

Watercare Services Limited – Quarterly Report

Quarter ended 30 June 2017



Ultrasonic technology trial to monitor and combat blue/green algae in the Lower Nihotupu Lake

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EXECUTIVE SUMMARY

During the quarter, significant progress has been made on improving the sustainable production output of the Ardmore water treatment plant and progressing process improvements

Watercare continued to strengthen engagement with customers and other stakeholders during the reporting period, including developers, and conducted a survey of key commercial customers.

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

Financial Performance

2016/2017 revenue was \$631m. The result was \$52m favourable to budget primarily due to infrastructure growth charge revenue \$9m, vested asset revenue \$41m, new developments revenue \$1m and water & wastewater revenue \$3m. This has been partially offset by other revenue, which is unfavourable \$1.6m mainly due to the reduction in FY16 subvention revenue from Auckland Council.

Price increase

On 1st July 2017, Watercare's prices increased by an average of 2.5% - which equates to a monthly increase of around \$1.75 for average households. Customers were advised of the increase by letter and also the Tapped In newsletter that the increase was necessary to cover increased service delivery costs and the need to invest in infrastructure to cater for Auckland's growing population.

Health & Safety

Watercare has made good improvements in relation to Health & Safety. An updated Health & Safety Plan has been devised for the period 2017 to 2020 setting out Watercare's aspirations and direction for health and safety management. The plan provides a detailed description of programmes planned for 2017-2018, including overall strategic objectives.

Non-Financial Performance

Annual performance against the SOI key performance indicators was positive, with 21 out of the 23 measures being fully met.

Risk Management

As reported in Watercare's last quarterly report, the "Tasman Tempest" storm event in March 2017 saw extraordinary levels of silt in the raw water entering the Ardmore water treatment plant. In addition, other plants, principally Waikato, were impacted. This created a number of challenges for the production of potable water. However, the public supported the initiatives around saving water and customers continued to receive Aa grade water.

Although the raw water quality in the Hunua catchments remains affected, the water treatment protocols are well established and effective, and the production environment is in a steady state.

STRATEGIC PRIORITIES AND FOCUS AREAS DURING THE QUARTER

1. Customer Focus

- We understand our customer needs and deliver value
- We consistently provide exceptional products and services
- We are trusted by our customers who understand our purpose and value our service



1.1 Post “Tasman Tempest” Update

As reported in Watercare’s quarter three report, the “Tasman Tempest” weather event brought extreme rainfall across the region during the quarter (from 7 - 12 March 2017). The weather event impacted significantly on Watercare’s operations, in particular the water supply system. During the quarter, significant progress has been made on improving the sustainable production output of the Ardmore water treatment plant and progressing process improvements given the new source water quality envelope:

- The water quality observed in all of the Southern Water Sources (Mangatangi, Mangatawhiri, Wairoa and Cosseys Reservoirs) has improved over the past 3 months.
- Grass Hydro-seeding of several high risk sites has been completed.
- Seed collection for future Tree Hydro-seeding is underway.
- The Ardmore water treatment plant has been operated reliably up to 295 ML/day. This is a significant achievement given the level of particulate matter entering the water treatment plant.
- Sludge Handling Systems upgrades are underway. The quantity of solids entering the Ardmore water treatment plant remains high, so additional dewatering capacity is required. Temporary, additional sludge dewatering capacity has been installed.
- Concept design for the installation of an additional protozoa barrier in the form of Ultra-violet Light (UV) Dosing is underway.

1.2 Customer Communications Survey

During April, Watercare conducted a survey to seek feedback from key commercial customers regarding the timing and adequacy of Watercare’s communications to them immediately following the “Tasman Tempest” weather event. The feedback indicated that customers responded positively to the communications they received. The frequency of communications was considered appropriate and the content was useful and provided the required information. Customers understood key messages regarding the impact of the weather event and the need to conserve water. Most customers were able to make some water savings and the crisis prompted many to review their business continuity plan. In addition to communications received throughout the water crisis, customers identified that the issuing of a formal ‘closure notice’ would have been useful at the end of the ‘Save 20’ campaign.

1.3 Developer Relationships

Watercare was recently visited by representatives from Chorus who were interested to understand how Watercare manages relationships with the developer community. The visit was prompted by feedback Chorus had received directly from developers, where Watercare was held up as providing a level of service to which Chorus should aspire. Particularly positive feedback from developers related to the establishment of a dedicated role (Key Account and Developer Liaison) to provide a contact point for complex issues as well as the regular information-sharing developer forums.

1.4 Commissioning of Triangle Road Water Pumping Station

Triangle Road Water Pumping Station was installed on the North Harbour No. 1 watermain to increase resilience and meet growth until the North Harbour No.2 watermain is installed (mid 2020s). The station was commissioned on the night of the 24th of June, and involved accelerating flow along the North Harbour No.1 watermain. This had the potential to dislodge iron and manganese from the pipe wall, which may have resulted in dirty water within the network. The potential area of impact could have been up to 60,000 people in West Auckland and the North Shore.

A detailed operating and communications plan was developed to ensure that the impact on its customers was minimised.

1.5 Inflow and Infiltration

Wet-weather overflows occur during periods of heavy rainfall, when the volume of stormwater draining from buildings and roads and entering Watercare pipes exceeds their capacity. When this happens, diluted wastewater can overflow into private properties and the wider environment, polluting properties and Auckland's stream and beaches.

Watercare is in the process of inspecting public and private wastewater pipes across Auckland to reduce stormwater entering the wastewater network from private properties (which is a major contributor to wet-weather overflows). Watercare is also working with Auckland Council to develop and implement strategies to efficiently manage wastewater and stormwater in the long term, accommodating growth and substantially reducing wet-weather overflows.

During the quarter, inflow and infiltration assessments were completed in a number of sewerage catchments across Auckland. Identified defects are notified to the customer for correction and Auckland Council, who have the statutory power to enforce compliance. The assessments in Papatoetoe and Mellons Bay, which are areas with known wet weather overflow issues, have identified approximately 5% of the properties inspected having defects. Resolution of these defects will have a noticeable impact on reducing wet weather overflows.

2. Business Excellence

- We have a safe and engaged team
- We are a commercially-savvy business
- We are responsible stewards of our assets
- We continually strive for process excellence



2.1 Group Insurance

Since March 2017, Watercare has been working with Auckland Council and its CCOs to complete a competitive RFP for insurance broker services, with the aim of combining insurances from the renewal at the 30th of June 2017, to create an all-of-council insurance programme.

This has now been achieved. Watercare worked with Council throughout this process and leveraged its above and below ground loss models to help determine maximum probable losses for natural catastrophes. Insurance cover is now in place for underground assets, which was previously viewed as unaffordable.

Watercare's active engagement in this process has been acknowledged by Auckland Council, and in particular, the valuable input provided by Nigel Toms, Watercare's Risk Manager. Auckland Council also noted that the optimal outcome has been achieved for all parties involved.

Watercare has also worked with Council on an Auckland Council Group Insurance Policy which will ensure that the Council group procures and manages the insurance programme consistently and in the most effective manner for the whole Council group.

2.2 Health & Safety

Watercare has made good improvements in relation to Health & Safety.

As at the 30th of June, Watercare's rolling 12 month lost-time injury frequency rate (LTIFR) was 2.4 per million hours, below the Statement of Intent target maximum of 5.

The total recordable injury frequency rate (TRIFR) was 13.2 per million hours worked (12 month rolling average), below the Statement of Intent target maximum of 20.

A health and safety leadership training programme has been implemented for managers, and is being delivered in conjunction with the EMA. The programme is designed to empower managers with the tools to better respond to health and safety matters.

An updated Health & Safety plan has been devised for the period 2017 to 2020 with detailed programmes planned for 2017-2018.

2.3 Girls in Hi-Viz Event

Watercare, in conjunction with industry ITO Connexis, hosted a Girls with Hi Vis event in June along with other significant employers. The objective was to raise the profile of Watercare's employment brand by showcasing the variety of careers available within Watercare. The broader objective was to encourage women to consider a trade or technical role in the water and infrastructure industry. Women are one of the demographics Watercare is targeting in its recruitment activity.

The event also provided a development opportunity for women employees of Watercare who volunteered to speak about their careers at Watercare.

Watercare reached out to the high schools and colleges around its Mangere wastewater treatment plant and asked staff to invite friends and family members who might be interested. The half day event began with informal networking. It then included presentations on what Watercare does, the learning pathways and on the job training available in the infrastructure industry, followed by one on one interactions with the Watercare team members and their experience of working for Watercare. #BuildAKL and Connexis staff who attended also interviewed several of Watercare's key operational people for subsequent articles. The event was very well received by the attendees and has received positive feedback on social media.



Girls in Hi Viz Event – Mangere WWTP, 15th June 2017



2.4 Business Transformation Programme

As with all businesses, Watercare's external operating environment is changing in a number of ways. The requirement for Watercare to provide efficient and effective service delivery and improve responsiveness to customers has been strongly and consistently signalled by Auckland Council and is a priority for the Watercare Board. Additionally, customer expectations also continue to increase and will continue to accelerate as innovation in the marketplace continues at pace.

In light of the changing operating environment, Watercare has embarked on a business transformation programme, which is focussed on achieving greater customer centricity, driving efficiency, increasing operational resilience and improving business agility. This evolution is being echoed across the water industry internationally with water utilities such as Thames Water and Sydney Water also having instigated significant business transformation programmes. Consideration of the evolution of other water utilities internationally and other utility business, emerging technologies, customer expectations and other key influences has informed the shape of Watercare's business transformation programme.

Part of the Watercare transformation journey is a review of the business operating model. The operating model is the way that the business constructs its capabilities to execute its business strategy. Watercare has engaged Accenture to conduct a strategic review of the enterprise operating model, including consideration of what strategic capabilities are needed, where the capability needs to sit in the business in order to drive maximum efficiency and how it will be sourced. The operating model review will commence in late July and will be completed by the end of September.

In parallel to the operating model review, Watercare will shortly be going to market to source strategic partners to support it in other elements of the business transformation programme. Watercare expects the process for engaging strategic partners to be complete by the end of the 2017 calendar year.

Watercare has also recently trialled robotic process automation technology to automate business processes that are resource-intensive and span multiple business systems. The trial was very successful and Watercare will now move to implement the technology in the production environment by the end of July. This technology presents an exciting opportunity for Watercare to drive further efficiencies across the business.

Watercare continues to engage with the wider Council-family to explore opportunities to leverage investment across the Council Group.

2.5 Esker - reducing paper and increasing productivity by 75%

In May 2017, Watercare launched a new cloud based accounts payable system called Esker. Esker provides an electronic workflow that manages processes surrounding the input and approval of invoices for payment. This is an exciting solution that supports Watercare's sustainability goals. There is no need to print invoices anymore, which is reducing invoice processing, paper usage and costs (34 reams of paper have been saved since May 2017), and has also improved productivity by 75%.

Esker is also helping Watercare provide a better service to our suppliers as invoices are being approved via delegation protocols more efficiently.

Feedback from Watercare's accounts payable team, PO creators, and invoice approvers has been extremely positive as the intended benefits are already being realised.

2.6 Ultrasonic Trial for Control of Algae in Lower Nihotupu Lake

Cyanobacteria have become more prevalent in Auckland's raw water sources since the early 2000s. These are very difficult to manage out of a raw water source once they establish themselves. They release taste and odour compounds into the water, which are difficult and expensive to remove in the treatment process. Even at low concentrations, if they remain in the treatment water, customers will taste these and complain. Lower Nihotupu Lake has typically been the water source most affected by cyanobacteria.

A developing method of controlling cyanobacteria levels in raw water sources is through the use of ultrasonic technology. It works by emitting ultrasonic wave frequencies well above the upper limit of human hearing. These waves cripple the cells by disrupting their gas vesicles, making them less buoyant and causing them to sink. Once they are at depths below which light penetrates the water, the cells will die. This method disables the cells without bursting their cell walls, preventing any release of by-products.

Watercare has been undertaking this trial in conjunction with a supplier based in the Netherlands, since December 2016. There are five solar powered units operating in the Lower Nihotupu Lake, all of which have the ultrasonic units and two have water quality monitoring instrumentation. The data collected by the units is provided in real time to the supplier in the Netherlands from where operational changes are made to improve removal of specific cyanobacteria.

If the ultrasonic trial is successful, this technology will provide significant benefits to Watercare. It will reduce the operational complexity of the addition of Powdered Activated Carbon (PAC), for which the existing Huia water treatment plant processes were never designed to accommodate. This will reduce the risk of water treatment plant outage or capacity constraints. There will be a financial benefit, as the annual cost of dosing PAC at Huia water treatment plant is in the order of \$350k, along with significant laboratory costs associated with sampling when there is an elevated presence of cyanobacteria in the sources.

2.7 Consenting Made Easy

Watercare continues to work closely with Auckland Council on the 'Consenting Made Easy' project to improve process and create efficiencies for development customers.

Consultants and contractors construct local water and wastewater assets on behalf of developers to support new residential and business developments. These new assets are then connected to Watercare's live network and ultimately the ownership of the assets transfers to Watercare.

On the 27th of June 2017, at a Consulting and Contracting Forum, new Compliance Statements were presented to over 100 people from the design and construction industries. The new statements follow a framework similar to IPENZ producer statements, and provide a consistent system for ensuring all work carried out on the water and wastewater network meet engineering standards.

In July 2017, the new Compliance Statements were implemented. They enable contractors and consultants working on Auckland's water and wastewater networks to self-certify themselves and their work. Watercare has already received positive feedback from industry stakeholders, but continues to work with the industry to refine the process. In the coming months, Watercare will also be introducing an online service for contractors and consultants to use, which will improve processing times for new connections.

2.8 Cyber Security

No cyber intrusions were identified during the quarter. However, Watercare remains vigilant and continuously works to update and enhance its cyber security capability and in turn, reduce its risk profile.

3. Fully Sustainable

- We are a socially-responsible business
- We protect and enhance our natural environment
- We meet all our legal and regulatory obligations



3.1 Huia Water Treatment Plant Replacement – Community Engagement

As reported previously, the Huia water treatment plant is over 90 years old and it is required to be replaced with a more advanced and higher capacity facility by 2023. Watercare owns a site opposite the current water treatment plant that is designated for this purpose (Manuka Road). Watercare carried out a comprehensive alternative assessment to determine whether this was the most suitable site to erect and operate the required plant. The last stage of this investigation included a Multi Criteria Analysis of this site and three other sites.

The assessment indicated that two sites, one on Parker Road and the subject site were equal in their suitability. The only factor that distinguished the two was that the Woodlands Road site is designated for water treatment purposes. The designation gave those that live within the locality notice that in the future the site could be developed for a water treatment plant whereas those in Parker Road had not been aware of any potential plant being established in their road.

The Board of Watercare were presented with a recommendation from Watercare and independent technical experts for the preferred location at the May Board meeting. The Board resolved that:

- The preferred site for the replacement Huia water treatment plant be on the Watercare owned Manuka Road site, with reservoirs constructed on the Watercare owned Woodlands Park Road site avoiding wherever possible significant trees and significant ecological effects, undertake off set mitigation, and explore other opportunities set out in Section 7 of the paper;
- The statutory approvals be sought to allow the Huia water treatment plant replacement to proceed by way of application to Auckland Council; and
- Set up a Community Liaison Group or similar and undertake consultation with stakeholders.

During the quarter, a community liaison group (CLG) was formed. The CLG has 15 members made up of interested locals and representatives of interest groups including Forest and Bird, the Tree Council and the Waitakere Ranges Protection Society. The CLG held its first meeting on the 5th of July, and the second is scheduled for the 19th of July.

The next stage involves engaging ecologists and land surveyors to carry out comprehensive ecological and land surveys of the sites. Once this information is obtained, the next step will involve designing the layout of the plant in a manner that minimises the effects of the facility on the surrounding natural and physical environment.

The intention is to lodge the required Outline Plan of Works and resource consents in early 2018.

3.2 Auckland Regional Water Efficiency Strategy

The 2017-20 issue of the Auckland Regional Water Efficiency Strategy – previously known as the Water Demand Management Plan - will be released in August 2017. The document has been structured

around the strategy adopted for each segment of water user (e.g. domestic, non-domestic, Council and CCOs) and specific initiatives e.g. metering, education, and water efficiency services to customers.

The plan will include:

- the non-revenue water strategy and three year programme, including leakage and international benchmarking;
- specific water efficiency initiatives with large water users; and
- a review of the water efficiency gains achieved through Watercare's customer programmes over the past three years, including the deferral of new infrastructure since 2004 (the baseline year for per capita reduction).

The Statement of Intent performance measures for real losses and demand management are based on percentages (percentage of real water loss and percentage reduction in per capita consumption). The use of percentages is no longer considered suitable by many international organisations including International Water Association (IWA) and Water Services Association of Australasia (WSAA). Volume-based KPIs provide a more targeted and accurate understanding of actual performance and impacts. The plan will recommend a portfolio of performance measures to complement the current performance measures.

3.3 Watercare's Auckland-wide Wastewater Network Discharge Consent

Watercare's Auckland-wide Wastewater Network Discharge Consent (NDC) was granted in June 2014 for a term of 35 years. It authorises the discharge of wastewater from existing and identified future public wastewater networks to land, freshwater and coastal receiving environments during times of dry and wet weather flow. The Wastewater Network Strategy (WWNS) is the key compliance mechanism of this consent, and is required to be updated and re-submitted every six years. The WWNS describes:

- The current performance of the network, and changes to wet weather overflow frequencies from completed projects and new information;
- The principles underpinning prioritisation of future works;
- The works proposed to be undertaken in the next six years and beyond, and the outcomes expected; and
- The consultation undertaken during the development of the WWNS.

The WWNS is aligned to the Asset Management Plan and will guide capital and operational investment so that Auckland's wastewater is managed and treated to protect public health and the environment, in accordance with community and cultural aspirations. The work described over the coming six years is predominately projects that are already approved. Over the next 20 years, Watercare proposes to invest in the order of \$3 billion in wastewater networks to improve performance and service growth. This is the first WWNS that has been prepared by Watercare and is required to be submitted to Auckland Council by 30th of June.

3.4 SafeSwim Programme

Auckland Council has commenced the development of a SafeSwim forecast model for implementation by the 1st of November 2017. Watercare is providing specific input and working with Council on the programme.

Auckland Council currently has a weekly water quality monitoring programme for selected Auckland bathing beaches, which operates between November and March. The programme was designed to comply with the Ministry of Health Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas to provide the public with information on the quality of the bathing beach. The information is then made available on the Council's website.

Whilst compliant with the relevant Guidelines, a review of the programme identified a number of limitations, this included the results being published 24 hours after the sample was taken, and therefore not providing a true reflection on the real quality of the water. In order to provide a better real time view, a trial of the SafeSwim forecast model is being developed which will provide live predictions on the quality of the water across the selected bathing beaches. The trial will initially focus on the bathing beaches along the Waitemata, from Point Chevalier to St Heliers.

The model will be calibrated using real event based samples taken from the bathing beach areas. The aim is to have the model available via a phone app and the Auckland Council website. This may also extend to signage at specific locations.

Watercare's current focus is to ensure the quality and validity of all Watercare data into the model.

HIGHLIGHTS FOR THE LAST QUARTER

1. 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 2016/17 financial year. These measures are consistent with the measures within the Watercare Statement of Intent 2016-2019. Of the 23 measures, 21 were fully met. Two measures were not met, namely:

- The average number of wet-weather overflows for the transmission network per discharge location. This was 3.41, which is above the target of two or fewer overflows. The significant increase of overflows for the 2016/17 year was due to extreme wet weather, especially during the months of March and April (Tasman Tempest). Wet weather overflows are very dependent on the frequency, intensity and duration of rain events. With the improvements to the network through network upgrades, increased storage capacity, and Inflow & Infiltration reduction, the number of overflows should decrease. If the weather over the next 12 months is normal, the overflow number should stabilise. Also, as extreme wet weather events are natural occurrences, it is not feasible to meet the target consistently.
- The percentage of the 19 Iwi groups throughout Auckland that Watercare has entered into a Memorandum of Understanding (MoU) with. Watercare continues to maintain strong relationships with the Iwi groups throughout Auckland, and the level of engagement with the 19 Iwi groups is significant, including bi-monthly meeting with the Mana Whenua Kaitiaki Managers Group. The MoU records our relationships with the Iwi groups and articulates the objectives that Watercare and Iwi wish to realise through its engagement and outlines the engagement approach. Watercare signed MoUs with three Iwi groups in 2016/17, which equates to 16% against a target of 60%. Previously, Watercare has signed MoU's with Waikato Tainui and Te Akitai. Also Watercare is in the process of refreshing the MoU with Ngati Whatua o Orakei. Efforts to finalise agreements with the remaining Iwi groups are well advanced.

2. Australasian Reporting Awards

Watercare received a Gold Award, and the Chairman's commendation for sustained excellence in reporting award (one of only three organisations), at the Australasian Reporting Awards for the 2016 Watercare Annual Report. The Chairman's commendation for sustained excellence in reporting award recognises organisations who have achieved more than ten consecutive Gold Awards through to 2017. The Australasian Reporting Awards are designed to enable organisations to benchmark the quality of their annual reports against criteria based on world best practice. Organisations receive a Gold, Silver or Bronze Award (or no award at all) depending on the extent to which they satisfy the Australasian Reporting Awards criteria. Reports that achieve a Gold Award satisfy all of the criteria and should be model reports for other organisations to follow.



Julian Stewart and Raveen Jaduram proudly receive the 2017 ARA Gold Award

3. Section 17A Reviews

During the quarter, Watercare has been working with the Value for Money team at Auckland Council to assist with the section 17A reviews. Various meetings and workshops have been held so Watercare can share information with the Value for Money team regarding the water and wastewater services provided by Watercare.

4. Strategic consents

During the quarter, the following progress was made in relation to Watercare's strategic consents:

- Watercare was successfully granted consents in May from the Environment Court in relation to the construction of the Pukekohe East Reservoirs. A Hearing date has been requested (9 October) for the Southwest Sub-Regional Wastewater Servicing Project – Clarks Beach, Kingseat and Waiuku wastewater treatment plants.
- Additional consents were lodged for the Central Interceptor in June 2017 with the Auckland Council.
- An amended Pukekohe Wastewater treatment plant Assessment of Environment Effects was lodged in October 2016, and eight submissions were received. A Hearing date is expected in August 2017.
- The Wellsford Wastewater treatment plant discharge consent was lodged in February 2017, and five submissions were received. Auckland Council issued a s.92, which is expected to be responded to in July.
- The existing consents for the Waiuku Ground Water Supply were granted in 2012, however due to growth, new consent applications were lodged, in September 2015. Draft conditions are currently being reviewed, and expected to be granted in July 2017.
- Consents were granted for the Albany Pinehill Watermain and Pump Station in June 2017.
- Watercare is currently preparing consent applications for the Huia 1 Watermain Replacement (Titirangi to Epsom).
- The original 200ML/d Assessment of Environment Effects ("AEE") for the Waikato River Future Take is currently being reviewed, and an updated AEE will be completed by September 2017.

5. Statement of Intent

Watercare incorporated Auckland Council's comments into its Statement of Intent for 2017-2020. Watercare's final Statement of Intent for 2017/2020 was submitted to Auckland Council on the 30th June 2017.

6. Urban Development Authorities

As reported previously, during February 2017, the Government released the "Urban Development Authorities – Discussion Document" which empowers nationally or locally significant urban development projects to access more enabling development powers and land use rules. During the quarter, Watercare met with Auckland Council, Auckland Transport and the Ministry of Business, Innovation and Employment to review the discussion document, and to prepare submissions that were filed during the quarter.

7. Local Government 2002 Amendment Bill (No 2)

Watercare and Auckland Council continued to work together, along with DIA, throughout the quarter in relation to this Bill. During the quarter, Auckland Council and Watercare worked together to resolve various issues, which resulted in an excellent outcome.

8. Western Isthmus Water Quality Improvement Programme

During the quarter, Watercare and Auckland Council continued to work together to progress the Western Isthmus Water Quality Improvement Programme. Options are being developed to effectively provide stormwater and wastewater services in the Western Isthmus area so that adequate provision is made in the Long Term Plan and also that Aucklanders are aware of the programme of works to address water quality issues (including the SafeSwim programme).

A workshop with the Council Governing Body and Watercare Board is planned for the 20th of September to discuss the options and recommendations.

FUTURE OUTLOOK

1. Housing Infrastructure Fund (HIF)

In early July, the Government announced the outcome of the HIF proposal process. Auckland Council was awarded \$300m of the \$370m proposed for in relation to the North West area (Redhills and Whenuapai).

The Chief Executive spoke at the announcement which was held at the Mangere Wastewater treatment plant, along with the Mayor and the Finance Minister, Steven Joyce.

2. Mayoral Housing Taskforce

The Office of the Mayor of Auckland sent the final report of the Mayoral Housing Taskforce during the quarter. Watercare will work with Auckland Council, Auckland Transport and other relevant agencies to give effect to the report.

3. Section 17A Review – Three Waters

Over the next quarter, Watercare will continue to work with Auckland Council's "Value for Money" team, who are conducting a "Three Waters" review into Auckland's water, wastewater and stormwater systems. Auckland Council's final report will be released at the end of September 2017.

4. Tapped In

In July 2017, domestic and non-domestic customers will receive the winter issue of Tapped In. The primary focus will be on educating customers on how to avoid blockages in their pipes by correctly disposing of wet wipe products and the consequences of blockages on private property – cost to fix the issue, damage to property and risk to health.

This ties into a media campaign that will run at the same time, and also reiterates price changes.

5. Strategic Consents

Huia water treatment plant: As noted above, progress will be made on the Huia water treatment plant Replacement project. The preferred location is the Manuka Road site, which is owned by Watercare and designated for water supply purposes. The newly established Community Liaison Group will be provided with an opportunity for involvement in the detailed ecological study for the site and heritage and recreational impacts of the project. It is hoped that by involving the community representatives early and fully, this will limit the submissions on the necessary resource consents, which will be lodged in early 2018.

Pukekohe & South West Regional Wastewater Treatment: Evidence will be finalised for both the Pukekohe and South West Regional Wastewater treatment plants. Consultation with submitters will continue up until the hearings.

Waikato River Take: Close consultation will continue with Waikato Regional Council in advance of a hearing for the Waikato River Future Take, which is anticipated during 2018.

6. Implementation of Water Efficiency Strategy

As discussed above, the Auckland Regional Water Efficiency Strategy will be released in August 2017. Accordingly, Watercare will continue to work with Auckland Council and the Council Group to finalise the strategy over the next quarter.

7. Water Authority of Fiji Government

The Watercare liaison programme, with the Water Authority of Fiji (WAF), is continuing. A number of further visits by WAF staff are being arranged in coming months to assist them with the development of key business areas. WAF have problems with algal bloom in a key lake and their CEO is keen to review Watercare's ultrasonic algal bloom control trial, which is currently underway at the Lower Nihotupu Lake.

8. Pipeline of work

Every six months Watercare issues to the market, via the website, a detailed Forward Works Programme. This programme informs the market of the next three years of infrastructure projects over \$2million, enabling the consultant and contracting providers to plan for upcoming tenders and delivery of works. The programme provides project names, a short description of the works, dollar value range, plus the planning, design and execution timing of each project.

The consultant and contractor market have been positive regarding the level of detail and the benefit this regularly updated programme is providing to them.

INFRASTRUCTURE PROJECT UPDATES

1. Hunua No. 4 Watermain

Section 11 of the Hunua no 4 watermain is the last section of a watermain stretching 31km from Redoubt Road to the Khyber Pass Road reservoirs. The route is challenging and runs along Manukau Road, SH1 and Khyber Pass Road. To minimise disruption along these roads, construction will be undertaken by tunnelling. The design of section 11 is progressing and detailed planning for further geotechnical investigations and contamination testing is complete. Consultation with stakeholders and landowners has begun and negotiations are ongoing with AMA/NZTA regarding access to the motorway corridor for the tunnel. Construction is planned to commence in June 2018 and be completed by June 2020.

2. Army Bay Wastewater Treatment Plant Outfall Replacement and UV Plant Upgrade

The contract for the upgrade of the Army Bay WWTP Outfall and UV Plant Upgrade has been let. This project will increase the outfall capacity of the plant from the current 300l/s to 1900l/s catering for growth in the Hibiscus Coast area. Tenders were sought from two pre-qualified contractors, with expertise in coastal marine pipelines, who had been involved in an early contractor involvement process. The design build solution will see a new trenchless technology, direct pipe, being introduced into the New Zealand market. This provides further endorsement of the approach of seeking market innovation in areas where construction techniques can add significant value and influence to the overall outcome of the project. Construction is expected to commence late in 2017, following the approval of the design, with overall completion in December 2018.

3. Wairau Eastern Rising Main

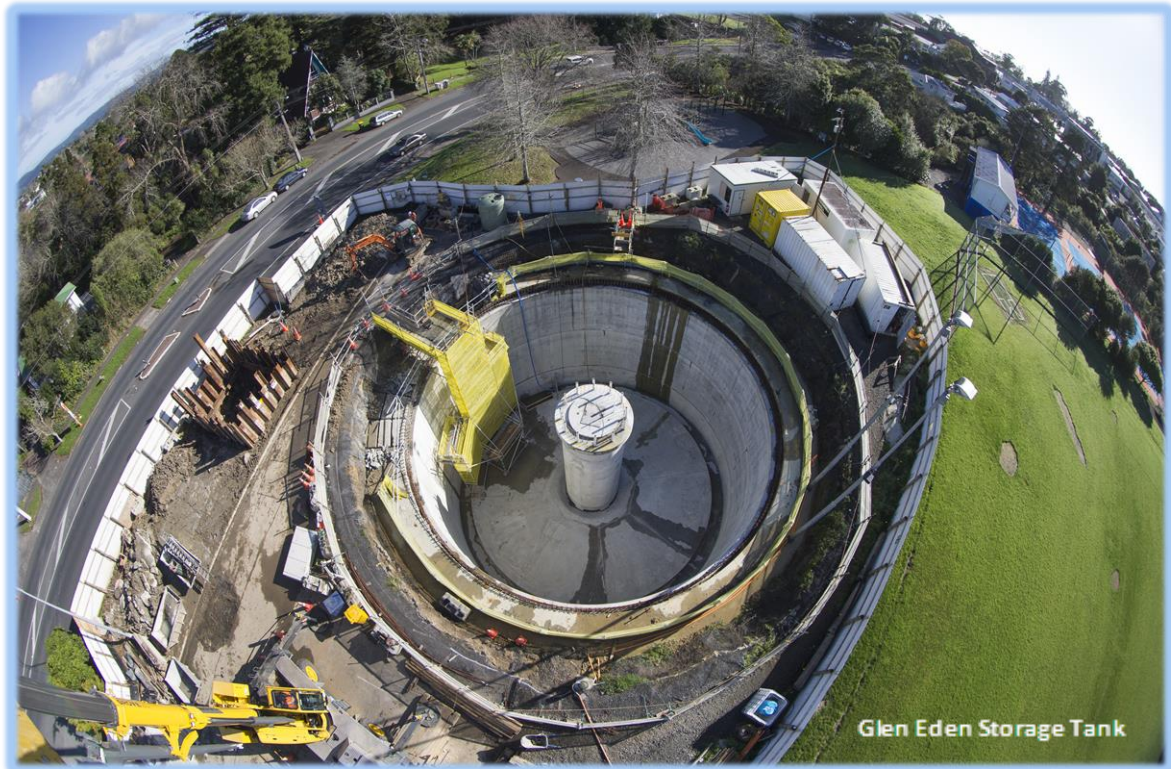
The contract for the replacement of the Wairau Eastern Rising Main section along Wairau Road has been let. This project provides a duplicate rising main from the Wairau Wastewater Pump Station. The contractor will utilise a trenchless technology, pipe jacking, for the majority of the route to minimise disruption along this heavily trafficked corridor. The tunnelling machine and GRP pipes for this project have been received. Resource consent variation was approved and the construction on site is due to commence in mid-July. Overall completion is now scheduled for October 2018.

4. Pukekohe Trunk Sewer

This trunk sewer is being upgraded to accommodate growth in the area and reduce overflows. The construction is progressing well with the Pukekohe and Buckland Pump stations, the Pukekohe trunk sewer and the Buckland rising main heading towards completion in the third quarter of this year. While there has been considerable work on the local roads, the construction works impacting Buckland Road and Parker Lane Rd have mostly been completed, with only minor localised works now remaining in the roads.

5. Upper Glen Eden Storage Tank and Branch Sewer Upgrade

This new storage tank and sewer upgrade is to accommodate growth and reduce overflows. The placement of the roof beams on the storage tank is nearing completion. The construction of the associated pipelines are underway but poor ground conditions are hampering progress. The works are scheduled to be completed by the end of the year.



6. Collingwood and Franklin Road Wastewater and Stormwater Sewer Separation and water supply renewal

This project involved the installation of new water mains for Franklin Road and wastewater separation in Franklin Road and Collingwood Road. The wastewater and storm water separation is a joint project with Auckland Council Healthy Waters, funded 50/50 by Watercare and Healthy Waters and involves the targeted wastewater and storm water separation works for 76 properties. This project will be completed in September 2017.

In addition to the water, wastewater and storm water upgrades, other infrastructure asset owners (Auckland Transport, Vector and Chorus) are concurrently upgrading assets in these roads. All parties are successfully working together in a collaborative fashion to ensure this project is a success for the home owners and the local community.

In June 2017, Brian Perry Civil, Watercare's contractor on this project, won the annual Civil Contractors New Zealand Hynds Construction Excellence Award.



From left: Construction manager Tim Munro, project manager Veluppillai Thavarajah, Brian Perry Auckland water network manager Raj Pushpagadan and Auckland branch manager Matthew Findlay with the award.

7. North Harbour 2 Watermain and Northern Interceptor

The designation for future phases of the Northern Interceptor was approved in April 2017. This completes the protection of the route for the entire project. The Northern Interceptor will cater for growth in the area and enable wastewater flows which otherwise go to the Mangere Wastewater treatment plant to be directed to the Rosedale Wastewater treatment plant. The resource consents for the future works will be completed nearer the time of construction which is phased over several decades. Phase 1 is currently in tender stage, with construction estimated to commence in mid-2018.

The resource consents for the North Harbour 2 Watermain were granted in January, and with the already consented Greenhithe Bridge Watermain Duplication, secure the consents for the entire 33km route of this pipeline. The opportunity is being taken to advance works to avoid impact with other developments in the Hobsonville and Schnapper Rock areas. Close co-operation continues with other major infrastructure projects which are being undertaken at Westgate, Hobsonville and the Northern Corridor. The Greenhithe Bridge Watermain Duplication project is currently in tender stage, with construction also estimated to begin in mid-2018.

8. Wynyard Quarter Pump Station and Rising Main

The Wynyard Quarter pump station and rising main will provide additional wastewater capacity to service new residential and commercial developments in the area. Construction of the pump station commenced in November 2016. Secant piling for the wet well/storage tank is complete and excavation and concrete lining is in progress. Concrete for the first lift of the walls of the control building was poured in late June. The rising main is being constructed in stages. It is complete in Pakenham St West, and in Halsey St from Pakenham to the middle of Fanshawe St. Construction in Halsey St, south of Fanshawe St, commenced mid-June and is scheduled to be complete by October 2017. The whole scheme is expected to be commissioned by the end of 2017.



9. Warkworth Wells Water Treatment Plant

This project aims to provide a new source of water and associated treatment plant due to population growth projections and pressure on surface water supply in Warkworth. The contractor is established on site, and early works are underway. The structural and mechanical construction is planned to start in August 2017, following the receipt of associated building consent. The new water treatment plant is expected to be operational in early 2018.

FINANCIAL RESPONSIBILITY

- We are a minimum-cost service provider
- We are financially stable over the long term



Financial Performance

\$'m	FY17 Q4 YTD Actual	FY17 Q4 YTD Budget	Variance YTD Favourable/ (unfavourable)
Operational			
Revenue	631	579	52
Expenditure excluding depreciation	294	296	2
Depreciation and amortisation	228	227	(1)
Capital Expenditure	300	329	29
Net borrowings - AC	1,302	1,323	21
Net borrowings - External	302	304	2

Revenue

2016/17 revenue was \$631m. The result was \$52m favourable to budget primarily due to infrastructure growth charge revenue favourable \$9m, vested asset revenue favourable \$41m, new developments revenue favourable \$1m and water & wastewater revenue favourable \$3m. This has been partially offset by other revenue, which is unfavourable \$1.6m mainly due to the reduction in FY16 subvention revenue from Auckland Council.

Expenditure

Operating expenses were \$294m, \$2m favourable to budget with favourable variances for asset operating costs and general overheads. These were partially offset by higher labour costs, maintenance and professional services.

Interest expense was \$0.1m unfavourable as a result of lower capitalised interest due to capital expenditure being beneath budget.

Depreciation and amortisation

Depreciation and amortisation was \$1.3m unfavourable mainly due to accelerated depreciation on assets identified for disposal.

Capital expenditure

Capital expenditure was under budget by \$29m (9%) due primarily to:

- Timing delays as a result of extended contract negotiations, further assessment of alternate construction methodologies, and dependencies on other projects;
- Delays to projects in construction primarily due to the weather events during the period significantly impacting on operations which resulted in delays to planned shut downs and required resources to be re-allocated to priority operational issues. Additionally, some

projects have been affected by wet weather events which have had an impact on the rate of construction; and

- Project efficiencies identified which have reduced forecast spend including the Rosedale Expansion project.

The delays in the project implementation have not adversely impacted on Watercare's ability to provide services or in its overall risk profile.

Borrowings

Net borrowings were \$23m below budget due primarily to lower capital expenditure.

Water Utility Consumer Assistance Trust (WUCAT)

When the Trust approves hardship relief, it enters into an understanding with the customer as to how the customer will "earn" the relief. Often 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.

The details of the results of the Trust and the WUCAT meetings held during the quarter are set out in Appendix A.

PERFORMANCE MEASURES

Measure	2016/17 Target	Apr 2017	May 2017	Jun 2017
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	3.41
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	41 mins	41 mins	41 mins
Median response time for resolution of 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	≤ 5 hours	2.9 hours	2.8 hours	2.8 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	1.0 days	1.0 days	1.0 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	2.1 days	2.0 days	2.1 days
Percentage of customers surveyed satisfied with Watercare's delivery of water and wastewater services	≥80%	82.2%	82.4%	82.4%
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	5.9	5.7	5.6

Measure	2016/17 Target	Apr 2017	May 2017	Jun 2017
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	50 mins	50 mins	50 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	3.2 hours	3.2 hours	3.2 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	24.5	24.4	24.1
Percentage of complaints being 'closed and resolved' within 10 working days (12 month rolling average)	≥95%	97.6%	97.9%	98.1%
Percentage of the 19 Iwi groups throughout Auckland that Watercare have entered into a Memorandum of Understanding with (target for end of FY16/17)	≥60%	Annual Measure	Annual Measure	16%
Lost-time injury frequency rate per million hours worked (12 month rolling average)	≤5	2.42	2.41	2.4
Percentage of voluntary leavers relative to number of permanent staff (12 month rolling average)	≤12%	10.76%	11.15%	12%
Total recordable injury frequency rate per million hours worked (12 month rolling average)	<20	10.9	12.06	13.2
Minimum funds flow from operations to interest cover (FFO) before any price adjustment	≥2.5	3.92	3.91	3.94
Percentage of household expenditure on water supply services relative to the average household income	≤1.5%	0.87%	0.86%	0.86%
The average consumption of drinking water per day per resident (gross PCC) (12 month rolling average)	272 + / - 2.5%	272	272	273
The percentage of real water loss from the local authority's networked reticulation system (rolling 12 month average)	≤13%	11.9	Two-month lag on data sourced from meter readings	Two-month lag on data sourced from meter readings

CONTRIBUTION TO MĀORI OUTCOMES

During the quarter the focus continues to be on formalising and re-invigorating friendship relationships and engagement with the 19 mana whenua entities by the preparation and making contact with those mana whenua who do not have a formal relationship agreement with Watercare.

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>MO3 Rangatiratanga self-determination</p> <p>MO4 Te Tiriti o Waitangi/the Treaty of Waitangi</p> <p>MO7 Mātauranga Māori – Māori knowledge wisdom</p> <p>MO8 Mana Whenua – customary authority</p>	<p>Currently the Mana Whenua Kaitiaki Manager’s Group meets bi-monthly. The recent focus of meetings has been on continued education regarding Watercare operations and projects, with particular emphasis on the Manukau Harbour.</p> <p>During the quarter, a wide range of activities occurred including various meetings with the Chief Executive and senior management at Watercare. There is ongoing engagement regarding Resource Management Act consent consultations. A site blessing was held at the site for the Warkworth water treatment plant.</p>	\$58,405
<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 performance of water and wastewater infrastructure</p>	<p>MO1 Kaitiakitanga – guardianship including stewardship</p> <p>MO2 Mātauranga Māori – Māori knowledge wisdom</p> <p>Waahi tapu –sacred ancestral sites and places of significance to iwi, hapū and whānau</p> <p>MO7 Mātauranga Māori – Māori knowledge wisdom</p>	<p>Significant engagement continued through the quarter with local Mana Whenua in respect of current consent applications for the Pukekohe wastewater treatment plant upgrade and the proposed discharge for the south-west sub-regional wastewater treatment plant at Clarks Beach, Waiuku. The MWKF-Watercare Kaitiaki Managers Group continued to advance their understanding of the technical performance of Mangere Wastewater treatment plant and compact membrane technology wastewater treatment plants, both of which utilise UV to improve the quality of treated wastewater.</p>	\$259,142

KEY LOCAL BOARD ISSUES

During the quarter, Watercare's winter edition of 'Tapped In' was sent to Local Board members and Councillors. The newsletter included information on being aware of what you put down your toilet to avoid blockages and overflows. Material was also sent as a JPG file so members could share the information via social media.

Watercare's latest "Your Source" staff newsletter was shared with the local boards and local board services staff. The newsletter provided interesting information on the response to the Tasman Tempest weather event and other interesting facts about Watercare staff and the business. Good feedback was received on the quality of the production.

The Watercare price increase was shared with the Councillors and Local Board members prior to announcement in the media.

Local Board plans have been reviewed for information relevant to Watercare. The information has been shared with the relevant managers across the business.

During the quarter, Watercare continuously kept the Waitakere Ranges Local Board updated in relation to the replacement of the Huia water treatment plant. This included a briefing after the Watercare Board's decision to select Manuka Road, Waima as the preferred location. Following the first Community Liaison Group Meeting which was held on the 5th of July, Watercare also provided updates to the Local Board. Information was also shared on discussions related to the Nihotupu Filter Station. This information was also shared with the Western Councillors and the Mayor's Office.

Good news was shared with the Mangere Otahuhu Local Board regarding the Central Interceptor design team's ability to remove the Kiwi Esplanade access and vent shaft from the detailed design. Watercare worked with the Local Board to communicate this to the Mangere community.

The Rodney Local Board chair attended a site blessing for the start of construction at the new Warkworth water treatment plant. The Rodney Local Board was also briefed on the Wellsford water and wastewater treatment plant consent renewals.

Information was shared with the Howick Local Board on the inflow inspections underway in Mellons Bay. Local Board representatives also visited the site as part of a media briefing on the work underway to smoke test drains for illegal or faulty connections. The findings of the inspections were shared with the Local Board and media. Similar inspections are now underway in Te Atatu and the Local Board has also been invited to join the crew and local media on site.

Franklin Local Board Chair and deputy chair joined Councillor Cashmore for a photo opportunity to include on the cover of a 'Franklin Matters' newsletter. The Franklin Local Board also received a presentation on Watercare's response to growth. Deputy Chair Andrew Baker also referenced this material in a local newspaper column "Watercare's funding not to be sniffed at".

Western and Northern Local Boards were notified in advance of the Triangle Road Pump Station commissioning. Switching on the pump station had the potential to cause widespread discoloured water complaints. The commission was completed without incident.

Project updates were sent to the Waitemata Local Board ahead of construction works in Halsey Street.

Watercare continued to work with NZTA and Auckland Council on the Northern Corridor Improvements project resulting in the Local Board decision on community leases in favour of the project. This was an important milestone in the works affecting not only NZTA but also Auckland Council and Watercare. The process involved excellent collaboration among the Auckland Council group and NZTA.

QUARTERLY RISK MANAGEMENT UPDATE

Risk Management Governance

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 reporting period. 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 continuous disclosure. There were no such events during the reporting period.

Appendix A – WUCAT and Restrictions

Summary for the Water Utility Consumer Assistance Trust since 2011/12 start		
Financial year	Trust approved applications (includes WSL additional write offs)	\$000's
June 2012	33	\$29
June 2013	172	\$196
June 2014	123	\$114
June 2015	150	\$149
June 2016	118	\$90
(YTD) June 2017	115	\$97
Total	711	\$675

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
711	539	85	87

Amount of Relief Approved \$	Amount of Relief Fully Earned \$	Relief Yet to be Fully Earned \$	Relief Voided due to Lapsed Unfulfilled Arrangement \$
\$675	\$546	\$69K	\$60k

The results of the last 3 WUCAT meetings have seen 35 applicants successfully complete the budget process and have \$30k of hardship relief approved by the Trust.

WUCAT Summary last 3 meetings		
Month	Trust approved applications	\$000's
April 2017	13	\$16
May 2017	13	\$8
June 2017	9	\$6
Total	35	\$30

Restrictions

The status of restrictions as at the 30th of June 2017 was as follows:

Restriction Summary Year ending	Commercial		Residential		Total	
	Restriction	De-restriction	Restriction	De-restriction	Restriction	De-restriction
30 June 2012	1		5		6	0
30 June 2013	13	11	6	4	19	15
30 June 2014	20	20	17	14	37	34
30 June 2015	31	30	53	39	84	69
30 June 2016	8	9	16	17	24	26
(YTD) 30 June 2017	15	11	19	13	34	24
TOTAL	88	81	116	87	204	168
Restrictions Currently	7		29		36	