Economic Regulation Authority

Summary of Key Findings
2013 Water, Sewerage and Irrigation Performance Report

Drinking Water Supply

In 2013, the number of potable (drinking) water supply schemes in the State with more than 1,000 connected properties (32) was unchanged from the previous year.

Between 2012 and 2013, the state-wide total volume of water sourced for drinking increased by 9.0% (from 351,398ML to 383,171ML); water sourced in Perth increased by 11.0% (from 262,134ML to 291,473),[1] and water sourced for regional towns increased by 2.7% (from 89,264ML to 91,698ML).[2]

Groundwater continues to be the dominant source of drinking water in the State; in 2013, groundwater accounted for 50.4% of total sourced water, followed by desalination (25.0%) and surface water (13.8%).[3] In 2013, groundwater provided 47.9% of water sourced in Perth and 58.4% of water sourced in regional towns, a six year high.

2013 is the first time that desalination has replaced surface water as the second source of drinking water. The replacement of surface water with desalination as the second source of drinking water is the result of a 90% increase in water sourced from desalination (from 50,458ML to 95,770ML) and a 38.3% reduction in water sourced from surface water (from 85,749ML to 52,885ML) between 2012 and 2013.

The increase in water sourced from desalination is the result of the Water Corporation's Binningup desalination plant going into full production. The output from the Binningup plant supplements that of the Kwinana plant, giving an aggregate capacity of 150GL per annum, equivalent to 40% of total sourced water in 2013. Both desalination plants exclusively supply water to Perth, where desalination provided 32.9% of total sourced water in 2013. The shift away from surface water towards desalination as a source of drinking water is the result of the Government's water security strategy designed to tackle the effects of a drying climate.

Recycling is another important climate independent source of water, particularly in regional towns. In 2013, recycling accounted for 5.2% (or 4.8GL) of supplied water. In Perth, recycling accounted for 2.5% of supplied water in 2013, but this is expected to increase as the Water Corporation brings its new groundwater replenishment plant (which pumps recycled water into underground aquifers) into service in 2016. The initial capacity of the plant is 7GL per annum, with potential to increase to 28GL per annum in the future.

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[1] Water Corporation informed the ERA that the 2013 sourced water includes 27.7GL of bulk water exported to the Goldfields and Agricultural Water Scheme.

[2] Water sourced is the sum of urban water supplied (337,255ML in 2013) and water that is stored in dams and other water storages for future consumption (45,916ML in 2013).

[3] Water Corporation informed the ERA that, in relation to the towns that they supply, the use of groundwater, desalinated water and surface water has not changed, but how it is accounted for has changed.

In regional towns, bulk water supplies[4] replaced surface water as the second source of drinking water. Between 2012 and 2013, surface water's share of the total supply fell from 21.9% to 6.7%, while bulk water increased from 17.2% to 29.7%.

Between 2012 and 2013, the total volume of urban water supplied in Perth increased by 0.3% (from 248,021ML to 248,818ML), and in regional towns by 1.3% (from 87,277ML to 88,437ML). Over the same period, the average annual water consumption per property in Perth fell by 0.4% (from 250kL to 249kL), while average consumption per property in regional towns fell by 1.0% (from 313kL to 310kL). Average water consumption per property across the State continued to vary in accordance with the prevailing climate; the highest consumption in 2011/12 was in Newman (565kL/annum), while the lowest consumption was in Denmark (147kL/annum).

The size of water supply networks, measured by the total length of water mains continued to grow. The length of water main data for 2013 was distorted by adjustments resulting from Water Corporation's reclassification of their existing mains. The effect of the adjustment was particularly evident in regional towns, some of which had large reductions to total length of mains, with an aggregate reduction of 6.2% in 2013. Between 2012 and 2013, the state-wide total length of water mains increased by a modest 0.1% (from 19,109km to 19,130km).

Between 2012 and 2013, mains breaks in Perth increased by 6.4%, but still remained close to the six year average of 13.5 per 100km of main, while mains breaks in regional towns fell by 3.0%, despite a 6.2% reduction in the total length of mains. The latter result implies that the underlying mains breaks performance in regional towns was better than the data indicates.

The state-wide total number of connected properties increased by 2.0% during 2013; connections in Perth grew by 1.9% (from 750,000 to 764,000 connections) and connections in regional towns grew by 2.5% (from 197,000 to 202,000 connections). The 2.0% growth in 2013 was significantly above the long term average growth of 0.6% per annum.

Between 2012 and 2013, the state-wide total number of water quality complaints fell by 76.9%, and the number of water service complaints fell by 38.5%. In the 30 towns (including Perth) supplied by Water Corporation, water quality complaints fell by 97.3%, and water service complaints fell by 44.8%. In 2013, most of the Water Corporation towns that participate in the Urban Framework recorded complaint levels that are substantially below the median of their peers in other jurisdictions whereas, in previous years complaint levels were above the median values.

Water Corporation's explanation is that in previous years they recorded all customer contacts on particular subjects as a complaint, while their new process requires staff to assess the subject matter and context of each customer contact, and apply the definitional guidance in the Urban Framework, to determine whether the contact should be classified as a complaint.[5]

After considering the explanation provided by Water Corporation, the ERA remains unclear about how the process changes have resulted in such large reductions in recorded complaints for their water and sewerage service. The ERA will conduct a detailed examination of Water Corporation's complaints handling processes in the next operational audit of their licence, scheduled for 2015.

Between 2012 and 2013, unplanned water interruptions in Perth increased in frequency and duration; the average frequency of interruptions increased by 10.9%, and the average duration

[4] The water utility purchases large volumes of water from another entity.

[5] See page 14 of the Performance Report for the explanation provided by Water Corporation.

of an interruption increased by 9.9%. Averaging the interruptions in regional towns results in a 13.3% decrease in the frequency of interruptions and a 15.2% decrease in the average duration of an interruption.

Sewerage Services

In 2013, the number of sewerage schemes in the State with more than 1,000 connected properties (22) was unchanged from the previous year.

Between 2012 and 2013, the state-wide total volume of sewage collected increased by 0.7% (from 155,150ML to 156,204ML). Total volume of sewage collected in Perth rose by 0.9% (from 129,586ML to 130,738ML), while the volume collected in regional towns fell by 0.4% (from 25,563ML to 25,466ML).

Compared to 2012, the volume of sewage collected per property in Perth and the average regional town both fell, by 1.1% and 4.1% respectively. In 2013, the average volume collected in Perth was 177kL, while the volume collected in the average regional town was 185kL.

Between 2012 and 2013, the percentage of treated effluent that was supplied as recycled water in Perth remained relatively unchanged, but the average volume of recycled water produced in regional towns increased to reach a six year high of 54.1%. A major contributor to the increase in the regional town average was the 467% increase in recycled water supplied in Broome. If the Broome data is excluded then the regional town average falls to 51.6%.

During 2013, the total length of sewerage mains and channels in Perth increased by 1.5%, while in regional towns the length of mains and channels fell by 0.7%. The fall in regional towns is largely attributable to the reclassification of mains, and a review of town boundaries, for the 21 supply schemes operated by Water Corporation.

In 2013, the level of breaks and chokes in Perth and the average regional town both reached four year lows of 16.1 per 100km of main and 24.6 per 100km or main respectively. The result for Perth continues a three year downward trend in breaks and chokes.

The state-wide total number of connected properties increased by 1.8% during 2013; connections in Perth grew by 1.9% (from 685,000 to 698,000 connections) and connections in regional towns grew by 2.5% (from 147,000 to 149,000 connections). Over the six years to 2013, the average annual growth in Perth's connections was 2.3%, and in regional towns annual growth was 2.9%.

Between 2012 and 2013, the number of sewerage service complaints (per 1,000 connected properties) in Perth and the average regional town both fell by 50.0% (from 2.3 in 2010/11 to 1.2 in 2011/12). This is the fourth consecutive year in which the number of complaints has fallen across the State. Since 2009, the level of complaints in Perth has fallen by nearly 97%, and in the average regional town by 91.3%. All except one of the 22 sewerage schemes are operated by Water Corporation. In 2013, the level of complaints for the Water Corporation towns reporting under the Urban Framework is much lower than their peers in other jurisdictions. Water Corporation attributes the reduction in complaints to its new complaints handling process, which was discussed in the previous section.

Irrigation Services

Between 2012 and 2013, the volume of irrigation water supplied by both Harvey Water and Ord Irrigation decreased, by 9.3% and 15.3% respectively.

2013 is the third consecutive year of decline for Harvey Water; since 2010, the annual volume of water supplied fallen by 38.6%. The decline is attributed to continuing dry conditions in the supply area leading to reduced water allocations, as well as contraction in the local dairy industry.

Since 2009, the annual volume of water supplied by Ord Irrigation has fallen by 30%. The decline in the volume of water supplied may be due to the reduced water demand from silviculture customers, as their plantations mature.

The number of customer service points on the Harvey Water and Ord Irrigation supply networks were relatively unchanged during 2013, as were the length of their supply network channels and pipes.