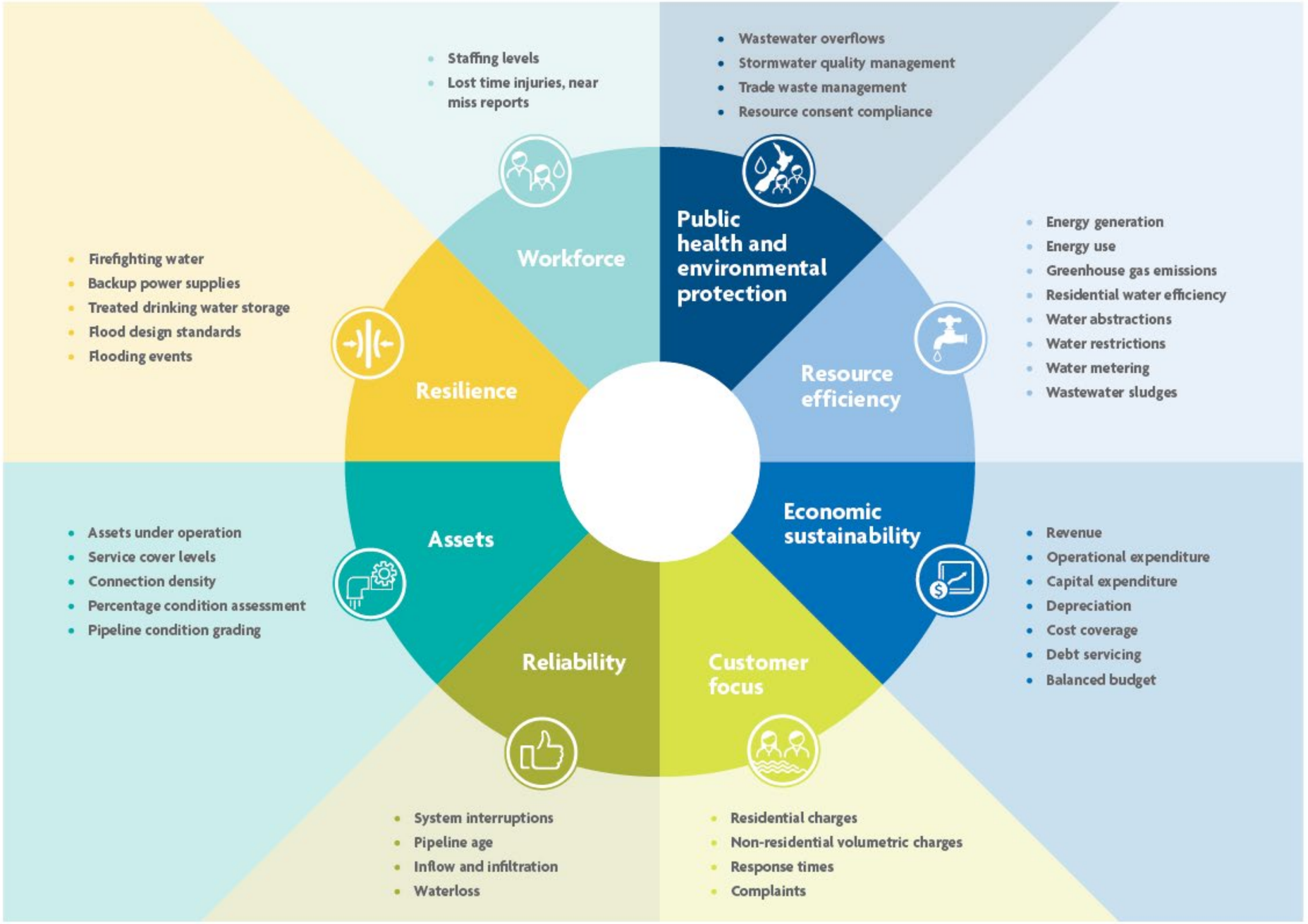

water
NEW ZEALAND
The New Zealand Water & Wastes Association Waiora Aotearoa
National Performance Review
2020
2021

Outline

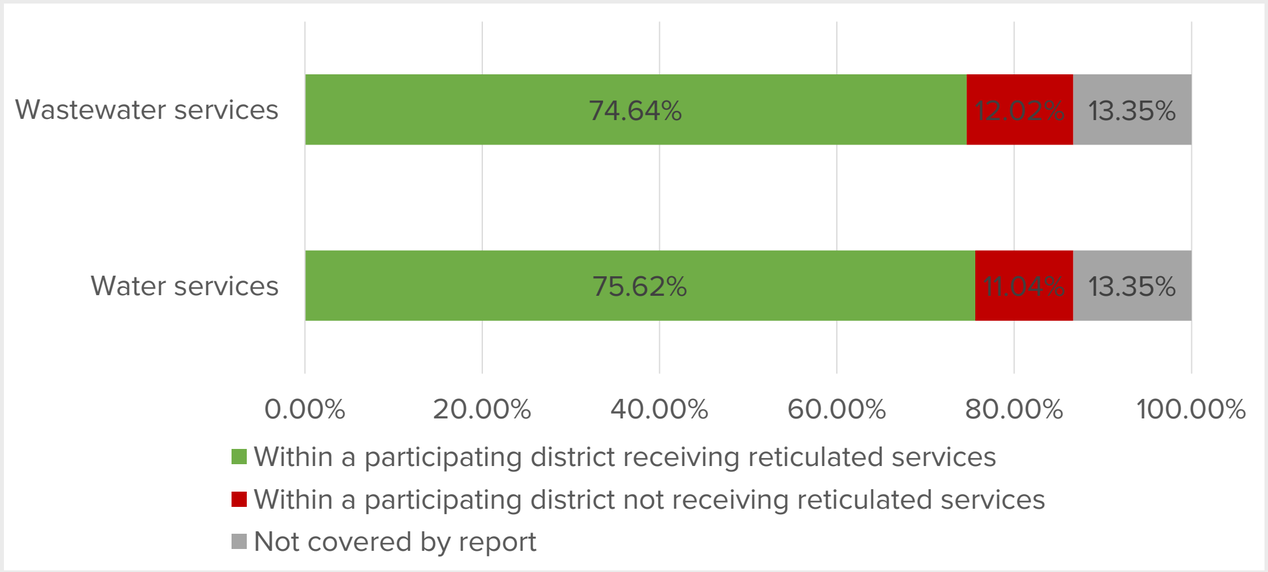
- Performance measure categories
- Participation & coverage
- Wastewater overflows
- Stormwater quality management
- Water consumption
- A growing sector
- Service delivery pressures
- Revenue & expenditure v depreciation
- Water charge variation
- Fire hydrant testing
- Circular economy opportunities
- Future years

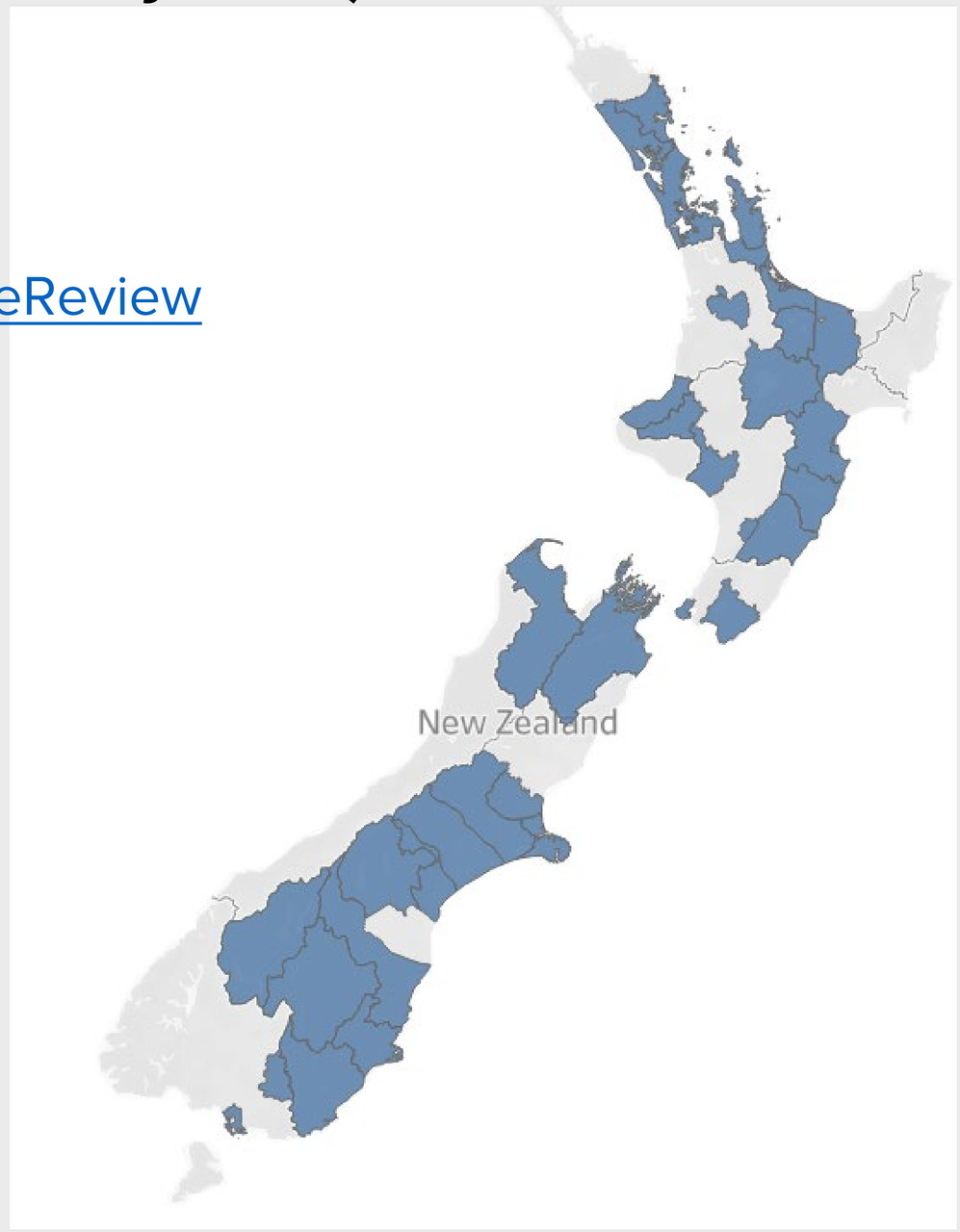
Performance measures



Participation and coverage (June 2020-July 2021)

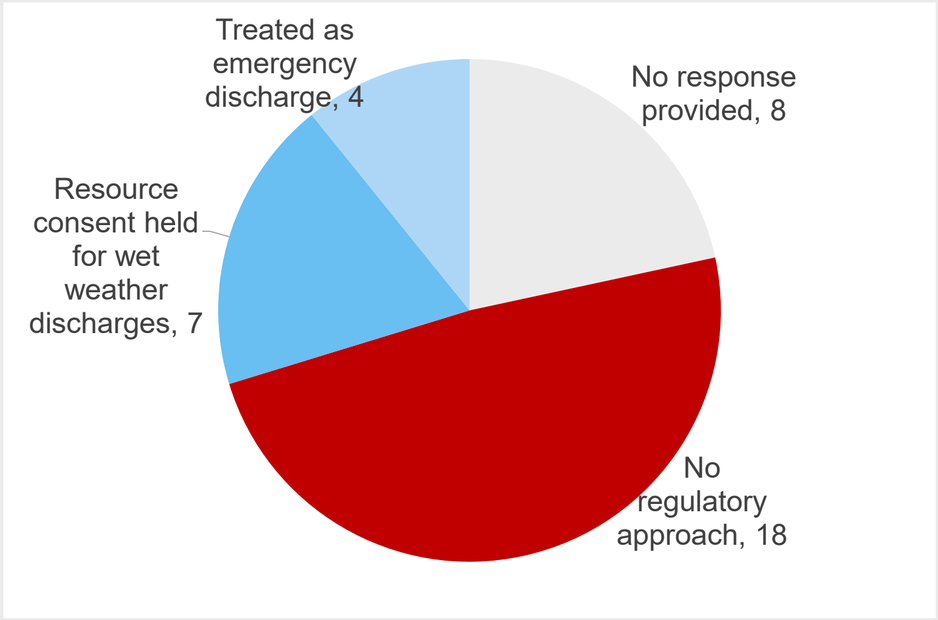
https://www.waternz.org.nz/NationalPerformanceReview





Wastewater overflows

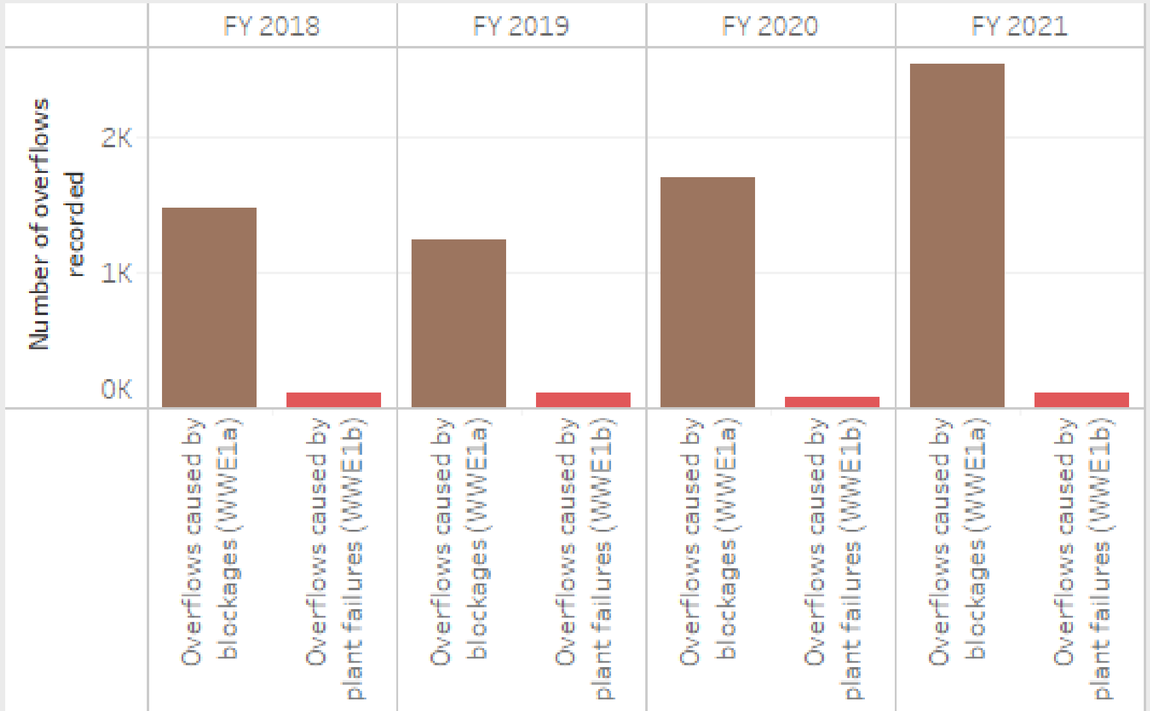
Consenting approaches for wet weather overflows



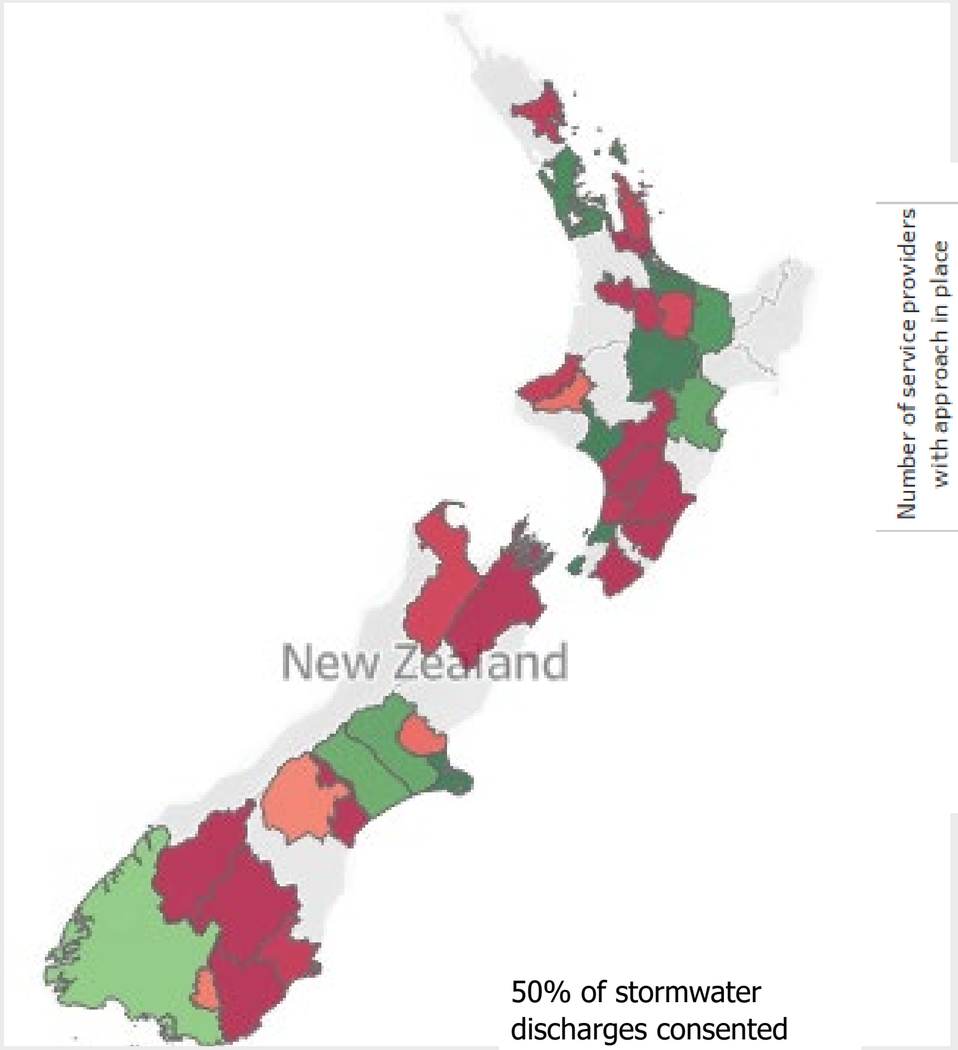
Number of wastewater overflows by cause

Overflows by cause	FY 2021
Total dry-weather wastewater overflows (WWE1)	2,754
Overflows caused by blockages (WWE1a)	2,630
Overflows caused by plant failures (WWE1b)	119
Wet-weather overflows from the wastewater network (WWE2a)	1,159
Wet-weather overflows from combined stormwater and wastewater networks (WWE2b)	355

Dry weather overflows



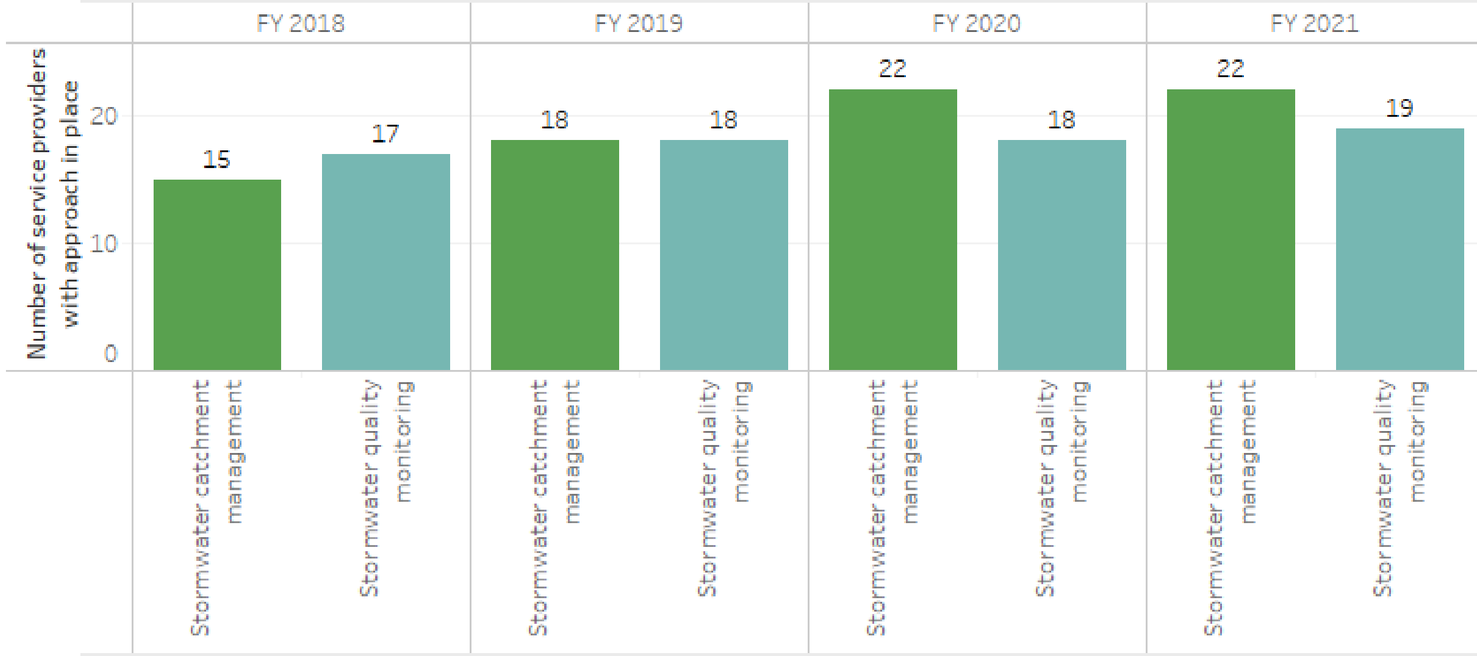
Stormwater quality management



No stormwater discharges consented

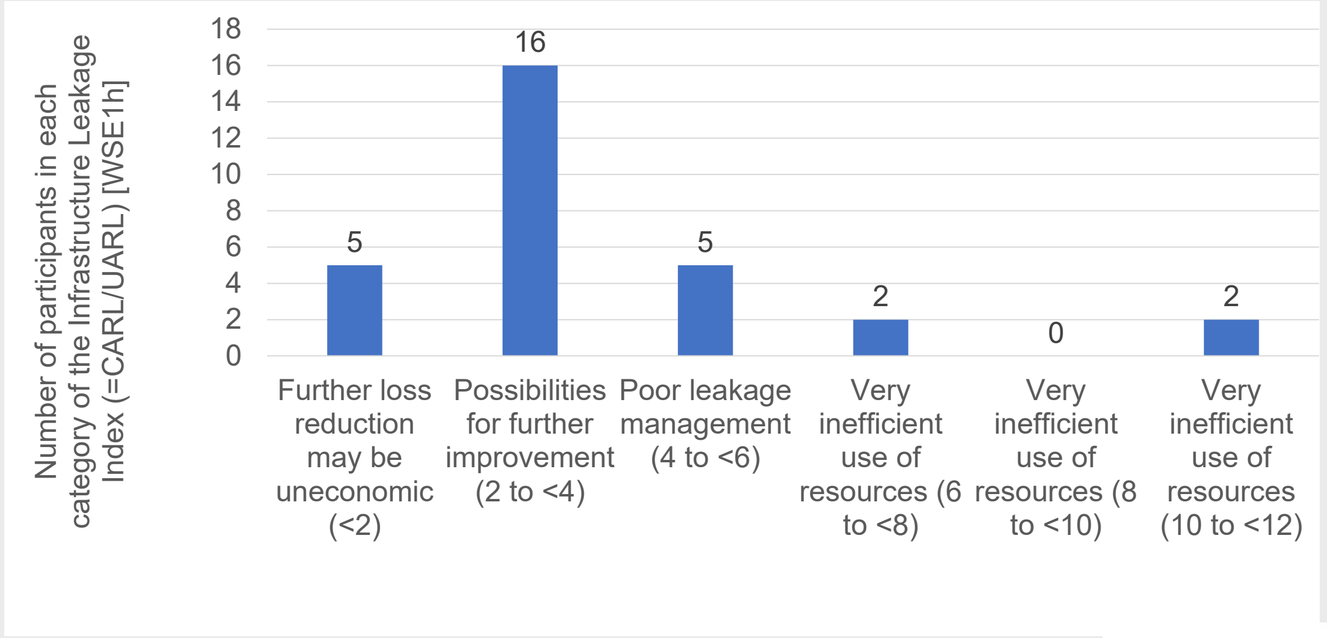
50% of stormwater discharges consented

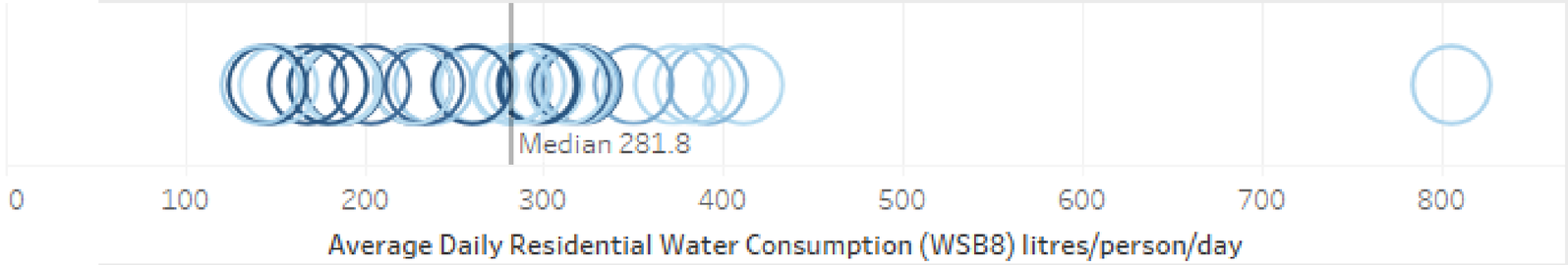
All stormwater discharges consented

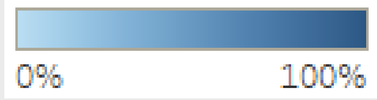


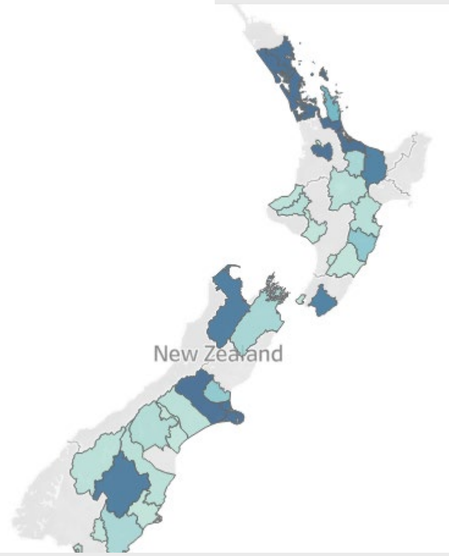
The amount of water we are using could be reduced

- Residential water consumption averages 281.8 litres/person/day across districts, but was as high as 800 litres/person/day.
- The Infrastructure Leakage Index (the benchmark recommended by international water loss experts) indicates most service districts (25 of 30) have economic opportunities to reduce water loss.
- Total water losses currently comprise around 20% of overall water supplied to networks but reach as high as 55%.
- More than half of New Zealand's residential properties now have a water meter.

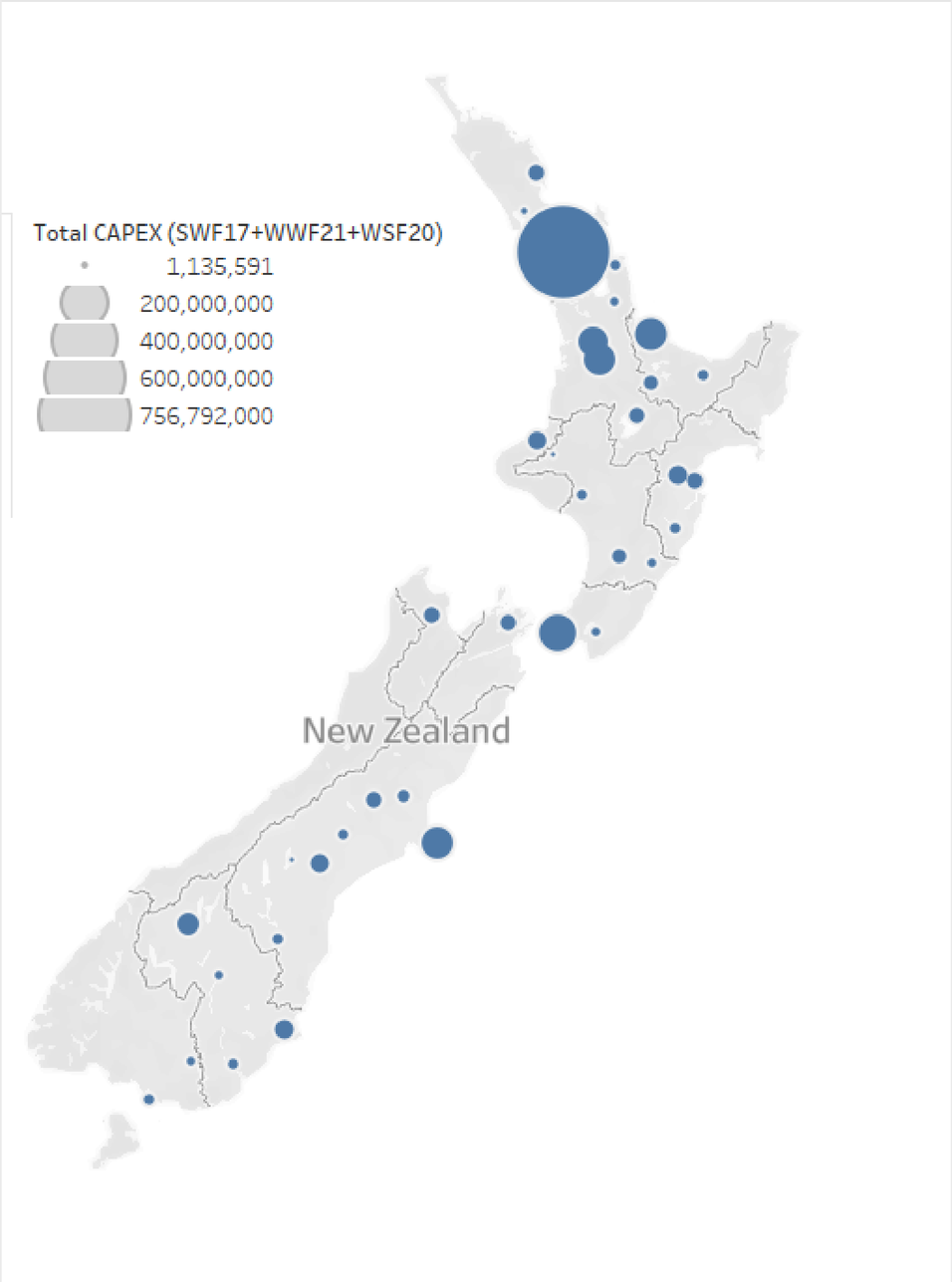






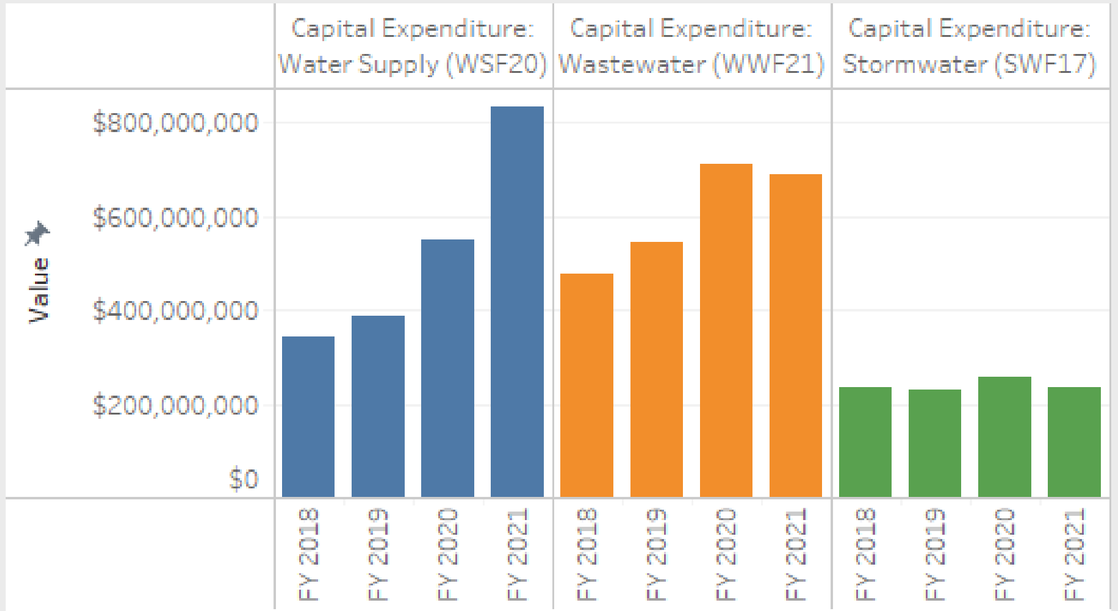


The water sector continues its growth trajectory

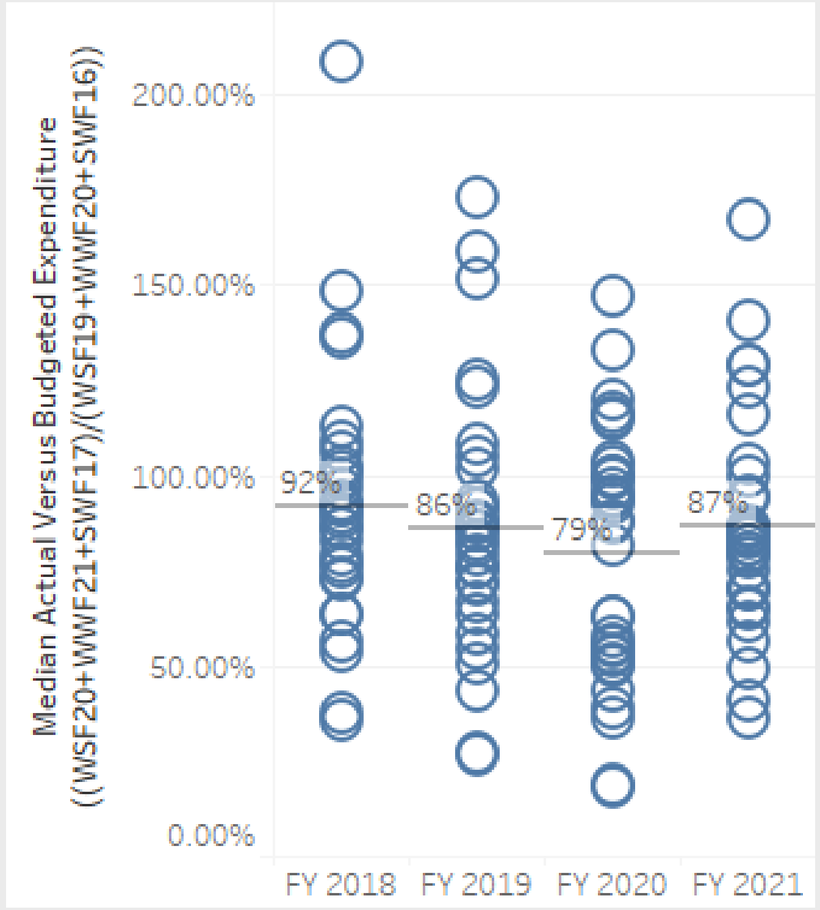


Over the past four years;

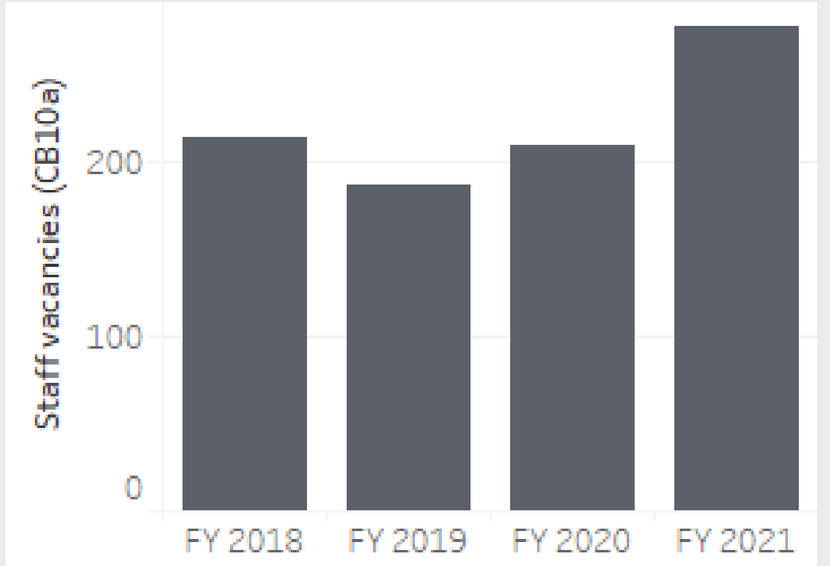
- The number of properties receiving water and wastewater has grown by 8%.
- Operational expenditure grew by 23%, and capital expenditure grew by 67%. Operational expenditure in the 2021 fiscal year totalled $958 million, and capital expenditure $1.8 billion.
- The average residential water charge increased by 7% last year to $471, and the average wastewater charge by 8% to $522.
- Much of the growth in expenditure was driven by increased spending on Auckland's water supply to meet growth. Watercare's reported capital expenditure on water supply grew from $192 million in the 2020 fiscal year to $406 million.



Growth is putting pressure on service delivery

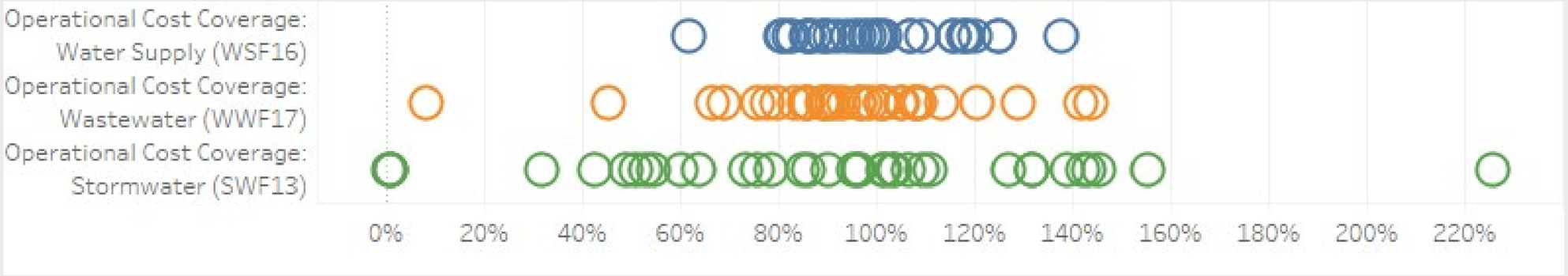


- The number of staff employed directly by water service providers has expanded by 6%, growing to 2,842 employees, supported by an additional 1,067 contractors working exclusively on service delivery.
- Finding staff continues to be a challenge, with over 10% of all listed roles being vacant.
- Only 83% of capital expenditure budgeted for was delivered.

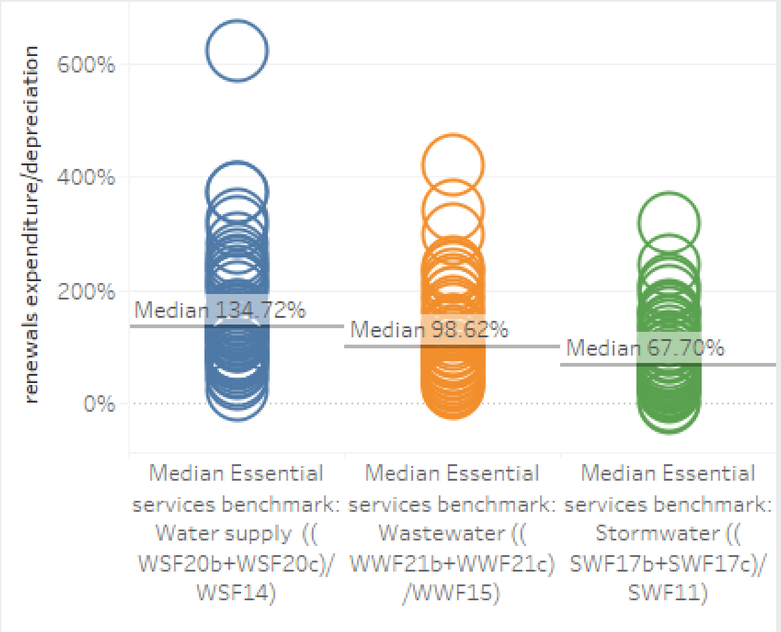


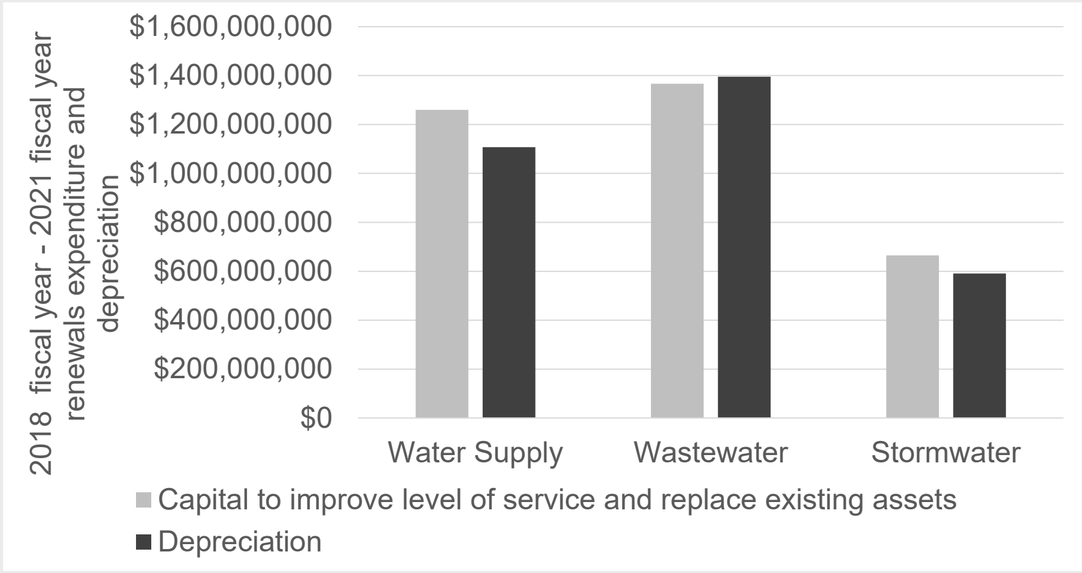
Revenue and expenditure are insufficient to cover depreciation in some service districts

In some districts revenue was insufficient to cover operating, interest, & depreciation costs. Water supply revenue fell short of these costs in 16 of 34 (47%) water service districts, 20 of 37 (54%) wastewater service districts, & 18 of 37 (48%) stormwater service districts.

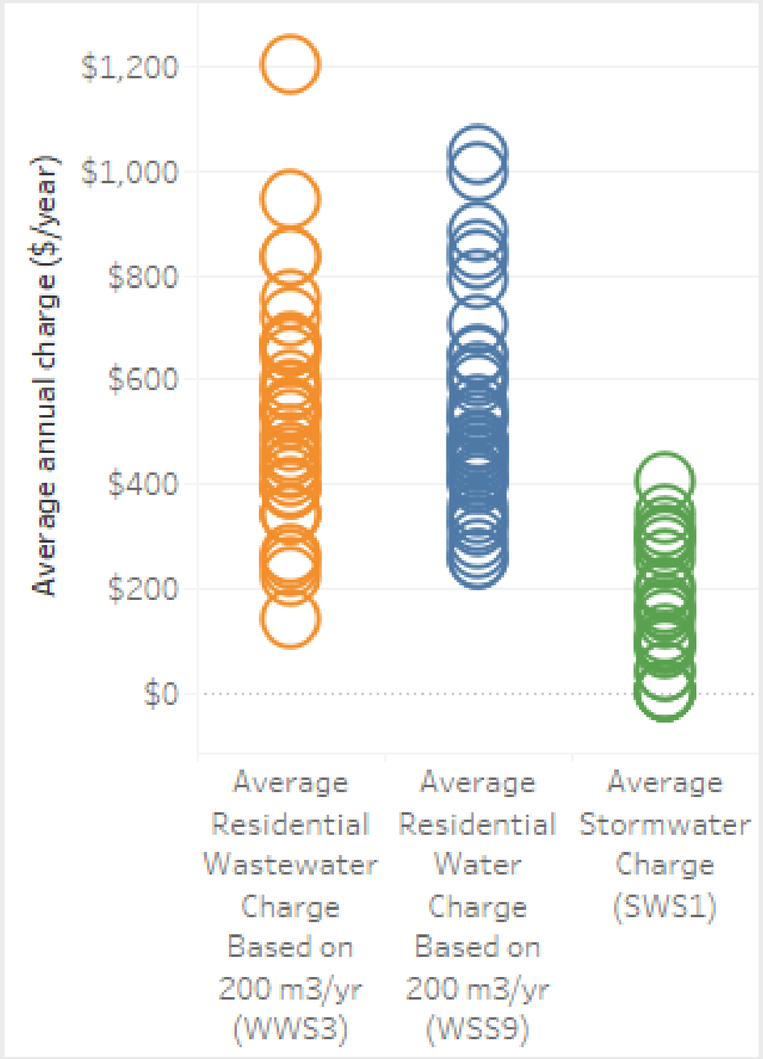


Over the past four years, expenditure on existing assets has not exceeded depreciation for 9 water, 14 wastewater, and 15 stormwater service districts. If the trend persists, levels of service in these districts would be expected to decline.





There is large variation in how water is charged for around New Zealand



The average residential water charge increased by 7% last year to $471, and the average wastewater charge by 8% to $522.

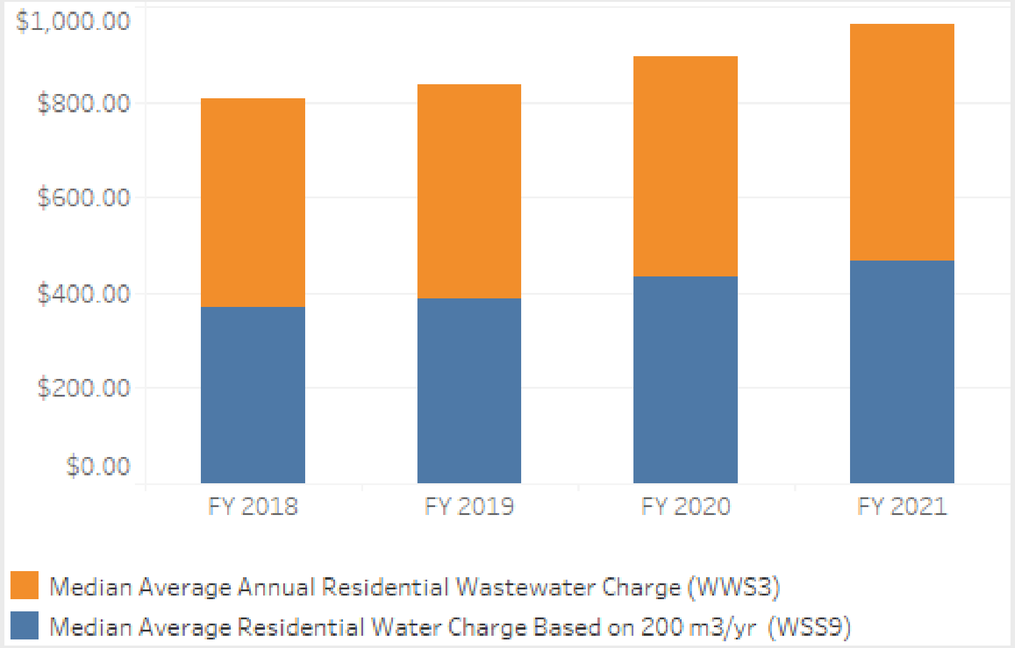
An average New Zealand residential property pays $960.46, less than half the average electricity bill of $2,110 per year (MBIE, 2022).

Charges are generally collected through targeted rates, there is a broad range of approaches to levying water charges across and within districts.

Most service providers (26 of 37) have a single charge for their entire district, however some service providers associated charges with different networks under their operation.

The highest average residential charges in the country ($2,237) would take a worker on the minimum wage nearly three weeks' work (131 hours) to pay at the time of publishing.

The highest wastewater charges in the country ($1,205) are over eight times higher than the lowest ($140).



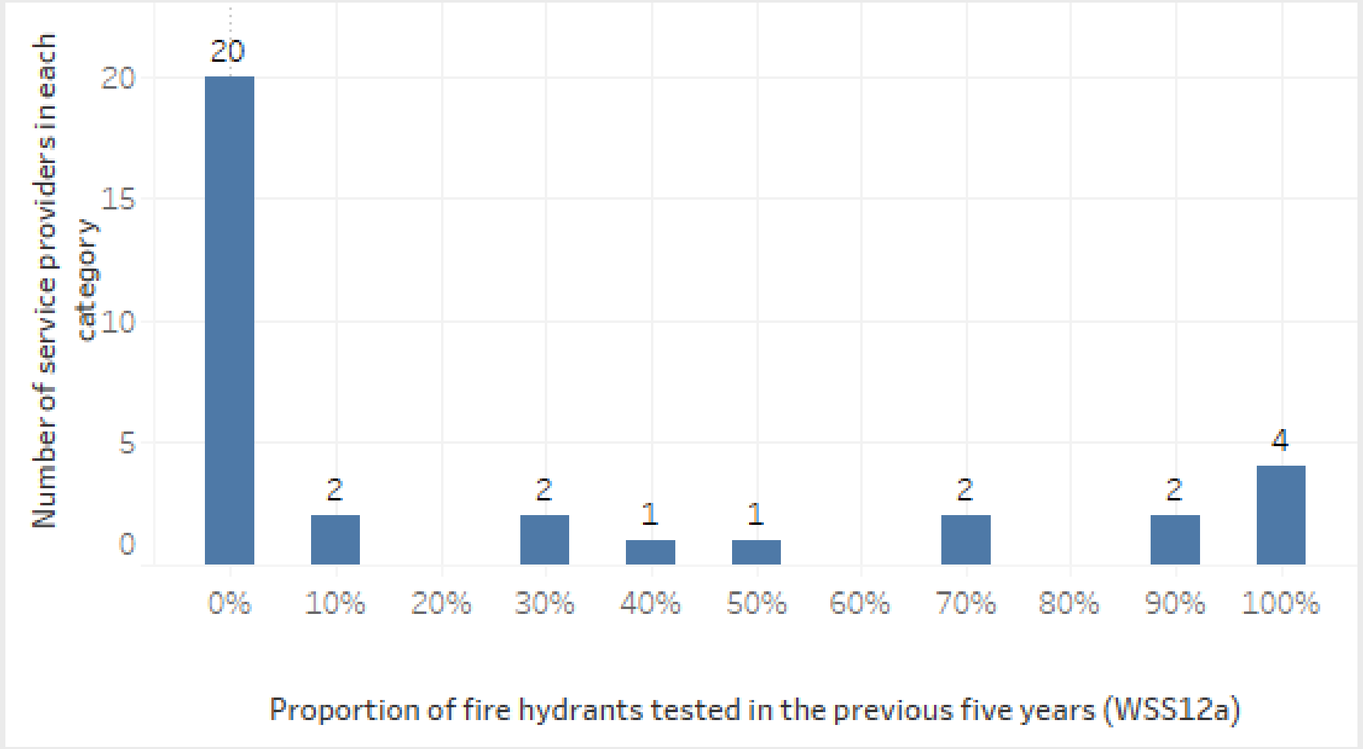
Proportion of fire hydrants tested against code in different service districts

Firefighting Water Supplies Code of Practice

The Code is not mandatory, but has been adopted in some regional plans.

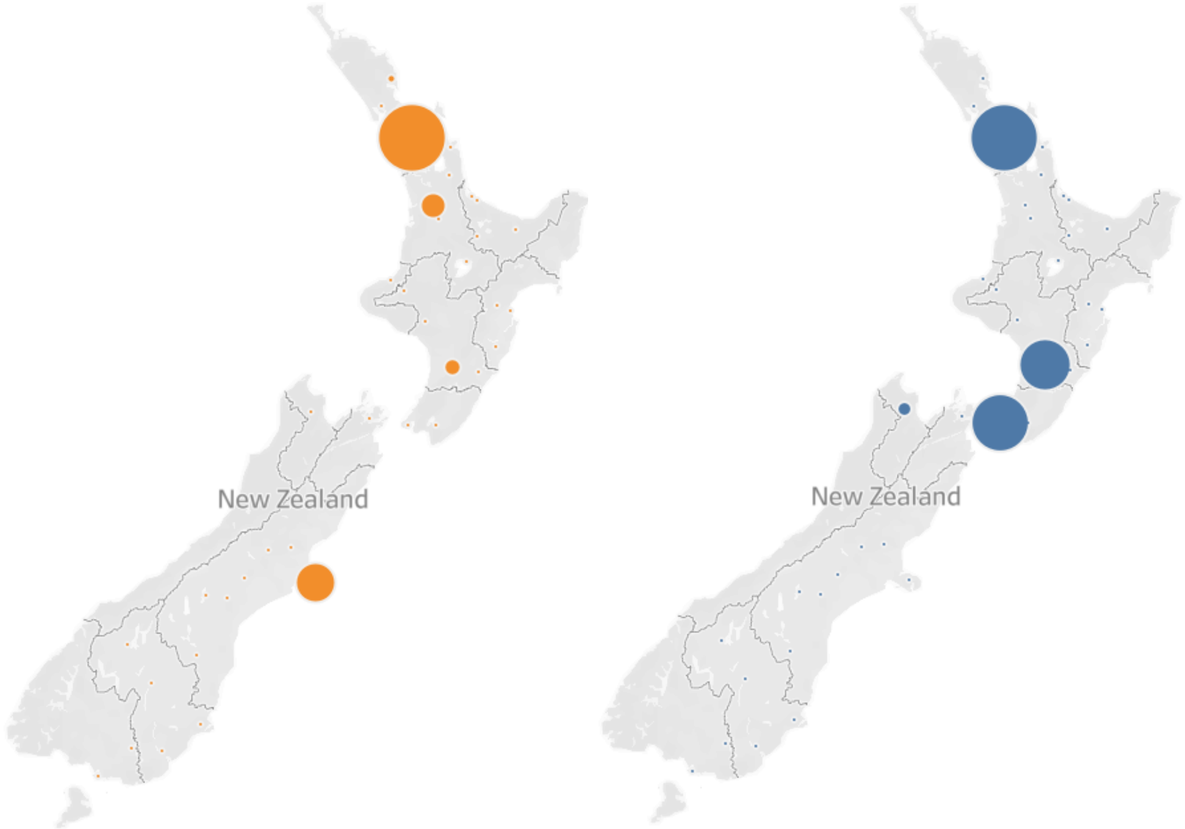
The Code requires that:

"All fire hydrants must be inspected and flushed every five years by an approved tester. To achieve this, a progressive inspection programme must be agreed between the Fire Service and the Water Supply Authority."

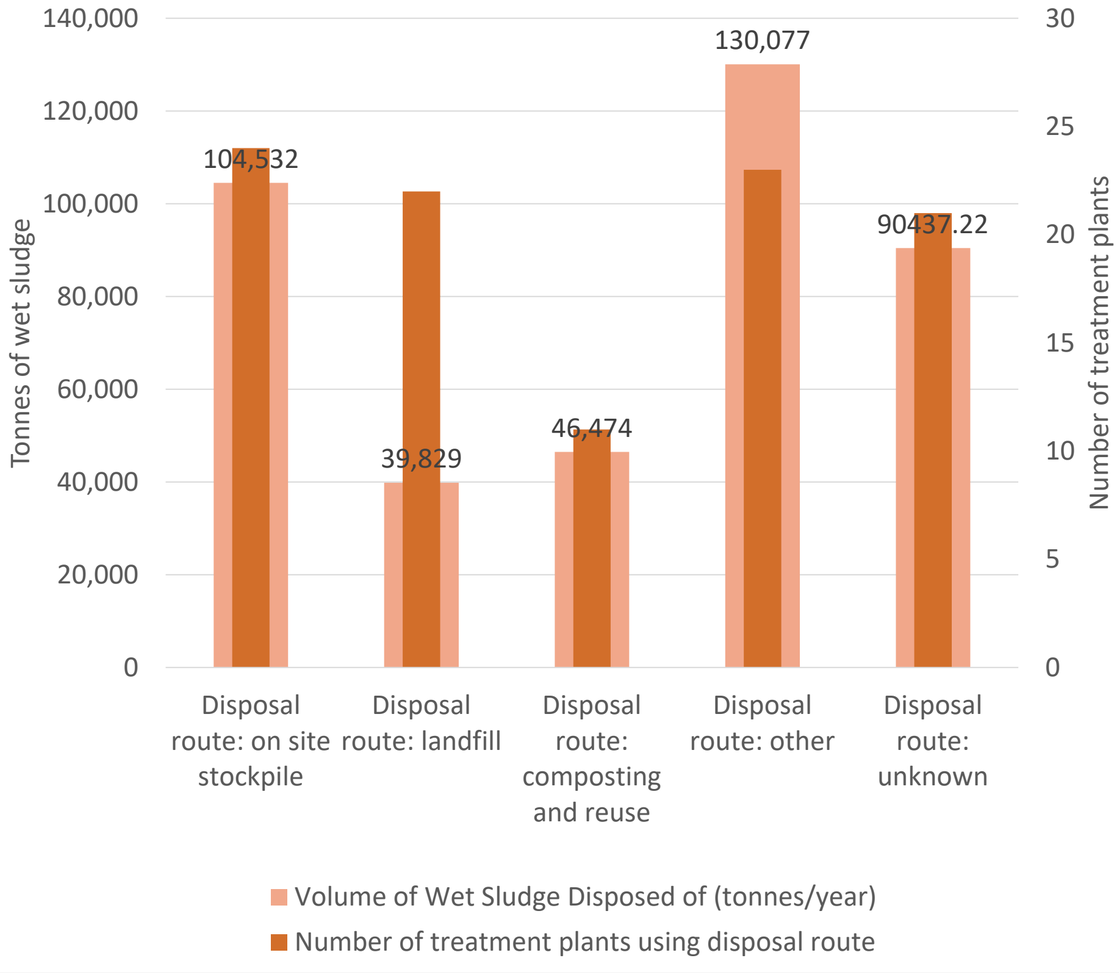


Untapped opportunities exist for our water networks to contribute to a circular economy

Energy generation



Sludge reuse



Where to from here

- Taumata Arowai has completed consultation on drinking water network environmental performance measures
- Many of the measures build on NPR performance measures
- Taumata Arowai Drinking water network environmental performance measures required for reporting from July 2022
- Wastewater and stormwater measures will come next
- 2021-22 National Performance Review will cover all metrics

Resources

www.waternz.org.nz/NationalPerformanceReview

www.waternz.org.nz/NPRdashboard

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