahead of obtaining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

OUR NETWORKS
HAVE CAPACITY
TO ALLOW
**45,000
NEW HOMES**
TO CONNECT TODAY.

.....

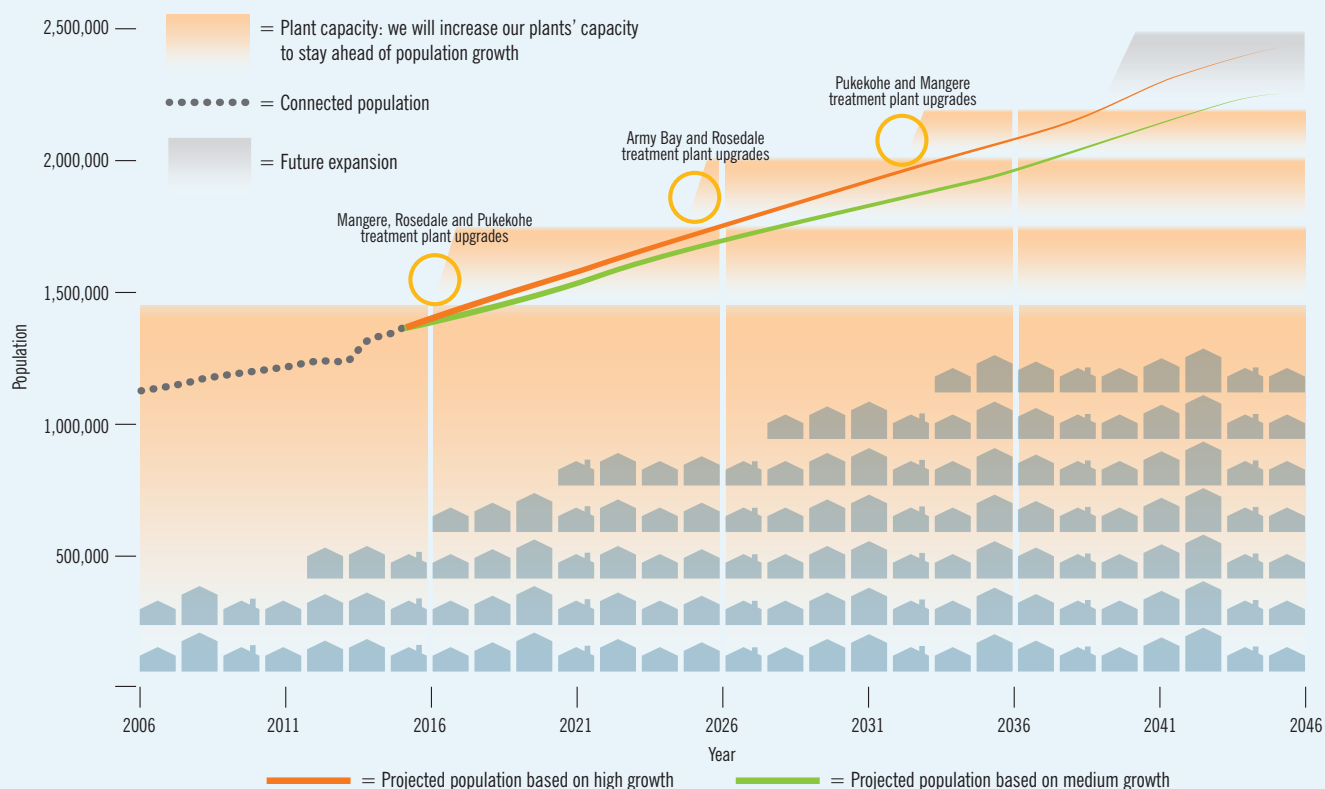
OVER THE NEXT
10 YEARS
WE WILL EXPAND
OUR INFRASTRUCTURE
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**195,000
HOMES**



WASTEWATER ASSET STRATEGY

An overview of how we will provide wastewater services to a growing Auckland

Staying ahead of population growth



Currently we service about 1.4 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 2016 and 2026, we will invest \$2.8 billion on expanding and upgrading our

wastewater network. A further \$3.1 billion will be invested over the following 10 years.

We have adopted a regional approach to planning our wastewater services. Strategic projects are planned and sequenced to ensure Auckland's wastewater is efficiently distributed across the 18 treatment plant catchments that service the region.

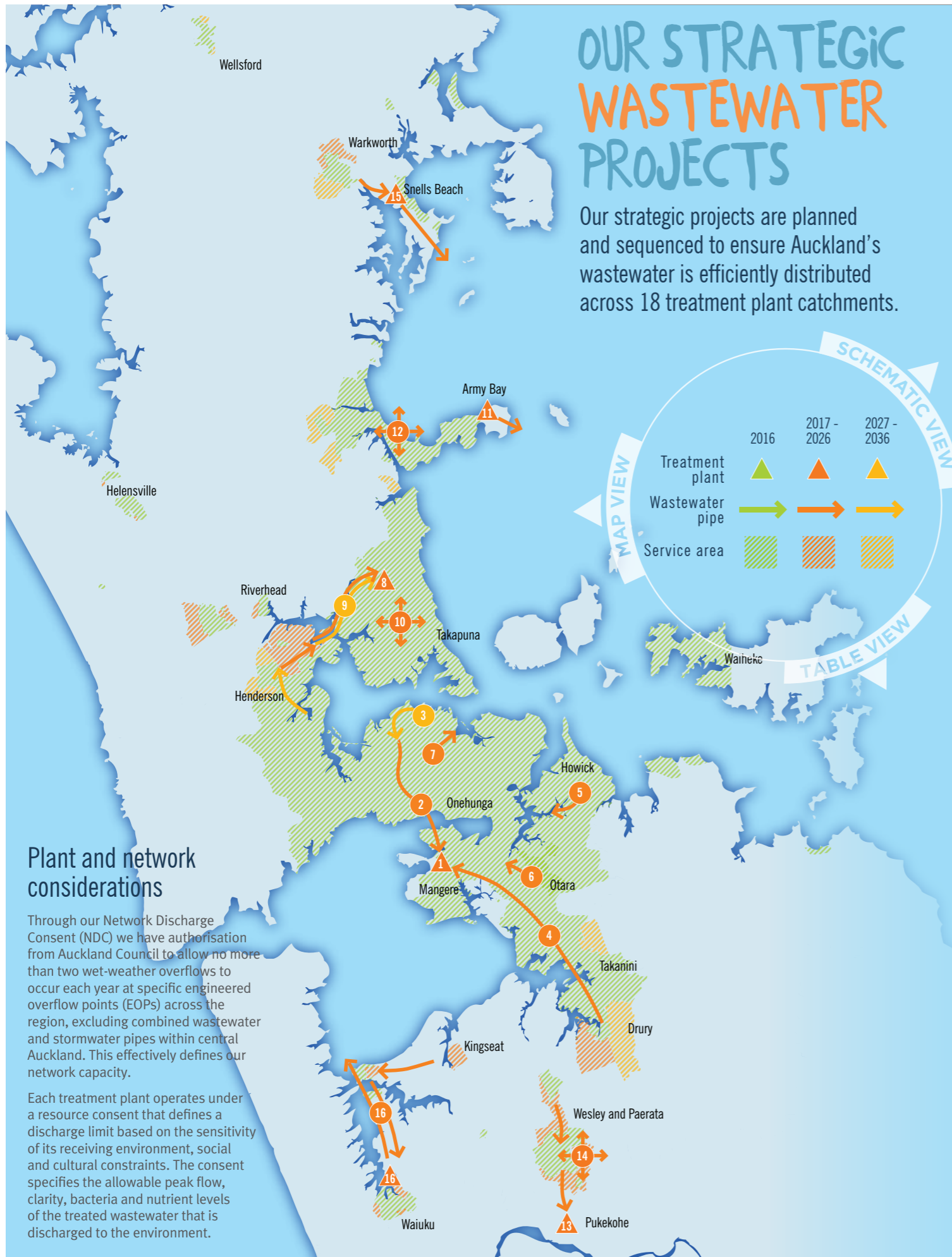
Projects will improve resilience within the network by maximising the use of existing assets and increasing connectivity across the region. For example, before integration the Rosedale treatment plant was only going to service wastewater from customers on the North Shore. Now, we are planning our

infrastructure to utilise the available capacity at Rosedale by directing flows across the region, off the Mangere Treatment Plant. This creates extra capacity and better utilises our assets to service a growing population.

A regional approach is also being undertaken to reduce the amount of stormwater and ground water entering the wastewater network. Flows in addition to wastewater erode the network's hydraulic capacity, which could be used to service growth and provide better levels of service to our customers. To combat this \$90 million will be spent on inflow and infiltration programmes over the next 20 years.

OUR STRATEGIC WASTEWATER PROJECTS

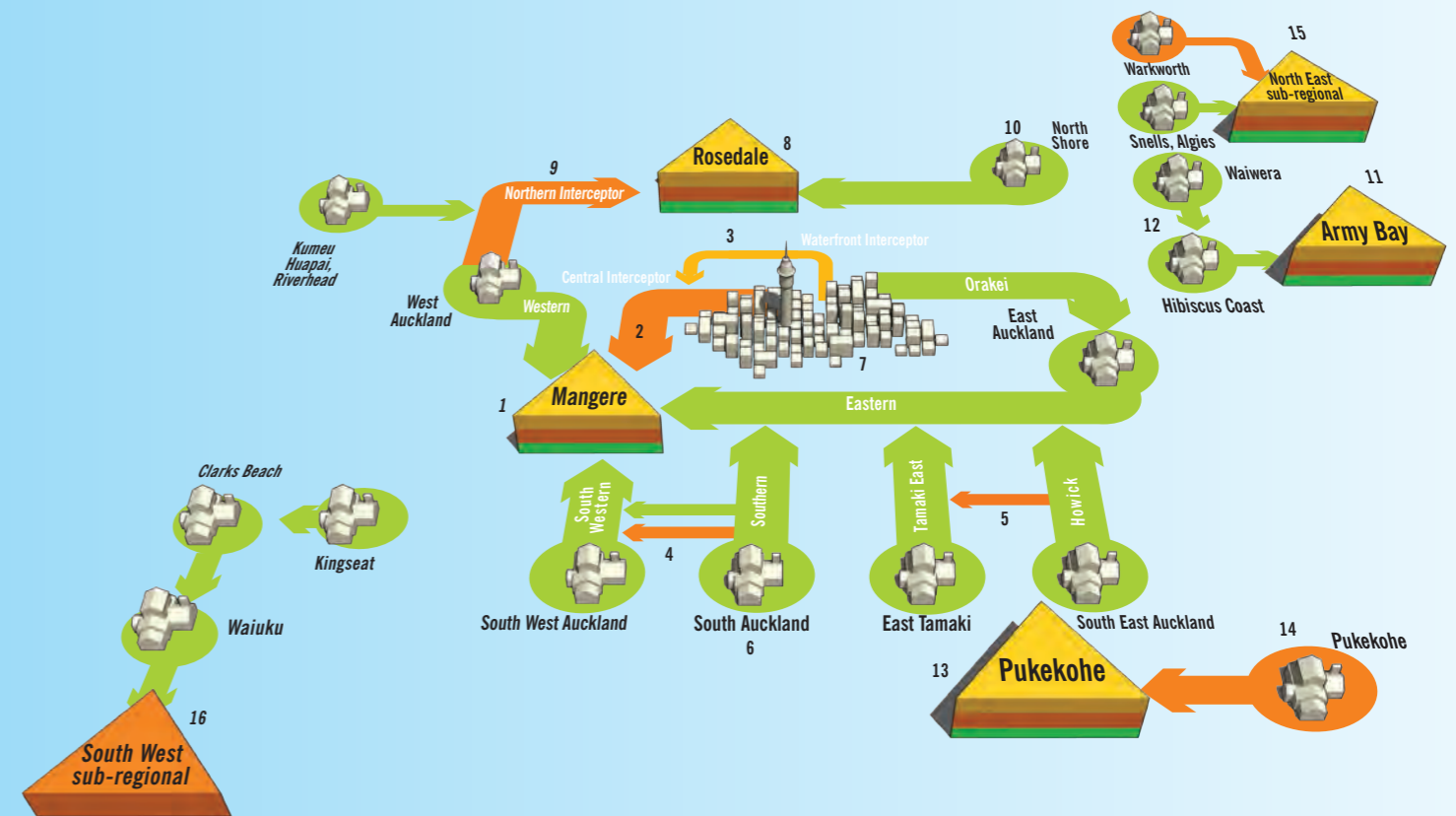
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Plant and network considerations

Through our Network Discharge Consent (NDC) we have authorisation from Auckland Council to allow no more than two wet-weather overflows to occur each year at specific engineered overflow points (EOPs) across the region, excluding combined wastewater and stormwater pipes within central Auckland. This effectively defines our network capacity.

Each treatment plant operates under a resource consent that defines a discharge limit based on the sensitivity of its receiving environment, social and cultural constraints. The consent specifies the allowable peak flow, clarity, bacteria and nutrient levels of the treated wastewater that is discharged to the environment.



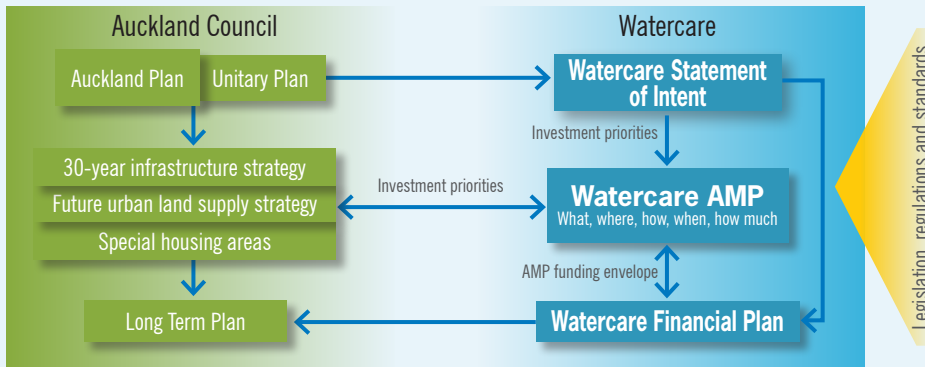
Catchment area	Project description	2017 - 2026	2027 - 2036
Mangere	1 Treatment plant: Biological nutrient removal (BNR) upgrade, additional sludge digestion capacity, solids stream processing upgrades, wet-weather treatment upgrades, consent renewals	\$158m	\$99m
	2 Catchment: Construct Central Interceptor		
	3 Catchment: Construct Waterfront Interceptor		
	4 Catchment: Southern Interceptor augmentation		
	5 Catchment: Construct Howick diversion	\$1291m	\$1125m
	6 Catchment: Upgrade Otara wastewater network		
	7 Catchment: Upgrade Newmarket gully wastewater pipes		
Rosedale	8 Treatment plant: Treatment process upgrades, hydraulic capacity upgrades, consent renewals	\$65m	\$100m
Army Bay	9 Catchment: Construct Northern Interceptor	\$158m	\$162m
	10 Catchment: Upgrade North Shore wastewater network		
Army Bay	11 Treatment plant: Outfall upgrade, treatment process upgrades	\$42m	\$52m
	12 Catchment: Upgrade Army Bay wastewater network	\$5m	\$209m
Pukekohe	13 Treatment plant: Treatment process upgrades	\$52m	\$91m
	14 Catchment: Upgrade Pukekohe wastewater network	\$52m	\$7m
Warkworth, Snells/Algies	15 Treatment plants: Resource consent and construction of a sub-regional wastewater treatment plant and conveyance system	\$112m	\$40m
	16 Treatment plants: Resource consent and construction of a sub-regional wastewater treatment plant and conveyance system	\$76m	
Other programmes	Increasing capacity to support growth	\$140m	\$140m
	Renewing and replacing existing assets	\$574m	\$1001m
	Improving the level of service to our customers	\$36m	\$35m
TOTAL		\$2761m (\$2.8 billion)	\$3061m (\$3.1 billion)

All monetary figures are nominal.

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