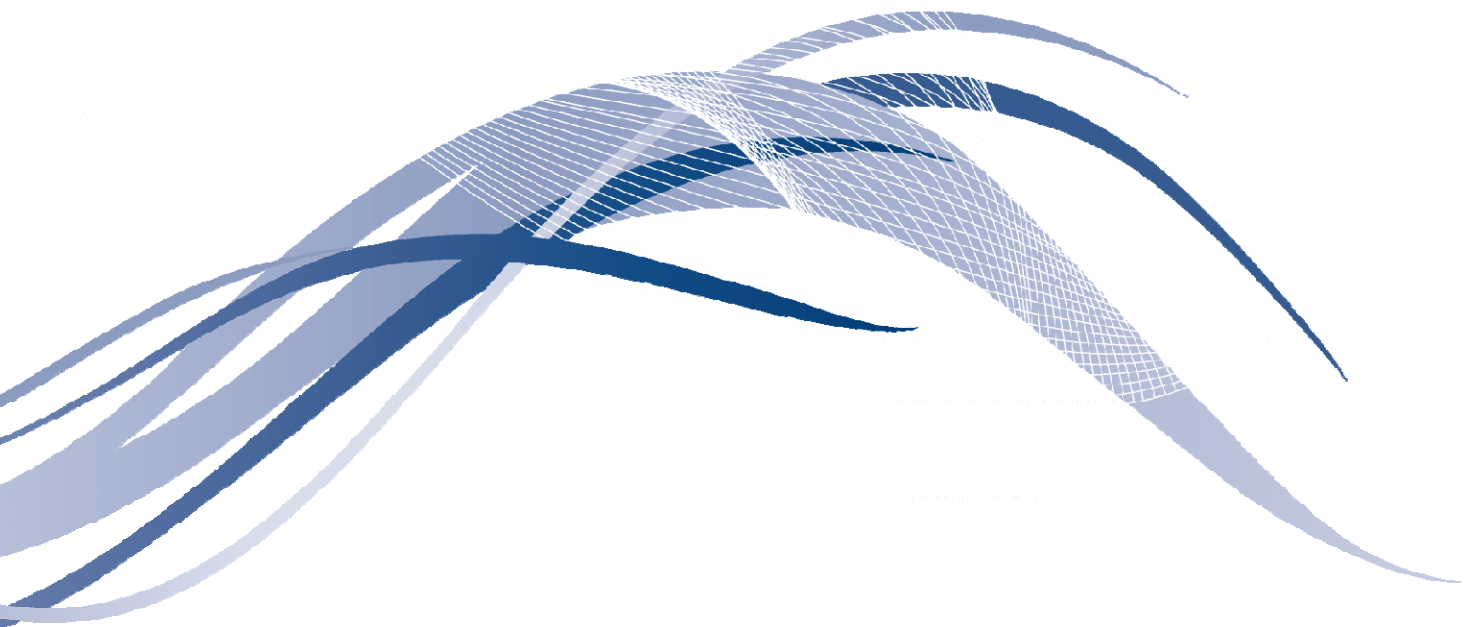




HUNTER WATER CORPORATION

Service Quality and System Performance Report 2011-12



August 2012

About the Annual Operating Licence Reports

Hunter Water Corporation (Hunter Water) delivers services under an Operating Licence granted by the NSW Government. The licence protects consumers by prescribing minimum standards of service that Hunter Water must meet in relation to:

- Drinking water quality - supplying customers with safe drinking water
- Water continuity - providing customers with a reliable supply of water
- Water pressure - providing customers with water pressure as specified in the licence
- Wastewater transport - providing the reliable transport of sewage

The Operating Licence also sets out conditions relating to community consultation, customer and consumer rights, customer complaint and dispute handling, managing water demand and supply, environmental management, publication of environmental and Ecologically Sustainable Development (ESD) indicators and independent auditing of operational performance.

This report covers the final year of the previous Operating Licence, which was from 1 July 2007 to 30 June 2012. The content of the licence was determined after a full public review by the Independent Pricing and Regulatory Tribunal (IPART). Full copies of the 2007-2012 Operating Licence and the current licence (2012-2017) are available from the publications area of Hunter Water's website www.hunterwater.com.au.

Each year, an independent audit of Hunter Water's operations is conducted to assess the Corporation's compliance with the Operating Licence. The audit assesses Hunter Water's performance against service standards and associated conditions of the licence. This annual audit is overseen by IPART.

To assist in the audit process, the Operating Licence requires a number of reports to be provided annually to IPART. These reports are:

- Catchment Report
- Consultative Forum Report
- Customer Services Report
- Drinking Water Quality Management Report
- Environmental Performance Indicators Report
- Integrated Water Resource Plan Report
- Service Quality and System Performance Report

The reports must be submitted by 1 September each year with the exception of the Drinking Water Quality Management Report, which is submitted by 31 December. All reports, or key elements of them as set out in the Operating Licence, are available on Hunter Water's website or to the community free of charge at Hunter Water's offices.

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Executive Summary

This report presents Hunter Water's performance for 2011-12 in relation to the amended system performance standards and indicators set out in sections 4.5 and 4.7 of the Operating Licence for the period 1 July 2007 to 30 June 2012 and amended from July 2010.

A detailed list of the standards and indicators and the definitions relating to collecting and reporting them can be found in the Monitoring and Reporting Protocol (MRP) agreed between Hunter Water and IPART and updated at May 2011 (V1.3)¹.

The system performance standards and indicators are essentially based on three main criteria; water continuity, water pressure and sewage overflows.

This year system performance complied with the Operating Licence Standard limits. The Hunter has experienced the wettest licence period in the last six years characterised by frequent extended rain periods. The wet conditions and resultant level of moisture in the soil has had an impact on all three licence standards for different reasons.

The water pressure performance was the best result ever achieved since 2002-03 when this indicator was first introduced. There were fewer customers affected due to the wet and mild summer weather which resulted in lower water demand over that period. There were only a small number of confirmed low pressure events in the year in addition to those properties that are permanently affected due to elevation and/or network capacity limitations i.e. the "known low pressure properties".

Water Continuity performance is driven by the number of breaks and leaks in the system and our response to them. The incidence of breaks decreased compared to last year and this can be in part attributed to the reduced ground movement and pressure fluctuation in the pipes. Results for the continuity indicators improved on previous years; however there were two large significant unplanned interruptions in the year which adversely affected the final result. In general, water interruption duration performance was the second best result since 2002-03 and water interruption frequency performance was the third lowest in that period.

The incidence of dry weather sewage overflows has decreased in comparison to last year. The increased level of ground moisture means that tree roots are not actively chasing water in our mains. The level of new tree root intrusion has reduced and the identification and removal of existing problems along with active rehabilitation contributed to good performance. This has resulted in a lower number of dry overflows and there was a marginal increase in wet weather overflows. The rainfall pattern and dry weather overflows experienced correlates with the trend of the Southern Oscillation Index (SOI)².

Overall, the three system performance standards; water pressure, water continuity and sewage overflows and system performance indicators have performed well. In all areas, we have performed at levels better than those in previous years and have remained compliant with the Operating Licence standards.

¹ Hunter Water Corporation and Independent Pricing and Regulatory Tribunal (NSW), 2010, Monitoring and Reporting Protocol, Version 1.3, May, 2011.

² Southern Oscillation Index (SOI) is a measure of the monthly or seasonal fluctuations in the air pressure difference between Tahiti and Darwin. Sustained negative values of the SOI often indicate El Niño episodes; indicating a decrease in the strength of the Pacific Trade Winds and a reduction in rainfall over eastern and northern Australia. Positive values of the SOI are associated with stronger Pacific trade winds; known as a La Niña episode and an increased probability that eastern and northern Australia will be wetter than normal.

This report details 2011-12 licence period performance. In general, 10 years of historical data was used for performance comparison and trending.

1 System Performance Standards

Clause 4.5.2 of the Hunter Water Corporation Operating Licence requires that:

“By no later than 1 September each year, Hunter Water must report to IPART on:

- 1. The number of properties that experienced a Water Pressure Failure;*
- 2. The number of properties that experienced an Unplanned Water Interruption of greater than five hours;*
- 3. The number of properties that experienced three or more Unplanned Water Interruptions of greater than one hour,*
- 4. The number of private properties that experienced an Uncontrolled Sewage Overflow, and*
- 5. The number of private properties that experienced three or more Uncontrolled Sewage Overflows*

in the immediately preceding financial year.¹”

Performance in relation to these standards is now discussed in turn.

1.1 Water Pressure Standard

The water pressure standard is:

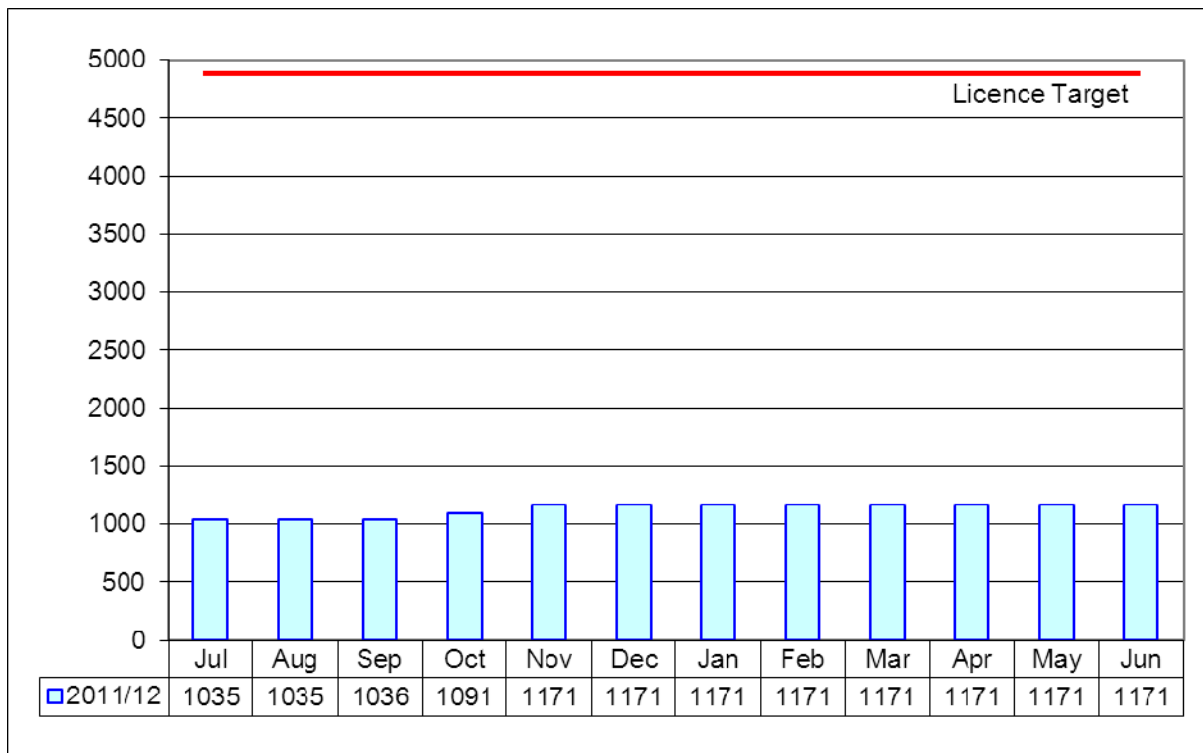
“No more than 4,800 properties of water customers per annum will experience a low pressure failure of less than 20 metres head for a continuous period of 30 minutes or more as measured at the point of connection to Hunter Water’s main. Properties that experience low pressure on a day when peak day demand exceeds 370 megalitres per day are excluded.”

1.1.1 Performance

Hunter Water met the performance requirement of this standard. In 2011-12, 1,171 properties experienced low pressure which is below the target specified in the standard. Details of performance for each month are shown in Figure 1-1.

¹ Capitalised terms in this quote denote terms defined in the operating licence.

Figure 1-1 Properties Affected by Low Pressure (no. per month)



1.1.2 Comment

Performance in 2011-12 is better than the result for previous years due to the milder summer climate and extended periods of wet weather which resulted in moderate water demand. This indicator is calculated with a demand based model and confirmed low pressure events. It includes 1,035 properties in areas identified as permanently receiving low pressure. The maximum daily demand of 240ML was recorded in November 2011 and was the lowest annual maximum day demand since 1978 when electronic recording commenced.

1.2 Unplanned Water Interruption Duration Standard

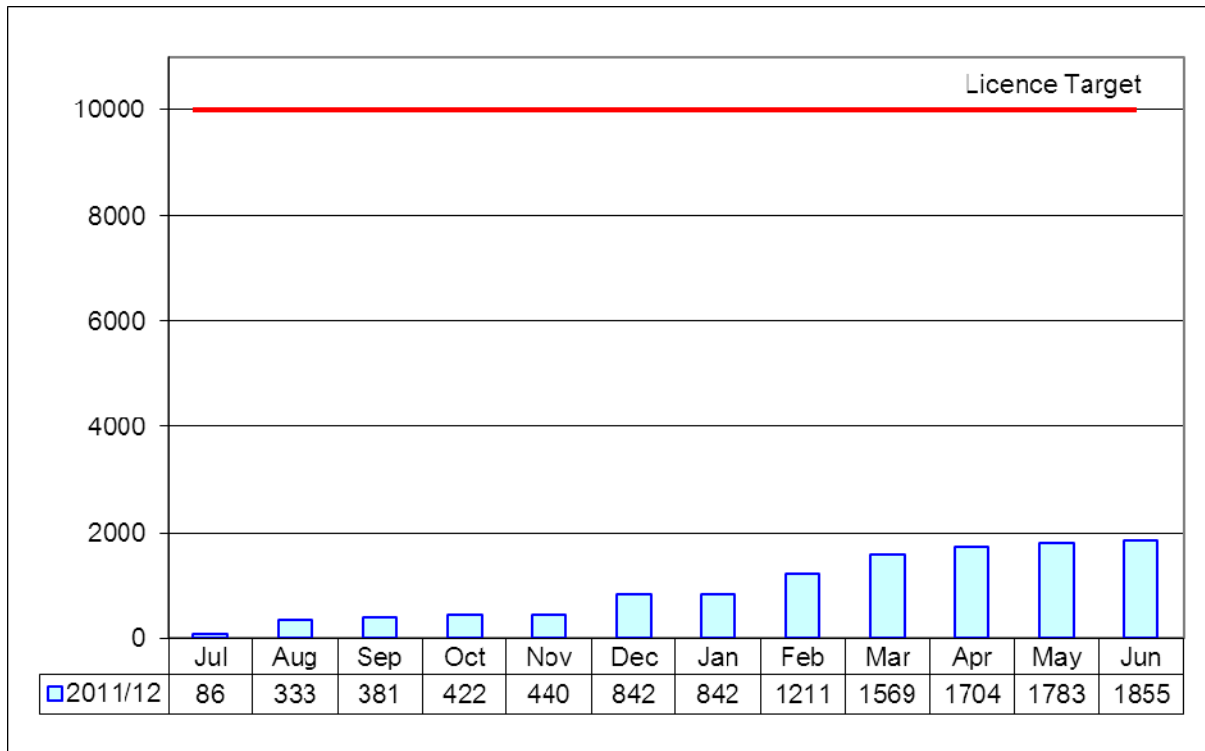
The water interruption standard is:

“No more than 10,000 properties served will experience an unplanned water interruption exceeding 5 hours in duration in the licence year.”

1.2.1 Performance

Hunter Water recorded 1,855 properties with an unplanned outage of more than five hours during 2011-12. Details of performance for each month are shown in Figure 1-2.

Figure 1-2 Properties Affected by Unplanned Water Interruptions Greater than 5 Continuous Hours (cumulative no. year to date)



1.2.2 Comment

This indicator measures the number of properties affected by an unplanned interruption exceeding five hours. This result is the second best performance achieved in the last 10 years. Of the 1,855 properties affected, more than 700 were the result of two large incidents that are detailed in section 2.1.4 of this report. Briefly these events comprised a 200mm main break at Adamstown Heights and a planned valve replacement that did not go as planned.

1.3 Unplanned Water Interruption Frequency Standard

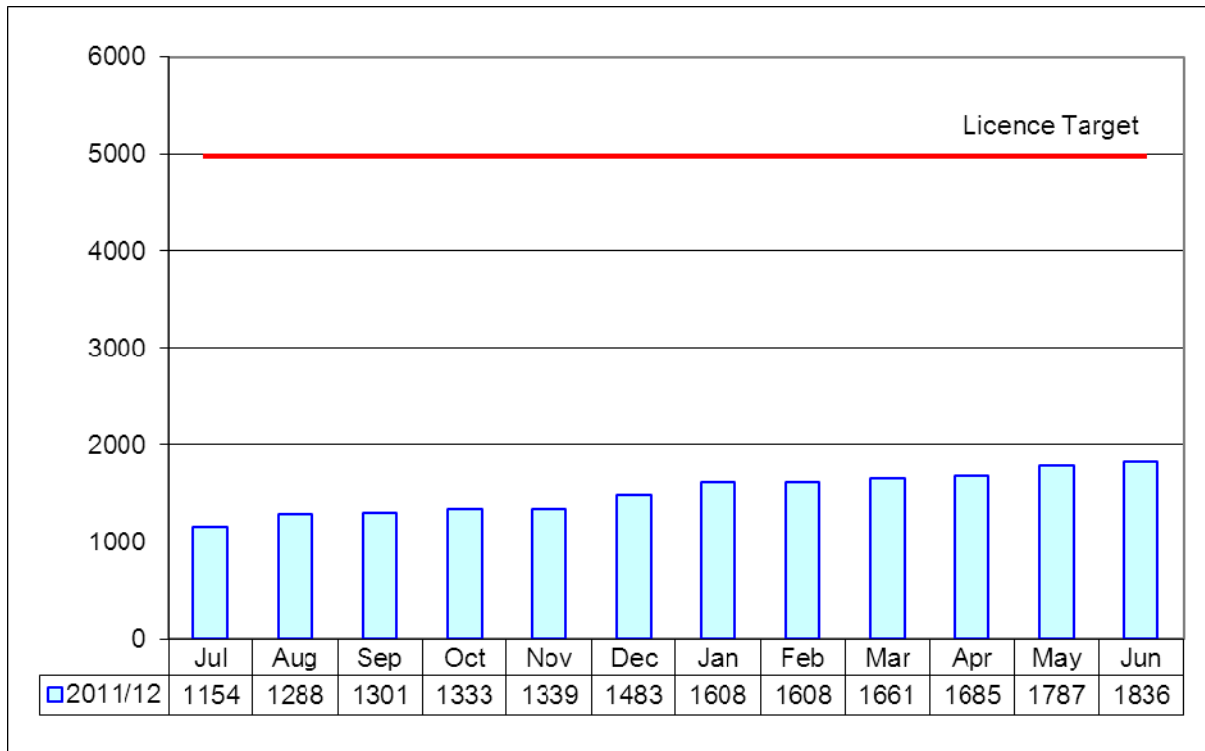
The water interruption frequency standard is:

“No more than 5,000 properties served will experience 3 or more unplanned water interruptions exceeding 1 hour in duration in the licence year.”

1.3.1 Frequency Performance

Hunter Water recorded 1,836 properties with three or more unplanned outages of more than one hour duration during 2011-12. Details of performance for each month are shown in Figure 1-3.

Figure 1-3 Properties with 3 or More Unplanned Water Interruptions Greater than 1 hour (cumulative no. year to date)



1.3.2 Comment

This indicator measures unplanned interruption frequency for the properties. The result for 2011-12 was down by 20 per cent compared to 2010-11 and is the third best result in the last ten years. This result was dominated by a failure at Maitland that resulted in multiple outages and added over 1,100 properties in July. Unplanned outages during the balance of the year added less than 700 properties to the total.

1.4 Uncontrolled Sewage Overflows Standard

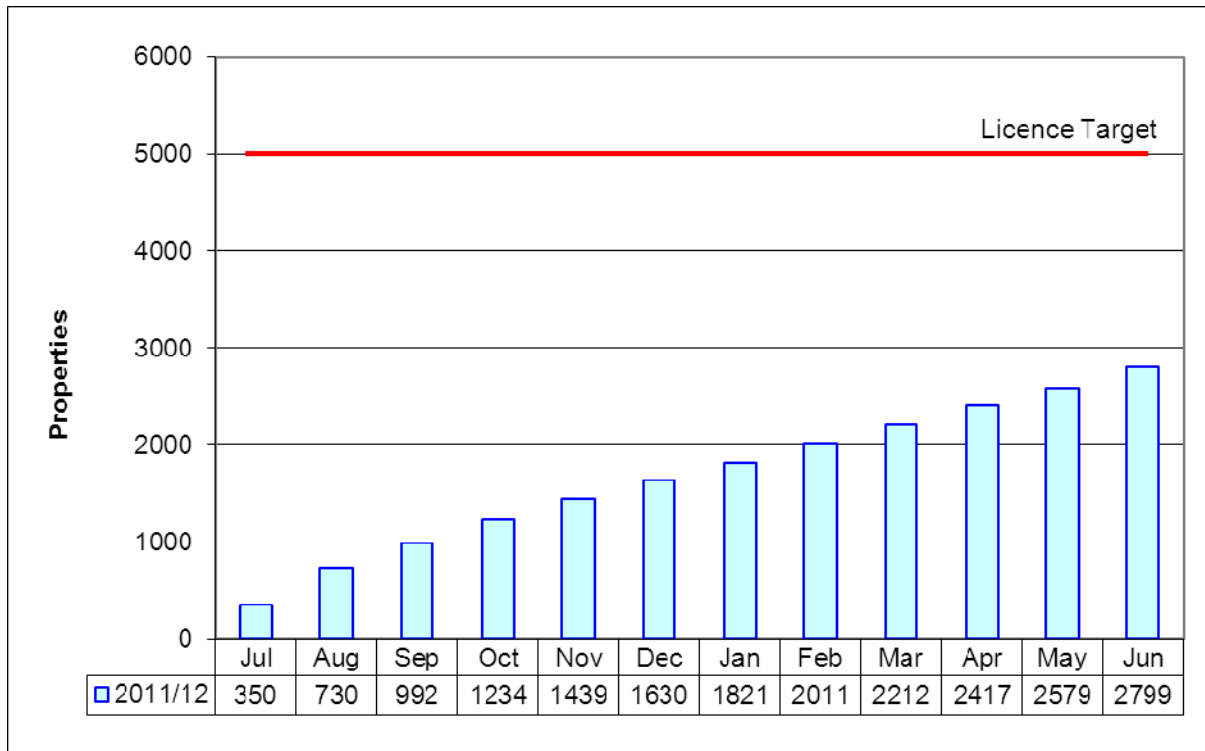
The uncontrolled sewage overflow standard is:

“No more than 5,000 private properties impacted by uncontrolled dry weather sewage overflows in the licence year.”

1.4.1 Performance

Hunter Water recorded 2,799 uncontrolled dry weather sewage overflows on private property during 2011-12. Details of performance in each month are shown in Figure 1-4.

Figure 1-4 Uncontrolled Dry Weather Sewage Overflows on Private Property (cumulative no. year to date)



1.4.2 Comment

The result for the year was 25 per cent lower than last year and the second best result in ten years. The lower level of dry sewage overflows can be largely attributed to the removal of tree roots that entered the system during the preceding drier period, improved jetting equipment and work practice, and patch lining of mains after repeat events.

1.5 Uncontrolled Sewage Overflows Frequency Standard

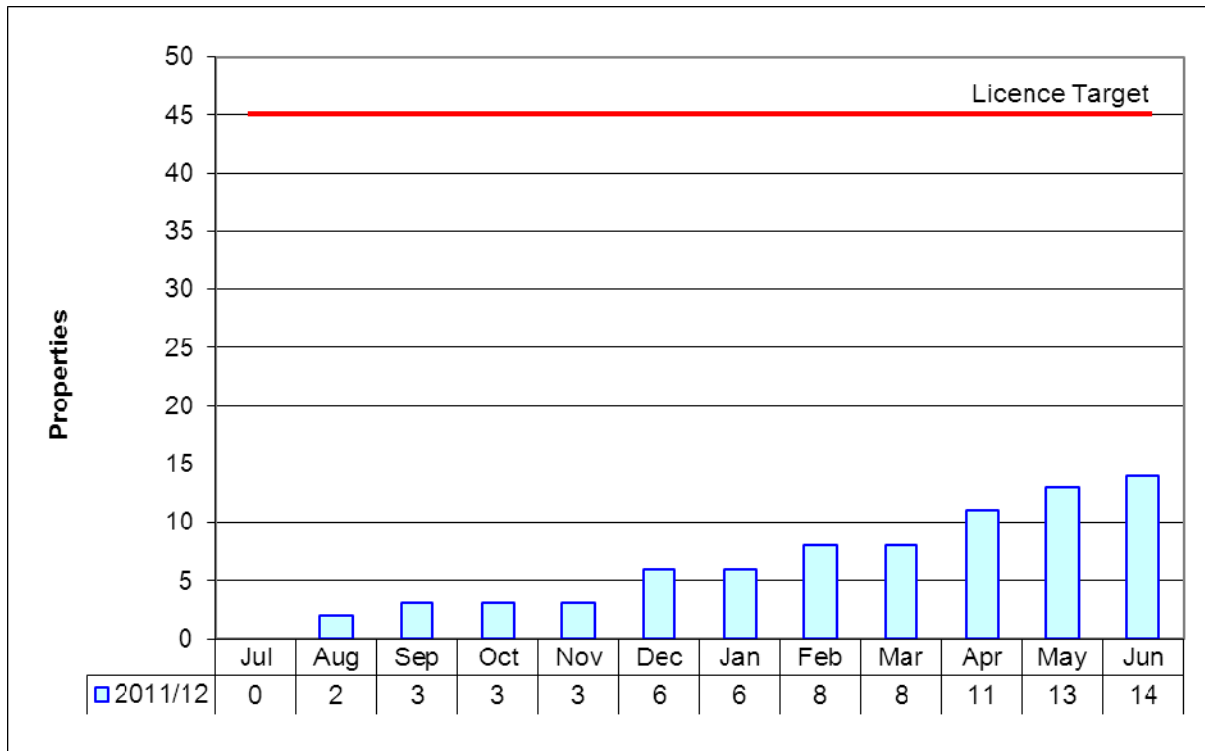
The uncontrolled sewage overflow frequency standard is:

“No more than 45 properties experience three or more uncontrolled dry weather sewage overflow events in the licence year that impact on private property.”

1.5.1 Frequency Performance

Hunter Water recorded 14 private properties that experienced three or more uncontrolled dry weather sewage overflows during 2011-12. Details of performance in each month are shown in Figure 1-5.

Figure 1-5 Private Properties with 3 or More Uncontrolled Dry Weather Sewage Overflows (cumulative no. year to date)



1.5.2 Comment

This indicator measures the impact of repeat events on private properties. The result for the year was lower than in previous years and was consistent with the dry weather sewage overflows performance. This is attributable in part to targeted maintenance of assets identified as being at risk. Where a property suffers a second overflow within twelve months related assets are inspected by CCTV and if necessary the main is relined to reduce the likelihood of a third incident.

2 System Performance Indicators

2.1 Water Interruptions

2.1.1 Duration of Interruptions

(MRP Identifier: OL WSR-1A and OL WSR-1B)¹

2.1.1.1 Indicator and Explanatory Notes

“The number of properties affected by planned and unplanned water interruptions when the duration of the interruption is:

1. *Less than or equal to 1 hour (<=1 hour)*
2. *Between 1 and 5 hours (>1 hour & <= 5 hours)*
3. *Between 5 and 12 hours (>5 hours & <=12 hours)*
4. *Between 12 and 24 hours (>12 hours & <=24 hours)*
5. *More than 24 hours (> 24hrs)”*

The data presented for this indicator shows each planned and unplanned water interruption event distributed within the five different time categories.

While the events and time categories are reported separately (i.e. there is no cumulative reporting of interruptions), the charts show cumulative time category totals by month for the licence year.

For example, a single property could experience a planned interruption of say 0.8 hours and another planned event of 4.8 hours later in the year. The property will be counted twice, with one count in each of the first and second time categories (i.e. category (1) for the first event and category (2) for the second event). The combined total of 5.6 hours planned interruption would not be included in the third time category (i.e. category (3)) because each interruption event is counted individually. From this perspective the property counts in the 5 time categories are not mutually exclusive.

2.1.1.2 Performance

Figure 2-1 and Figure 2-2 show the performance against these indicators for planned and unplanned water interruptions.

¹ This refers to the reference numbers for the relevant indicators in the Monitoring and Reporting Protocol (MRP). This referencing system is used for each subsequent indicator.

Figure 2-1 Properties Affected by Planned Water Interruptions 2011-12 (cumulative no. year to date)

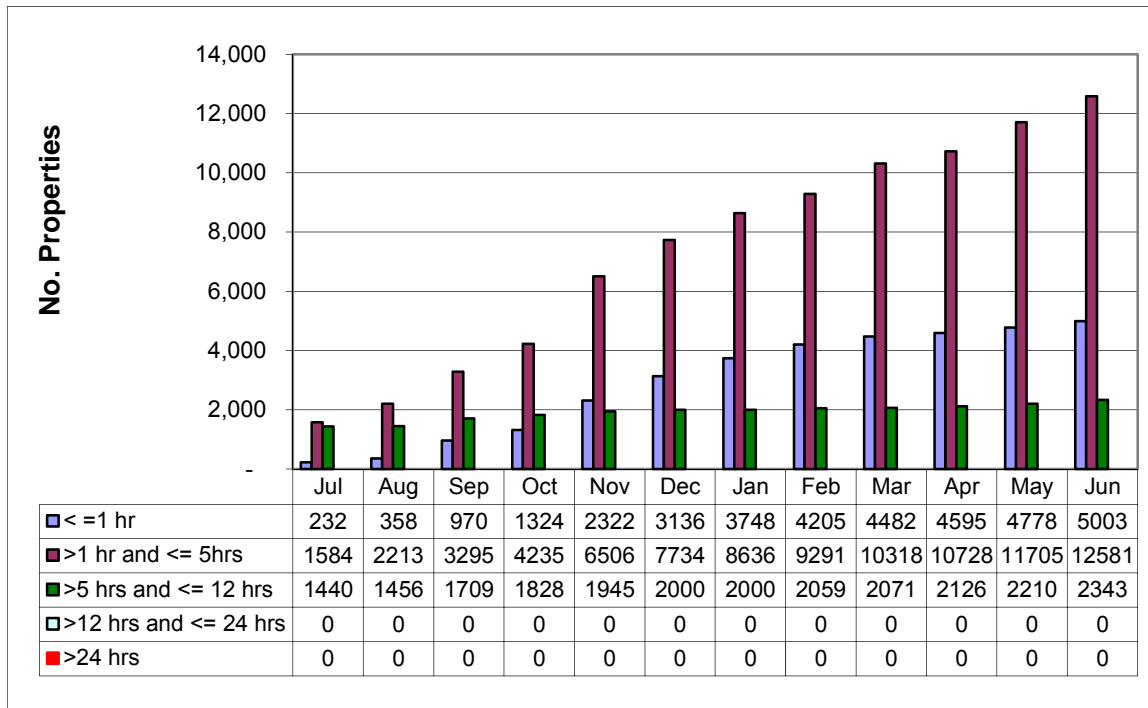
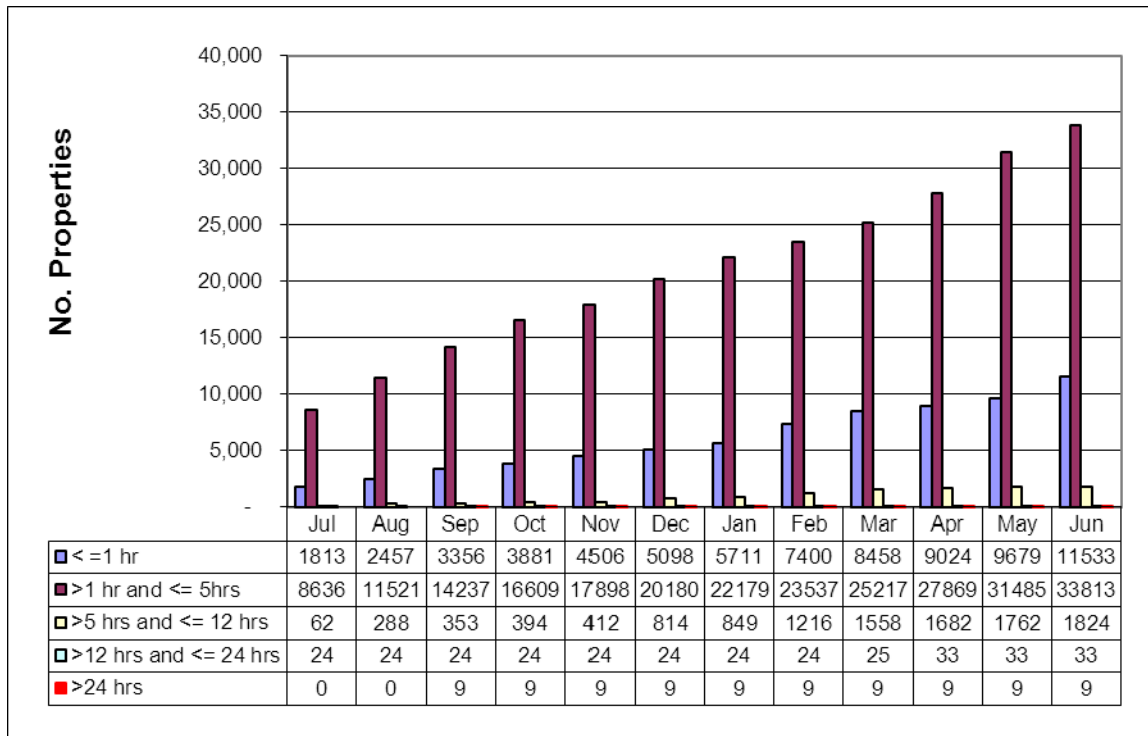


Figure 2-2 Properties Affected by Unplanned Water Interruptions 2011-12 (cumulative no. year to date)



2.1.1.3 Comment

The total number of properties experiencing planned and unplanned interruptions decreased by 14 per cent compared to last year. The ratio of planned versus unplanned interruptions increased again this year resulting in a reduction in the level of unplanned inconvenience to the public as more jobs are performed after notice of the interruption has been given to the properties affected. In addition, the proportion of properties affected by planned and unplanned interruptions less than 5 hours increased from 91 per cent to 94 per cent compared to last year. This means less inconvenience to our customers.

The total number of properties with planned interruptions has increased marginally when compared to last year. Air scouring of watermains was performed at Boat Harbour and Coal Point in July and is a procedure to remove sediment from pipes and thereby improve water quality. The disruption in service to the public is normally of a short duration but does have an impact in planned interruptions. Other planned outages include cut-ins for new subdivisions, repair of minor leaks, maintenance of valves and hydrants that can be planned ahead of time and performed when all resources required are in place.

The total number of properties with unplanned interruptions and in various time bands has decreased when compared to last year. The nine properties with an unplanned interruption greater than 24 hours were in a new subdivision and comprised vacant land or houses under construction. The only occupied property in the street was provided with a water tanker.

2.1.2 Planned Interruptions not Commencing on Time

(MRP Identifier: OL WSR-1C)

2.1.2.1 Indicator and Explanatory Notes

“Number of properties affected by a planned water interruption that did not commence at the time specified in the notice.”

Water interruptions are generally caused by the need to shut down water mains to either undertake repairs or to carry out other work. By far the greatest number of supply interruptions in Hunter Water’s operational area is a result of operational problems. This work is often reactive in nature and shut down notices cannot be provided to residents beforehand. For other work, such as new connections and extensions to new services, the work can be programmed in advance and notice can be given to affected customers. It is generally these types of new works which are undertaken by way of planned shutdowns.

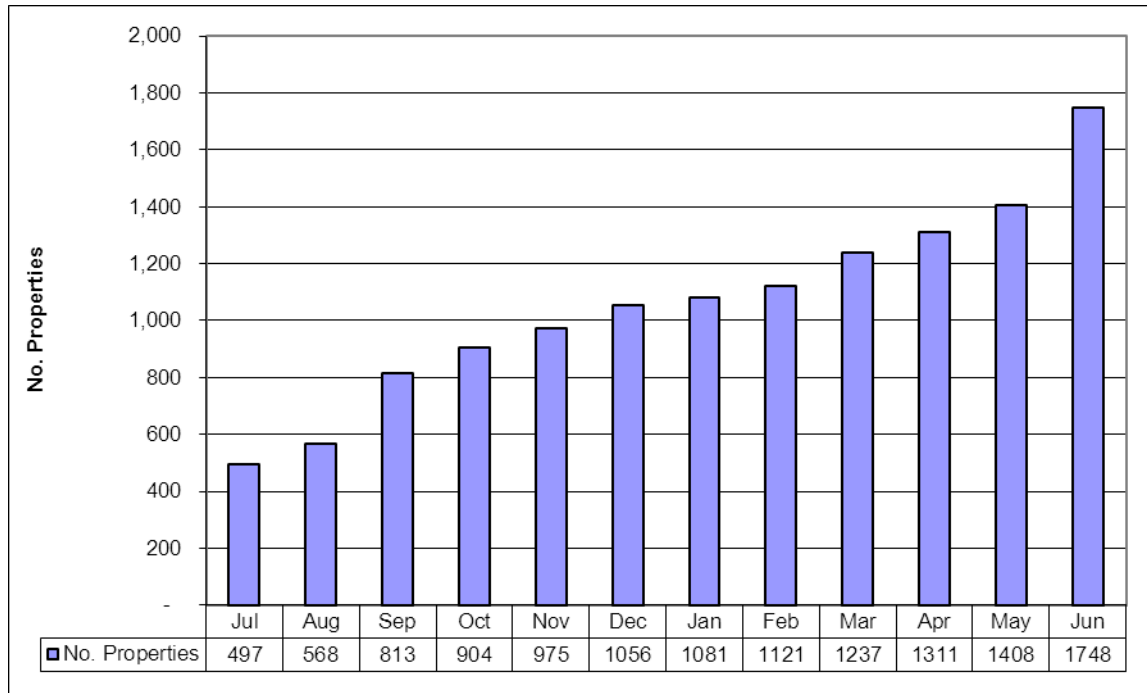
Water main breaks and leaks are generally reported to Hunter Water by members of the community through the customer contact centre. Information collected from the person reporting the problem is used to categorise breaks and leaks as a Priority 1, 2 or 3 maintenance tasks (Priority 1 being the highest, most urgent, priority). Generally category 3 maintenance tasks involve minor leaks where there is a good chance that the work to repair the main can be undertaken without necessitating a water main shutdown. That is, a repair clamp can be installed on the main under pressure. From this perspective category 3 maintenance tasks are often scheduled for times which may be a number of days after the initial call.

Category 3 jobs are therefore considered to be scheduled jobs in terms of work allocation for resource management but they are not deemed to be planned jobs in the context of planned or unplanned shutdowns for customers. As such they have not been incorporated into these statistics.

2.1.2.2 Performance

Figure 2-3 shows the performance against this indicator for planned interruptions not commencing on time.

Figure 2-3 Properties Affected by Planned Interruptions not Commencing on Time 2011-12 (cumulative no. of properties year to date)



2.1.2.3 Comment

The incidence of properties affected by planned interruptions not commencing on time has decreased since last year with 43 jobs not starting at the advertised time. Some of the common reasons for the delay were complications with the shutdown, machinery issues, traffic controlling difficulties and adverse weather conditions.

2.1.3 Multiple Water Interruptions (planned and unplanned)

(MRP Identifier: OL WSR 2)

2.1.3.1 Indicator and Explanatory Notes

“Occurrence of water interruptions to affected properties (i.e. the number of properties experiencing two, three, four, five or more Planned and Unplanned water interruptions).”

For each indicator, the figures show the number of properties affected by multiple water interruptions on two or more occasions.

Figure 2-4 Multiple Planned Interruptions to Affected Properties 2011-12 (cumulative no. of properties year to date)

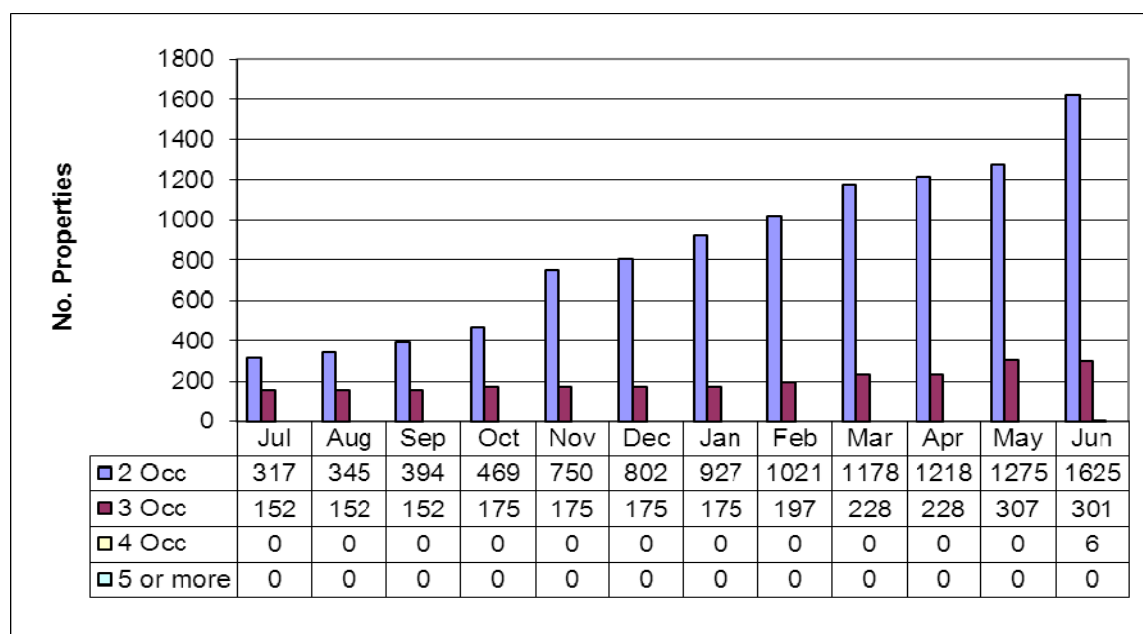
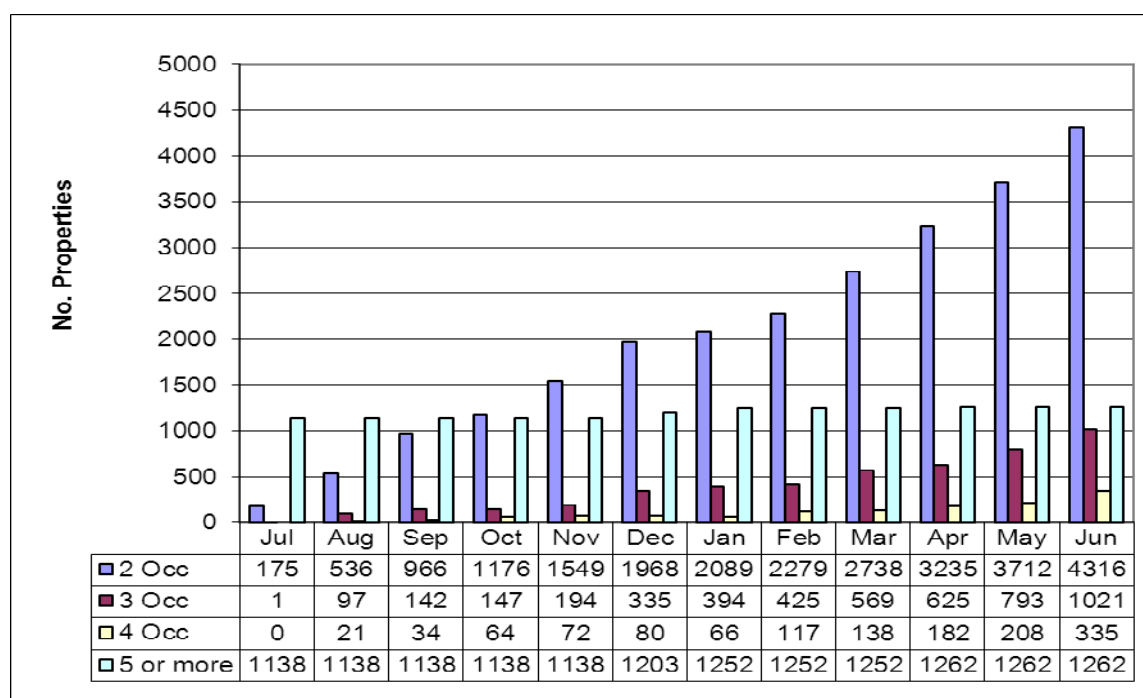


Figure 2-5 Multiple Unplanned Interruptions to Affected Properties 2011-12 (cumulative no. of properties year to date)



2.1.3.2 Comment

There has been a general increase in the ratio of properties affected by planned and unplanned interruptions. The total number of properties affected by multiple unplanned interruptions fell by 30 per cent compared to last year while the number of properties affected by multiple planned interruptions fell by 17 per cent. The marked increase in the number of properties that experienced

five or more unplanned interruptions last year was caused by a 500mm main break at Maitland in July that triggered five additional breaks in the same vicinity.

The trend towards planned outages means there was a real reduction in inconvenience to our customers.

2.1.4 Water Supply Interruptions Affecting 250 Properties or More

(MRP Identifier: OL WSR-3)

2.1.4.1 Indicator and Explanatory Notes

“Events leading to a planned or unplanned water interruption where 250 or more properties experience an interruption of over five hours duration.”

Table 2-1 Planned and Unplanned Interruptions Affecting more than 250 Properties for more than 5 hours

Job No	Date of Interruption	Location - Street, Suburb		No. Props	Duration (hrs)	Comments	Interruption Type
359993	4-Jul-11	All streets	Boat Harbour	399	5.9	Air scouring	Planned
360624	1-Jul-11	Various streets	Coal Point	311	5.3	Air scouring	Planned
375382	1-Dec-11	Faul St	Adamstown Heights	398	5.5	200mm main break	Unplanned
379964	16-Feb-12	High St	The Hill	306	5.5	Replace stop valves	Unplanned

2.1.4.2 Comment

There were four outages where more than 250 customers were affected, however no interruption affected more than 400 customers or exceeded six hours. Outages were caused by planned interruptions for air cleaning to improve water quality and replacement of critical valves and an unplanned interruption caused by a 200mm main break at Adamstown Heights. The valve replacement was a planned job until problems were encountered that expanded the shutdown area and increased the number and duration of properties affected. As this outage did not meet the advertised conditions it has been classified as unplanned.

These four jobs accounted for about one third of the properties affected by planned and unplanned interruptions of more than five hours last year.

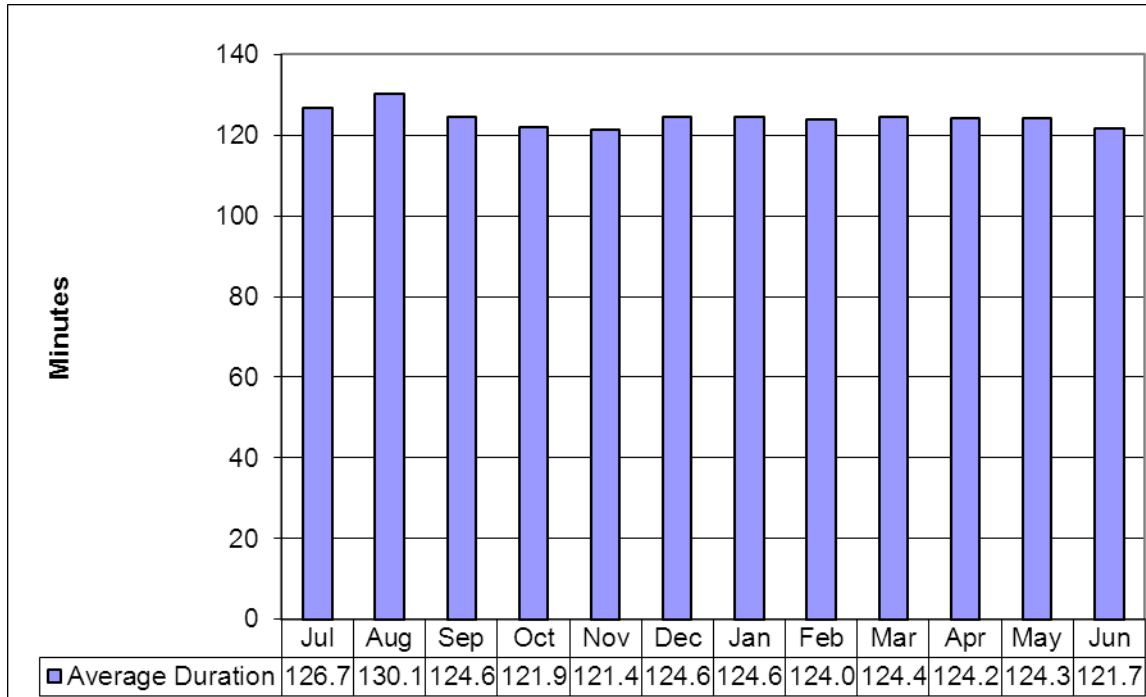
2.1.5 Average Duration of Unplanned Interruptions

(MRP Identifier: NWI-C15)

2.1.5.1 Indicator and Explanatory Notes

“Average duration of an unplanned interruption – water (minutes).”

Figure 2-6 Average Duration of an Unplanned Water Interruption 2011-12 (minutes)



2.1.5.2 Comment

The average time taken to repair an unplanned water interruption has decreased by nineteen minutes since last year. This indicator is driven by reticulation mains which comprise 92 per cent of breaks. Breaks in trunk mains which take much longer to repair (324 minutes on average) are a small proportion of the whole.

Repair times are affected by external factors such as traffic, the need for specialised plant and supply of tankers etc.

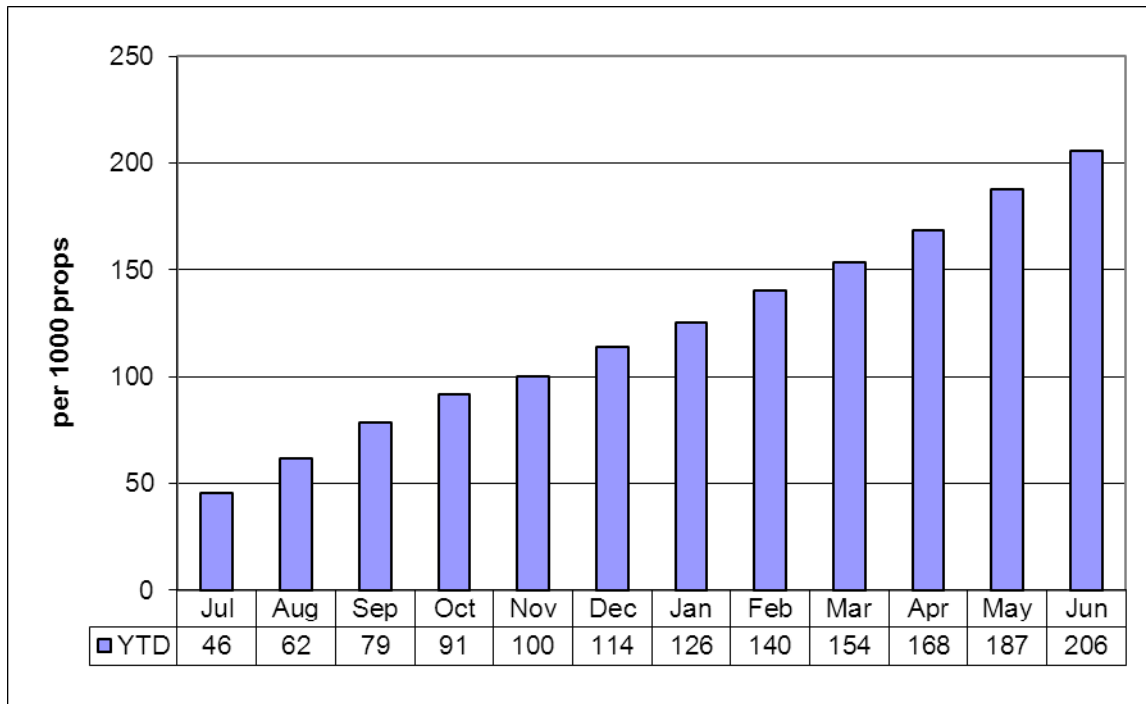
2.1.6 Water Supply Interruption Frequency

(MRP Identifier: NWI-C17. 2009 NWI Indicator Number C17)

2.1.6.1 Indicator and Explanatory Notes

“Customer unplanned interruption frequency – water (per 1000 properties)”.

Figure 2-7 Average Frequency of Unplanned Water Interruptions 2011-12 (per 1000 properties)



2.1.6.2 Comment

There were 206 unplanned customer interruptions per 1000 properties for the year. This is a reduction of 20 per cent from last year’s performance. This result is consistent with the reduction in the number of unplanned outages and the trend to planned interruptions.

2.2 Water Pressure

2.2.1 Properties Experiencing One or More Pressure Incidents

(MRP Identifier: WSR-4A)

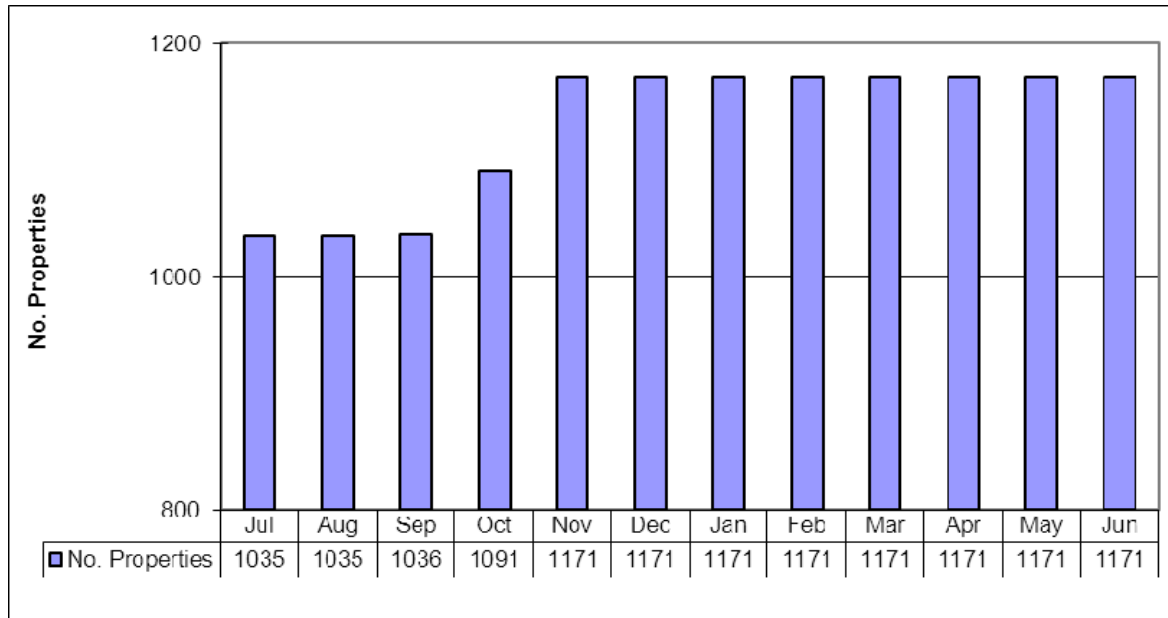
2.2.1.1 Indicator and Explanatory Notes

“The number of properties experiencing one or more water pressure failures where the pressure failure is:

- *Occasional or recurrent, but not permanent*
- *Permanent low pressure*

This includes properties in known low pressure areas and properties identified by system modelling.”

Figure 2-8 Properties Experiencing One or More Pressure Incidents 2011-12 (cumulative no. year to date)



2.2.1.2 Comment

This indicator is determined using maximum daily water demands experienced and properties predicted by network modelling to be impacted as a result, including confirmed low pressure events. The result for 2011-12 was lower than that experienced last year due to the milder weather conditions. We expect two step changes in this graph due to the spring and summer demand peaks, however due to the prolonged wet periods and consequent lower demands the maximum daily demand for the year was recorded in November and not exceeded in the summer months.

2.2.2 Properties Experiencing More than one Verified Pressure Incident

(MRP Identifier: OL WSR-4B)

2.2.2.1 Indicator and Explanatory Notes

“Properties not in a low pressure area experiencing more than one incident in a financial year.

- *This indicator is intended to pick up repeat pressure events that occurred outside of known low pressure areas:*
- *Areas designated as permanently below 20 metres pressure .*

Areas that may have fallen below 20 metres pressure (based on computer modelling) under prevailing water demands during the licence period.”

In this reporting period, no property outside of known low pressure areas experienced more than one pressure incident.

2.2.2.2 Comment

One verified low pressure incident was reported from outside the known low pressure areas, and was resolved by maintenance staff.

2.3 Sewage Overflows

2.3.1 Uncontrolled Sewage Overflows in Dry Weather

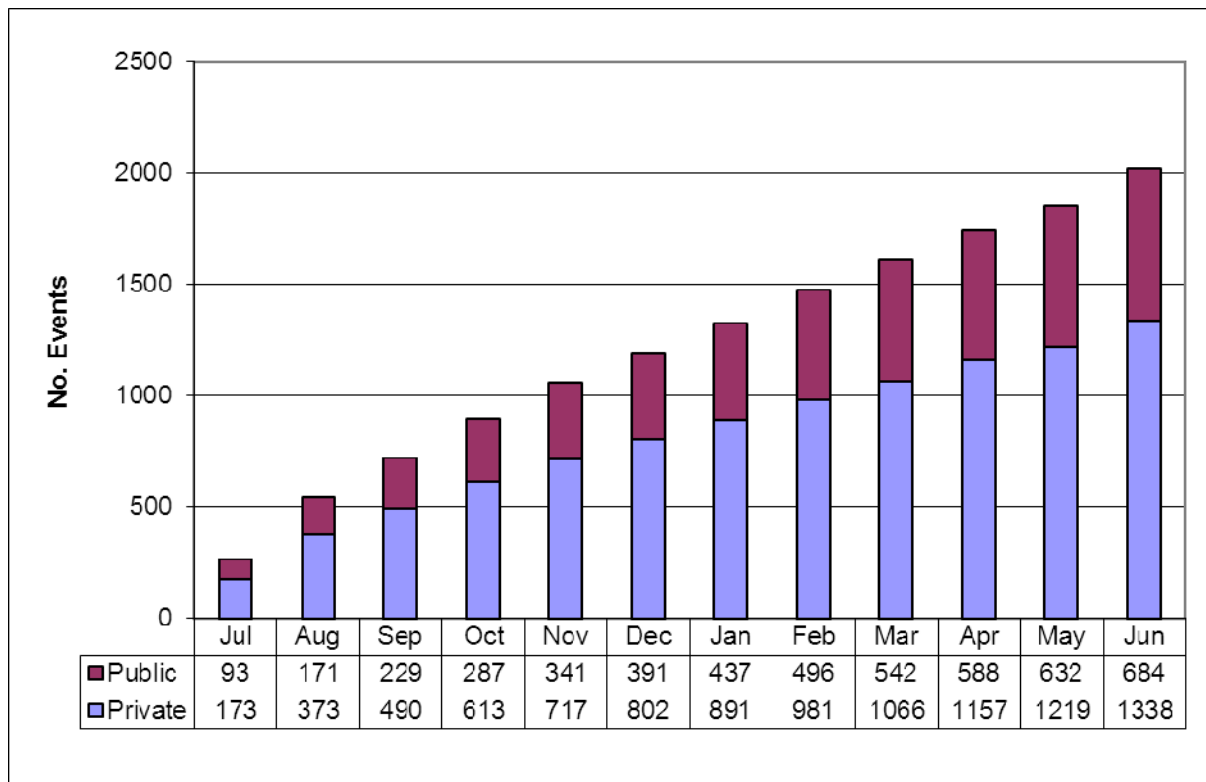
(MRP Identifier: OL SSR-1A)

2.3.1.1 Indicator and Explanatory Notes

“Number of uncontrolled sewage overflows (dry weather)”.

A dry weather sewage overflow is defined as one caused by an identified blockage in the sewerage system or a failure not related to capacity. The indicator presents data for both public and private land.

Figure 2-9 Uncontrolled Sewage Overflows – Dry Weather 2011-12 (cumulative no. year to date)



2.3.1.2 Comment

The incidence of dry weather sewage overflows has decreased by thirty per cent in comparison to last year and is the lowest result for the last three years.

A number of factors have had a bearing on this result. We have experienced a very dry year (2009-10) followed by two wetter years where rainfall increased by 47 per cent and then 37 per cent respectively. This weather pattern has seen increased root intrusion into the mains and subsequent overflows in 2009-10. Blockages were located and cleared in 2010-11 as increased rainfall

highlighted areas with marked root intrusion leaving the mains with less blockages for the 2011-12 year.

Work practices have also had an effect on the level of overflows. Preventive jetting may be used where maintenance staff detect high levels of root intrusion and mains may be jetted from manhole to manhole at the discretion of first response staff. Targeted CCTV and patchlining has also been used extensively in areas with repeat events within twelve months.

2.3.2 Uncontrolled Sewage Overflows in Wet Weather

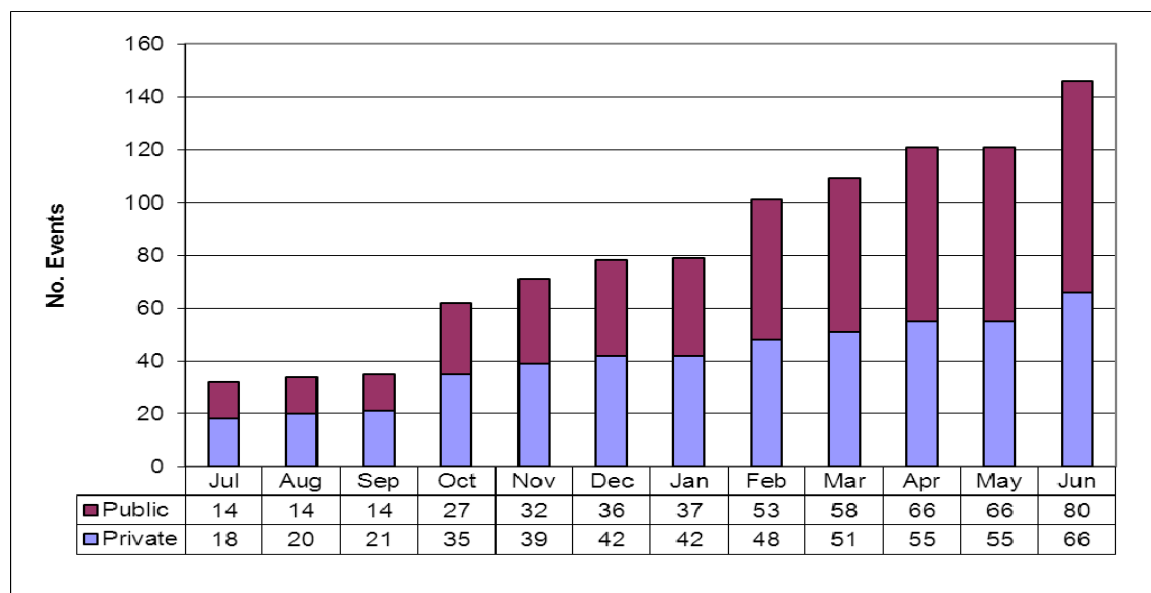
(MRP Identifier: OL SSR-1B)

2.3.2.1 Indicator and Explanatory Notes

“Number of uncontrolled sewage overflows (wet weather)”.

A wet weather sewage overflow is defined as an overflow that cannot be attributed to a blockage as in dry weather sewage overflows defined for the previous indicator. Wet weather sewage overflows generally result from insufficient system capacity to deal with higher flows in the network as a result of rainfall inflow and infiltration to the system.

Figure 2-10 Uncontrolled Sewage Overflows – Wet Weather 2011-12 (cumulative no. year to date)



2.3.2.2 Comment

The level of wet weather (capacity related) sewage overflows has increased in 2011-12. This has been attributed to sustained La Niña¹ conditions since mid-2010 and a general increase in rainfall and several severe storms. Wet weather overflows highlight lack of system capacity to cope with a sudden influx of water during severe storms. The duration of the impact of the storm is usually short-lived with flows returning to normal relatively quickly.

¹ The term La Niña refers to the extensive cooling of the central and eastern Pacific Ocean. In Australia (particularly eastern Australia), La Niña events are associated with increased probability of wetter conditions.

In 2011-12, Hunter Water carried out planned rehabilitation of 26.9 kilometres of mains as part of inflow and infiltration programs. This means that a total of approximately 88 kilometres of the worst performing mains have been lined in the last 5 years.

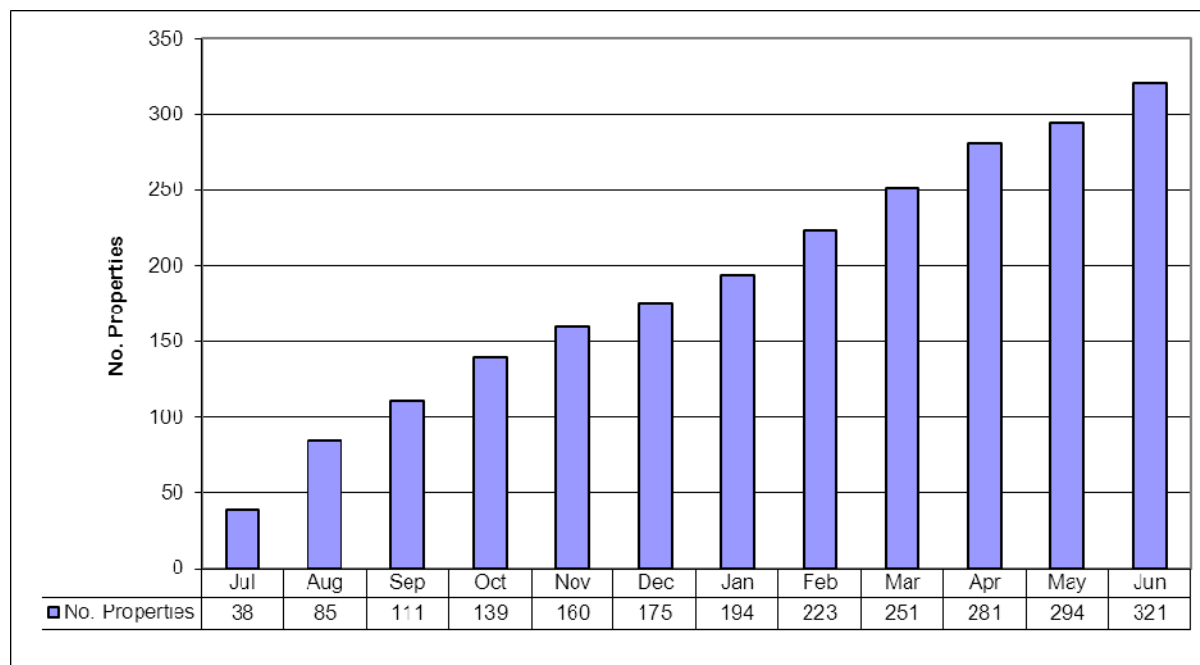
2.3.3 Private Properties Experiencing More than One Dry-weather Sewage Overflow

(MRP Identifier: OL SSR-1C)

2.3.3.1 Indicator and Explanatory Notes

“Number of properties affected by uncontrolled sewage overflow in dry weather where the period since the last uncontrolled sewage overflow in dry weather on that property is less than 12 months”.

Figure 2-11 Properties Experiencing More than One Dry-weather Overflow 2011-12 (cumulative no. year to date)



2.3.3.2 Comment

The number of private properties experiencing a repeat dry weather sewage overflow event in the twelve month period has decreased in line with the general reduction in overflow levels. Hunter Water has employed a range of programs to manage sewage overflows and to reduce repeat events, including patch lining and use of more powerful jetting machines to clear tree roots and blockages.

The result this year is the second best achieved since 2002-03.

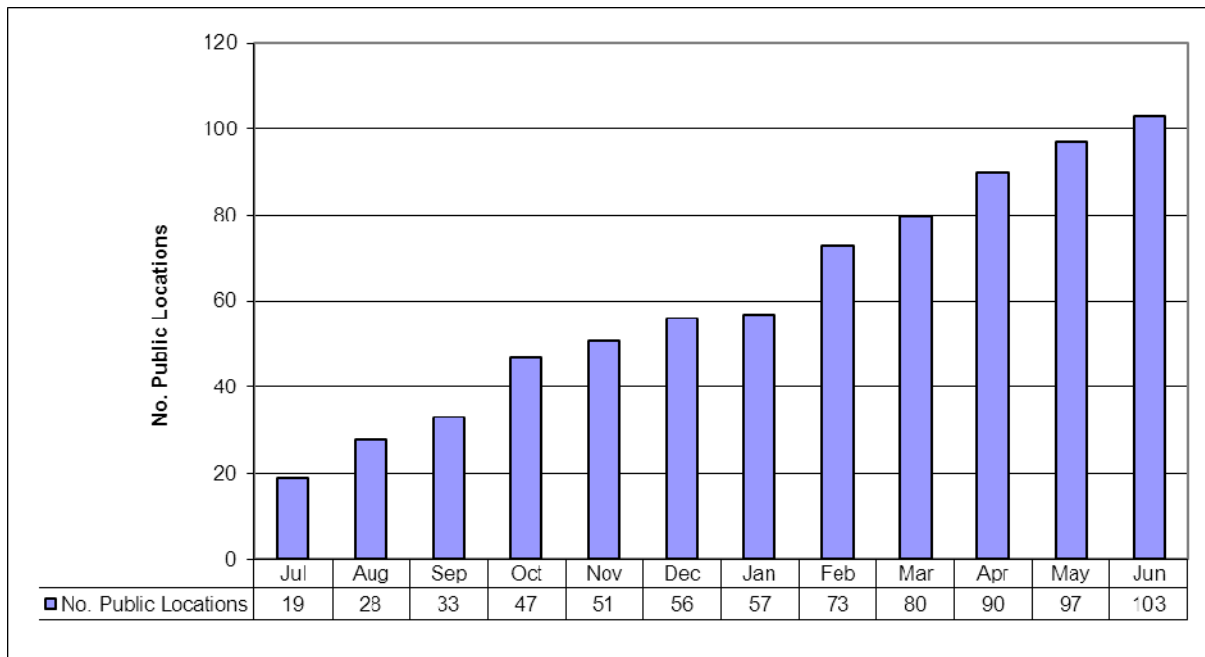
2.3.4 Sewage Overflows to Public Land

(MRP Identifier: OL SSR-1D)

2.3.4.1 Indicator and Explanatory Notes

“Number of public property locations affected by more than one sewage overflow (wet or dry weather) where the period since the last sewage overflow at that location is less than 12 months”.

Figure 2-12 Repeat Sewage Overflows on Public Land 2011-12 (cumulative no. of locations year to date)



2.3.4.2 Comment

The general decrease in the incidence of sewage overflows is reflected in the impact on public land. There were one third less public locations affected by repeat sewage overflows than last year. This result is the best in the last three years in this category. The impact of repeat wet weather overflows was negligible.

2.3.5 Cause of Dry Weather Sewage Overflows on Private Land

(MRP Identifiers: OL SSR-1E, OL SSR-1F, OL SSR-1G)

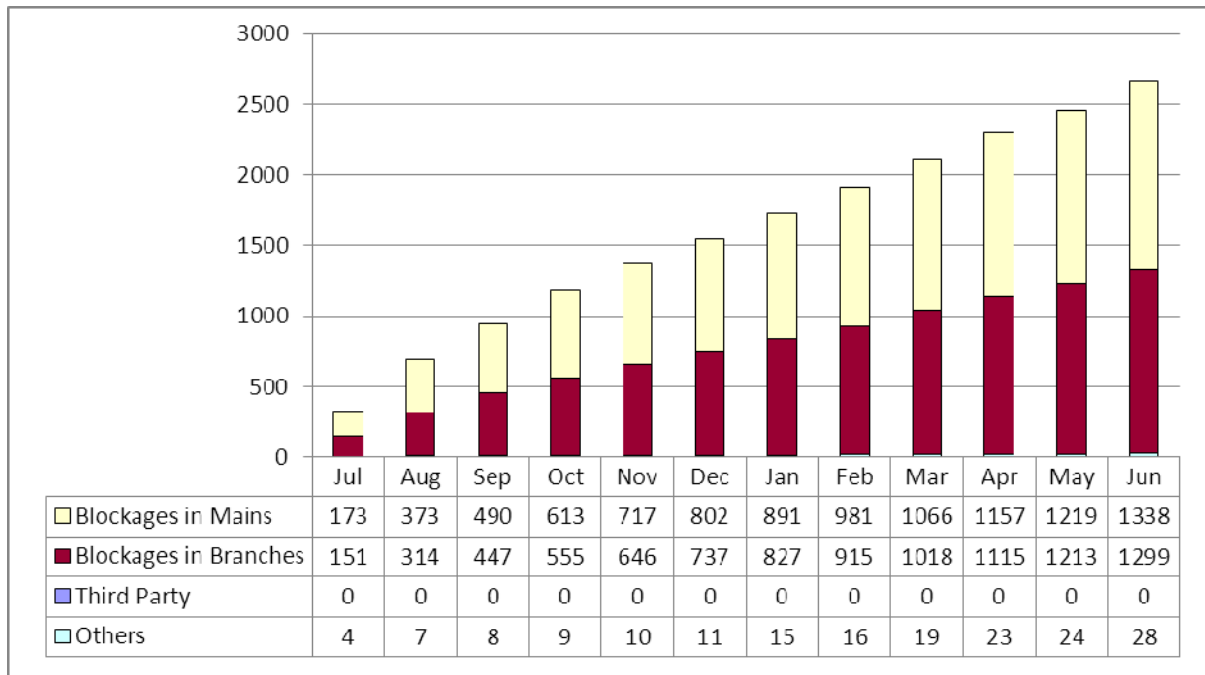
2.3.5.1 Indicator and Explanatory Notes

“The number of uncontrolled sewage overflows (other than on public land) in dry weather caused or resulting from:

- a) A blockage in the main pipe
- b) A blockage in a branch pipe
- c) Third party damage; or

d) An event other than one described in (a), (b) or (c)”

Figure 2-13 Cause of Dry Weather Sewage Overflows on Private Land 2011-12 (cumulative no. per month)



2.3.5.2 Comment

The level of dry weather overflows on private land is the lowest in three years. The majority of dry weather overflows were caused by blockages in either the main or branch (or both) and were mostly attributable to tree root intrusion. This can be attributed to location and removal of pre-existing root problems and less need for roots to regrow or to seek water under the wetter conditions. The total number of dry weather sewage overflows has decreased markedly compared to last year.

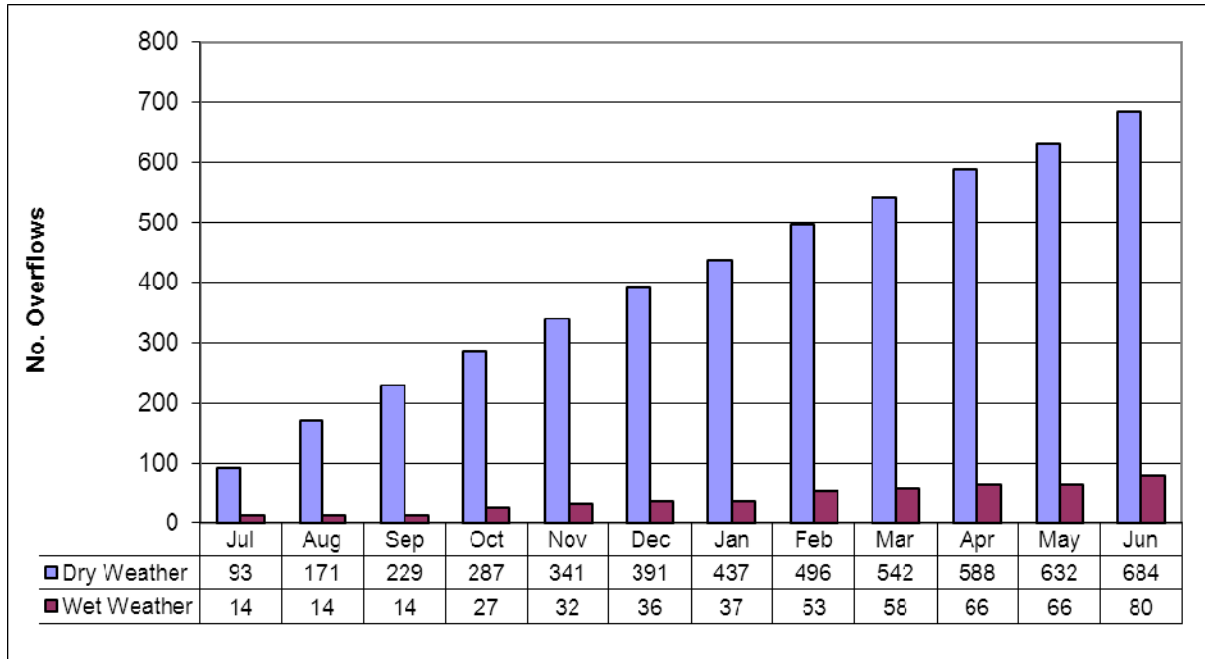
2.3.6 Number of Sewage Overflows on Public Land

(MRP Identifier: OL SSR-2)

2.3.6.1 Indicator and Explanatory Notes

“Number of uncontrolled sewage overflows on public property in dry or wet weather”.

Figure 2-14 Sewage Overflows on Public Land 2011-12 (cumulative no. year to date)



2.3.6.2 Comment

The incidence of sewage overflows on public land has decreased, compared with last year’s result, in line with the overall decrease in the level of overflows, although wet weather overflows have increased. The result is comparable with results obtained in 2007-08 and 2008-09. This performance is attributed to the change in climatic conditions as previously described.

2.3.7 Response to Priority 1 Sewage Overflows

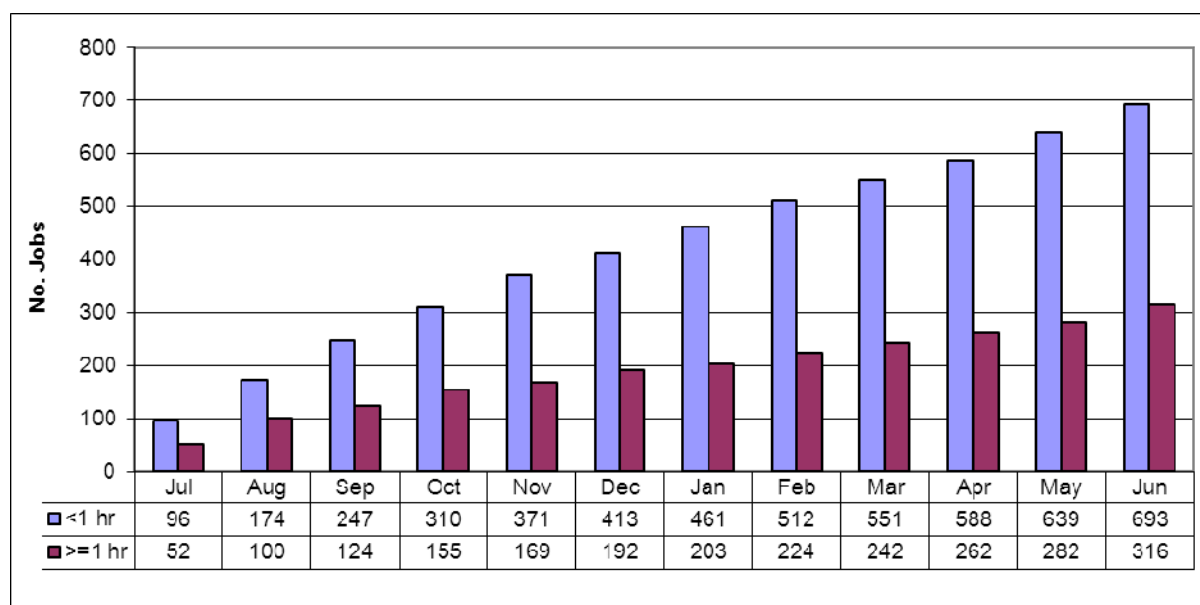
(MRP Identifier: OL SSR-3A)

2.3.7.1 Indicator and Explanatory Notes

“Number of priority 1 sewage overflows responded to in less than and more than one hour”.

There is a requirement in Hunter Water’s maintenance service agreements to respond to priority 1 sewage overflows within one hour. A priority 1 sewage overflow is defined as ‘a major failure to contain sewage within the system or any problem affecting many users’. They are typically caused by a blockage, collapse, break or overloading of the sewerage system.

Figure 2-15 Response to Priority 1 Sewage Overflows 2011-12 (cumulative no. of jobs year to date)



2.3.7.2 Comment

The number of priority 1 sewage overflows decreased by 18 per cent compared to last year. Of the 1,009 events, 91.3 per cent were responded to within two hours, and 98.4 per cent of the jobs (993) were responded to inside four hours. The review of work practices and manning levels to improve performance is ongoing.

2.3.8 Response to Priority 2 Sewage Overflows

(MRP Identifier: OL SSR-3B)

2.3.8.1 Indicator and Explanatory Notes

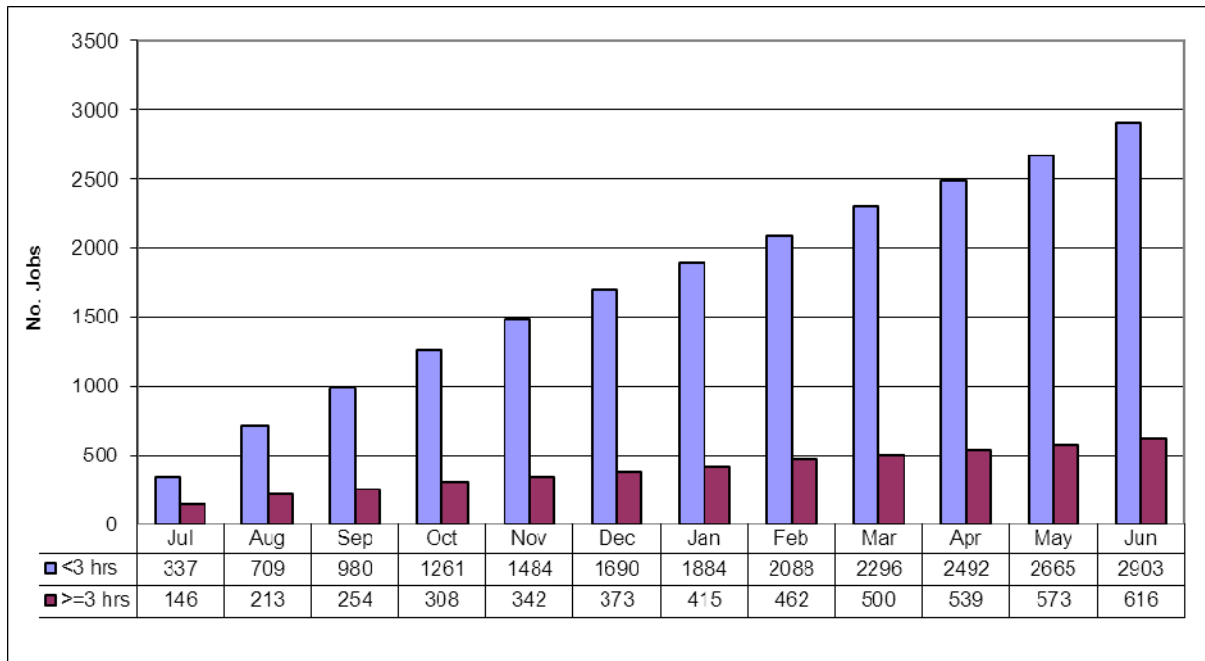
“Number of Priority 2 sewage overflows responded to in less than and more than 3 hours”.

There is a requirement in Hunter Water’s maintenance service agreements to respond to priority 2 sewage overflows within three hours, where these are called in within normal working hours. Priority 2 jobs that are reported to Hunter Water outside of normal working hours are responded to the next working day.

Generally a priority 2 job will be a minor sewage overflow that is very localised in effect. These overflows do not have any significant environmental impact nor do they provide major inconvenience to customers. Given the type of assets from which priority 2 overflows occur, the overflows are generally of small volume and intermittent in nature.

It is for these reasons, that there will always be a number of priority 2 jobs that show a response time in excess of three hours.

Figure 2-16 Response to Priority 2 Sewage Overflows 2011-12 (cumulative no. of jobs year to date)



2.3.8.2 Comment

The number of Priority 2 jobs decreased by approximately 22 per cent compared to last year and about 82 per cent of jobs were responded to within 3 hours. Of the 3,519 Priority 2 jobs received, 87 per cent (3,062) were responded to within 5 hours. This result is a small improvement on last year's result.

2.3.9 Average Sewer Break or Choke Repair Time

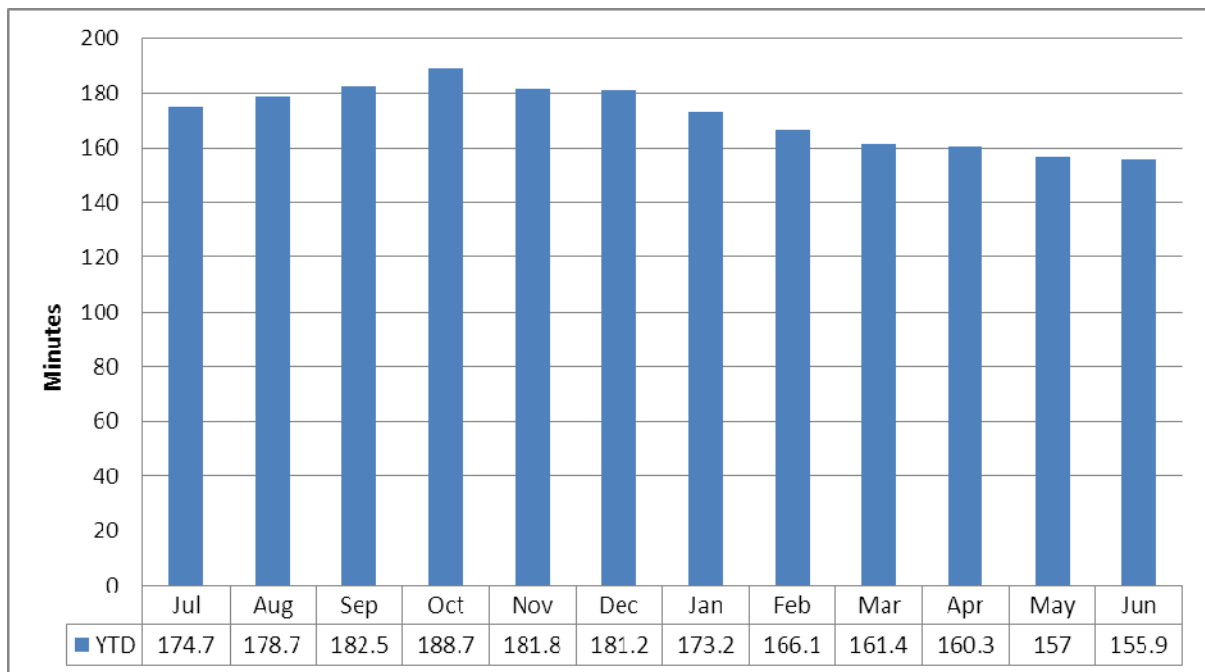
(MRP Identifier: NWI-C16)

2.3.9.1 Indicator and Explanatory Notes

"Average sewerage interruption (minutes)".

It should be noted that this indicator retains the original Operating Licence indicator name (relating to break and choke repair time) but is now redefined to match the revised NPR indicator C16. The intent of the original Operating Licence indicator and C16 is considered to be the same.

Figure 2-17 Average Sewer Interruption 2011-12 (Average year to date)



2.3.10 Sewage Overflows Reported to Environmental Regulator

The 2009 NPR Definitions introduced a new indicator “sewage overflows reported to environmental regulator” E13¹. Following a review of the Monitoring and Reporting Protocol this indicator is now reported in the Environmental Performance Indicators Report and as an NPR indicator.

In the light of the changed definition and because the indicator is reported elsewhere, it is no longer included in this report.

¹ See National Performance Framework 2009 definitions handbook, page 64.

3 Hunter Water Service Quality and System Performance Report 2010-11 checklist

3.1 Operating Licence System Performance Standards Checklist

Table 3-1 Operating Licence System Performance Standards Checklist

Section In Licence	Item description	Target	Actual	Compliant yes/ no
Water Pressure				
4.1.1	No more than 4,800 properties of water customers in the licence year will experience a low pressure failure of less than 20 metres head for a continuous period of 30 minutes or more as measured at the point of connection to Hunter Water's main.	<4,800 Properties	1,171 Properties	Yes
4.5.1	By no later than 1 September each year, Hunter Water must report to IPART on its compliance with the Water Pressure Standard, the Water Continuity Standard and the Sewage Overflow Standard.			Yes
4.5.2 (a)	By no later than 1 September each year, Hunter Water must report to IPART on the number of properties that experienced a Water Pressure Failure.			Yes
Water Continuity				
4.2.1	No more than 10,000 properties served will experience an unplanned water interruption exceeding 5 hours in duration in the licence year.	<10,000 Properties	1,855 Properties	Yes
	No more than 5,000 properties served will experience 3 or more unplanned water interruption exceeding 1 hour in duration in the licence year.	<5,000	1,836 Properties	Yes
4.5.1	By no later than 1 September each year, Hunter Water must report to IPART on its compliance with the Water Pressure Standard, the Water Continuity Standard and the Sewage Overflow Standard.			Yes

Section In Licence	Item description	Target	Actual	Compliant yes/ no
4.5.2 (b)	By no later than 1 September each year, Hunter Water must report to IPART on the number of properties that experienced Planned Interruptions or an Unplanned Interruptions.			Yes
Sewage Overflows				
4.3.1	No more than 5,000 uncontrolled dry weather sewage overflow events in the licence year that impact on private property.	<5,000 Properties	2,799 Properties	Yes
	No more than 45 properties experience 3 or more uncontrolled dry weather sewage overflow events in the licence year that impact on private property.”	<45 Properties	14 Properties	Yes
4.5.1	By no later than 1 September each year, Hunter Water must report to IPART on its compliance with the Water Pressure Standard, the Water Continuity Standard and the Sewage Overflow Standard			Yes
4.5.2 (c)	By no later than 1 September each year, Hunter Water must report to IPART on the number of Uncontrolled Sewage Overflows.			Yes

3.2 Operating Licence System Performance Indicators Checklist

Table 3-2 Operating Licence System Performance Indicators Checklist

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL WSR-1A	Number of properties affected by planned water interruptions and duration of interruption.	<p>Water Interruption – any event causing a total loss of water supply due to the failure of a water asset. It excludes those caused by bursts or leaks in the property service (mains to meter connection) or planned meter replacement. Instances of reduced service level such as low pressure are excluded.</p> <p>Planned water interruption – water interruption initiated by the Corporation for which at least 24 hours notice has been given to the customer.</p> <p>Duration – As defined in the Operating Licence clause 14.1 (Planned Water Interruption).</p> <p>Property affected - As defined in Operating Licence clause 4.2.2</p> <p><u>Data Sources</u></p> <p>SCADA data, modelling results, field reports and customer calls</p>	OL Clause 4.5.2(b)	Section 2.1.1

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL WSR-1B	Number of properties affected by unplanned water interruptions and durations of interruption.	<p>Water Interruption – (Definition as per OL WSR-1)</p> <p>Unplanned water interruption – an outage when the customer has not received at least 24 hours notice of the interruption. This includes outages where the duration exceeds that originally notified. In this case the entire outage is classed as unplanned.</p> <p>Duration - As defined in Operating Licence clause 14.1 (Unplanned Water Interruption). If a customer notifies Hunter Water they are without water, the duration commences at the time of notification. If the corporation is responding to a notification of a broken main, unless this notification also indicates a loss of supply, the duration commences once the break is isolated (if repairs are not being done under pressure) to when “normal” service is restored.</p> <p>Property affected – (Definition as per OL WSR-1A)</p> <p><u>Data Sources</u> As per OL WSR-1A</p>	OL Clause 4.5.2(b)	Section 2.1.1
OL WSR-1C	Number of properties affected by a planned water interruption that did not commence at the time specified in the notice.	As per OL WSR-1A		Section 2.1.2

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL WSR-2	Occurrence of water interruptions to affected properties (i.e. the number of properties experiencing 2,3,4,5 or more Planned and Unplanned water interruptions)	<p>Water Interruption – (Definition as per OL WSR-1A)</p> <p>Planned water interruption – (Definition as per OL WSR-1A)</p> <p>Unplanned water interruption – (Definition as per OL WSR-1B)</p> <p>Property affected – (Definition as per OL WSR-1A)</p> <p><u>Data Sources</u></p> <p>As per OL WSR-1A</p>		Section 2.1.3
OL WSR-3	Events leading to planned or unplanned water interruption where 250 or more properties experience an interruption of over 5hrs duration.	<p>Water Interruption – (Definition as per OL WSR-1A)</p> <p>Planned water interruption – (Definition as per OL WSR-1A)</p> <p>Unplanned water interruption – (Definition as per OL WSR-1B)</p> <p>Property affected – (Definition as per OL WSR-1A)</p>		Section 2.1.4
OL WSR-4A	Number of properties experiencing one or more water pressure failures/incidents	<p>Pressure failure/incident – As defined in Operating Licence clause 4.1.2. Excludes low pressure areas identified through hydraulic modelling.</p> <p>Property affected – As defined in Operating Licence clause 4.1.3</p>	OL Clause 4.5.2(a)	Section 2.2.1
OL WSR-4B	Number of properties not located in a low pressure area that experienced more than one pressure incident in a financial year.	<p>Low Pressure Area – identified through hydraulic system modelling as described in the Monitoring and Reporting Protocol section 5.1.5.</p> <p>Pressure failure/incident – (Definition as per OL WSR-4A)</p>		Section 2.2.2

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL SSR–1A	Number of uncontrolled sewage overflows (dry weather)	<p>Dry weather overflow – a sewage overflow caused by identified blockage in the sewerage system (e.g. tree roots intrusion) or a system failure not related to capacity (e.g. pumping station failure).</p> <p>Sewage overflow – the discharge of untreated, diluted or partially treated sewage from the sewerage system which may occur in dry weather or in wet weather.</p>	OL Clause 4.5.2(c)	Section 2.3.1
OL SSR–1B	Number of uncontrolled sewage overflows (wet weather)	<p>Sewage overflow – (Definition as per OL SSR-1A)</p> <p>Uncontrolled sewage overflow – As defined in the Operating Licence clause 14.1</p> <p>Wet weather overflow – an overflow that cannot be attributed to a blockage as per dry weather overflows above. Wet weather overflows generally result from insufficient system capacity to deal with high flows due to surface water infiltration.</p>	OL Clause 4.5.2(c)	Section 2.3.2
OL SSR–1C	Number of properties affected by uncontrolled sewage overflow in dry weather where the period since the last uncontrolled sewage overflow in dry weather on that property is less than 12 months.	<p>Sewage overflow – (Definition as per OL SSR-1A)</p> <p>Uncontrolled sewage overflow – As defined in the Operating Licence clause 14.1</p>		Section 2.3.3

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL SSR–1D	Number of public property locations affected by more than one sewage overflow (wet or dry weather) where the period since the last sewage overflow at that location is less than 12 months.	Public property – As defined in the Operating Licence clause 14.1 Sewage overflow – (Definition as per OL SSR-1A)		Section 2.3.4
OL SSR–1E	Number of uncontrolled sewage overflows resulting from blockage in main pipe	Sewage overflow – (Definition as per OL SSR-1A)		Section 2.3.5
OL SSR–1F	Number of uncontrolled sewage overflows resulting from blockage in branch pipe	Sewage overflow – (Definition as per OL SSR-1A)		Section 2.3.5
OL SSR–1G	Number of uncontrolled sewage events due to third party damage	Sewage overflow – (Definition as per OL SSR-1A)		Section 2.3.5
OL SSR–2	Number of uncontrolled sewage overflows on public property in dry or wet weather	Public property - As defined in the Operating Licence clause 14.1 Sewage overflow – (Definition as per OL SSR-1A) Uncontrolled sewage overflow – As defined in the Operating Licence clause 14.1		Section 2.3.6

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
OL SSR-3A	Number of Priority 1 sewage overflows responded to in less than and more than 1 hour	<p>Priority 1 sewage overflows refers to overflow events that result in or contribute to personal injury, disease or significant damage to the environment</p> <p>Response time – the time elapsed from receipt of the complaint until arrival on site to restore service as advised by the field employee and recorded on AOMS</p>		Section 2.3.7
OL SSR-3B	Number of Priority 2 sewage overflows responded to in less than and more than 3 hours	<p>Priority 2 sewage overflows refers to overflow events that result in minor damage to property or the environment while not posing a significant health risk.</p> <p>Response time – (Definition as per OL SSR-3A)</p>		Section 2.3.8

3.3 National Performance Report Indicators Checklist

Table 3-3 National Performance Report Indicators Checklist

Identifier	Indicator	Definitions & Interpretation (Hunter Water Context)	Requirement Source	Located in Report
NWI-C15	Average duration of an unplanned interruption – water (minutes)	N.B. The water interruption definitions listed in the Operating Licence Water Continuity Standard do not apply to the reporting of the NWI indicators as this includes interruptions on the property service.	NWI	Section 2.1.5
NWI-C16	Average sewerage interruption (minutes)	The average time customer is without sewerage services for the reporting period. A sewerage interruption is any event causing a significant reduction of sewerage service due to any cause. It excludes those caused by breaks or chokes in the property connection sewer. As it is difficult to determine the full extent of sewerage service interruption in any event (e.g. even though there is a sewer break, a customer can still use their sewerage service like flushing a toilet), the time will be measured from when the corporation first became aware of the event to the time when service is restored. Determining number of customers affected is not required. N.B.: Excludes site restoration	NWI	Section 2.3.9
NWI-C17	Customer unplanned interruption frequency – water (per 1000 properties).	Property – excludes a body corporate or strata master. N.B. The water interruption definitions listed in the Operating Licence Water Continuity Standard do not apply to the reporting of the NWI indicators	NWI	Section 2.1.6