



## Drinking Water Quality Summary - December 2013

Hunter Water provides safe and reliable drinking water to over half a million customers in the lower Hunter. The drinking water we supply is routinely tested throughout our water supply systems. Results are based on samples representative of water supplied to customers' taps. Results for microbiological and key physical/chemical parameters are summarised below:

### Microbiological Water Quality 12 Months to December 2013 Inclusive

Parameter	Health / Aesthetic	Measure of Compliance	Regulatory Target	Whole of Hunter Water	Chichester Zone	Grahamstown Zone	Lemon Tree Passage Zone	Nelson/Anna Bay Zone	Gresford Zone
<i>E.coli</i>	Health	% of samples containing < 1 MPN per 100 ml	>98%	99.9%	100.0%	100.0%	99.4%	100.0%	100.0%

### Key Physical / Chemical Analytes December 2013

#### Whole of Hunter Water

Analyte	Health / Aesthetic	Units	ADWG Guideline <sup>2</sup>	Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>
pH	Aesthetic		6.5 - 9.2	7.6	7.6	7.6
Colour	Aesthetic	HU	15	5.0	5.0	5.1
Turbidity	Aesthetic	NTU	5	0.3	0.2	0.2
Chlorine	Health	mg/L	5	0.3	0.4	0.9
Aluminium	Aesthetic	mg/L	0.2	0.043	0.048	0.049
Copper	Health	mg/L	2	0.006	0.004	0.014
Fluoride	Health	mg/L	1.5	0.90	0.95	1.15
Iron	Aesthetic	mg/L	0.3	0.027	0.023	0.023
Lead	Health	µg/L	10	1.07	1.02	1.72
Manganese	Health	mg/L	0.5	0.006	0.005	0.02
Zinc	Aesthetic	mg/L	3	0.006	0.003	0.003
THMs	Health	µg/L	250	77.0	79.1	136.3

#### Water Quality Zones

Analyte	Health / Aesthetic	Units	ADWG Guideline <sup>2</sup>	Chichester Zone			Grahamstown Zone		
				Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>	Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>
pH	Aesthetic		6.5 - 9.2	7.7	7.8	7.8	7.5	7.5	7.5
Colour	Aesthetic	HU	15	5.0	5.0	5.1	5.0	5.0	5.1
Turbidity	Aesthetic	NTU	5	0.3	0.3	0.3	0.3	0.2	0.2
Chlorine	Health	mg/L	5	0.4	0.5	1.1	0.3	0.3	0.7
Aluminium	Aesthetic	mg/L	0.2	0.045	0.044	0.048	0.070	0.058	0.059
Copper	Health	mg/L	2	0.005	0.003	0.006	0.007	0.004	0.013
Fluoride	Health	mg/L	1.5	0.90	0.92	1.09	0.80	0.90	1.12
Iron	Aesthetic	mg/L	0.3	0.02	0.02	0.02	0.03	0.02	0.02
Lead	Health	µg/L	10	1.00	1.04	1.84	1.00	1.02	1.75
Manganese	Health	mg/L	0.5	0.008	0.007	0.032	0.005	0.003	0.011
Zinc	Aesthetic	mg/L	3	0.005	0.003	0.003	0.005	0.003	0.003
THMs	Health	µg/L	250	102.5	85.0	133.7	78.0	88.1	138.8

Analyte	Health / Aesthetic	Units	ADWG Guideline <sup>2</sup>	Lemon Tree Passage Zone			Nelson/Anna Bay Zone		
				Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>	Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>
pH	Aesthetic		6.5 - 9.2	7.5	7.5	7.5	7.4	7.4	7.4
Colour	Aesthetic	HU	15	5.0	5.0	5.2	5.0	5.0	5.1
Turbidity	Aesthetic	NTU	5	0.2	0.2	0.3	0.5	0.3	0.3
Chlorine	Health	mg/L	5	0.3	0.4	0.7	0.5	0.5	0.8
Aluminium	Aesthetic	mg/L	0.2	0.028	0.033	0.035	0.038	0.053	0.054
Copper	Health	mg/L	2	0.005	0.007	0.012	0.006	0.005	0.022
Fluoride	Health	mg/L	1.5	0.98	0.97	1.13	0.91	0.98	1.18
Iron	Aesthetic	mg/L	0.3	0.03	0.03	0.03	0.05	0.04	0.04
Lead	Health	µg/L	10	1.00	1.00	1.59	1.33	1.03	1.69
Manganese	Health	mg/L	0.5	0.004	0.006	0.035	0.006	0.004	0.010
Zinc	Aesthetic	mg/L	3	0.005	0.004	0.005	0.008	0.003	0.004
THMs	Health	µg/L	250	85.0	89.0	126.5	45.5	50.2	104.7

Analyte	Health / Aesthetic	Units	ADWG Guideline <sup>2</sup>	Gresford		
				Monthly Mean	12 Mths Mean	Licence Perf <sup>1</sup>
pH	Aesthetic		6.5 - 9.2	8.1	8.3	8.3
Turbidity	Aesthetic	NTU	5	0.2	0.1	0.2
Chlorine	Health	mg/L	5	0.5	0.3	0.7

<sup>1</sup> Licence performance result for each Physical / Chemical Analyte is determined as follows:

For health related characteristics, the objective is to be confident that the 95th percentile of results over the preceding 12 months is less than the guideline value.

This means that the upper bound of the 95% confidence interval for the 95th percentile should be less than the guideline value.

For water quality characteristics which are not health related, (ie aesthetic) the objective is to be confident that the mean value (or average) of results over the preceding 12 months is less than the guideline value.

This means that the upper bound of the 95% confidence interval for the mean should be less than the guideline value.

<sup>2</sup> Note that the Australian Drinking Water Guidelines (ADWG) specifies water quality standards that are considered safe for people to drink over an entire lifetime. Therefore compliance is based on a statistical measure of results rather than absolute figures

**Brief Explanation of Key Parameters:**

[Key Physical, Chemical and Microbiological Parameters](#)

or for more detail see:

[Australian Drinking Water Guidelines 2011](#)

Map showing water quality zones:

[Water Quality Zones at Hunter Water](#)