

### **Drinking Water Quality Summary - March 2016**

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:

#### Whole of Hunter Water

Whole of Hunter Water - key health analytes

Analyte	Units of measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)		% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be detected in 100mL	At least 98% of test results <1		99.94%	Yes
Analyte	Units of Measure	ADWG health	Performance standard	Average for	95th Percentile	Met performance
		guideline value	(assessment over previous 12 months)	Month	over the last 12 months	standard
Fluoride	mg/L	1.5		0.56	0.98	Yes
Chlorine	mg/L	5	95th percentile of test	0.71	1.50	Yes
Copper	mg/L	2	results less than	0.004	0.022	Yes
Lead	mg/L	0.01	respective ADWG health	0.002	0.001	Yes
Manganese	mg/L	0.5	guideline value	0.007	0.014	Yes
Trihalomethanes	mg/L	0.25		0.122	0.167	Yes

#### Whole of Hunter Water - key aesthetic analytes

Analyte	Units of Measure	ADWG aesthetic guideline value	Performance standard (assessment over previous 12 months)	Average for Month	12 month average result	Met performance standard
Iron	mg/L	0.3		0.030	0.030	Yes
Aluminium	mg/L	0.2	Average of test results	0.066	0.054	Yes
Copper	mg/L	1	less than respective	0.004	0.006	Yes
Zinc	mg/L	3	ADWG aesthetic guideline	0.004	0.005	Yes
Turbidity	NTU	5	value	0.3	0.3	Yes
True colour	HU	15		5	5	Yes
рН	pH units	6.5-9.2	Average of test results between 6.5 - 9.2 pH units	7.58	7.58	Yes

Brief explanation of key parameters:

or for more detail see:

Map showing water quality zones:

Key Physical, Chemical and Microbiological Parameters

Australian Drinking Water Guidelines 2011

Water Quality Zones at Hunter Water

### **Water Quality Zones**

Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)		% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be	At least 98% of test results		100.00%	Yes
		detected in 100mL	<1		100.0070	. 55
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	95th Percentile over the last 12 months	Met performance standard
Fluoride	mg/L	1.5	12 months)	0.71	0.93	Yes
Chlorine	mg/L	5	95th percentile of test	0.48	1.49	Yes
Copper	mg/L	2	results less than	0.005	0.008	Yes
_ead	mg/L	0.01	respective ADWG health	0.001	0.001	Yes
Manganese	mg/L	0.5	guideline value	0.009	0.014	Yes
Frihalomethanes	mg/L	0.25	-	0.156	0.158	Yes
Chichester Zone - I	key aesthetic analytes					
Analyte	Units of Measure	ADWG aesthetic	Performance standard	Average for	12 month average	Met performance
		guideline value	(assessment over previous	Month	result	standard
ron	mg/L	0.3	12 months)	0.029	0.028	Yes
Aluminium	mg/L	0.3	Average of test results	0.029	0.053	Yes
Copper	mg/L	1	less than respective	0.002	0.004	Yes
Zinc	mg/L	3	ADWG aesthetic guideline	0.005	0.004	Yes
Furbidity	NTU	5	value	0.4	0.4	Yes
True colour	HU	15	Value	5	5	Yes
oH	pH units	6.5-9.2	Average of test results	7.65	7.63	Yes
711	pri unio	0.5 5.2	between 6.5 - 9.2 pH units	7.00	7.00	163
Grahamstown Zone	e - key health analytes					
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be detected in 100mL	At least 98% of test results <1		99.89%	Yes
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	95th Percentile over the last 12 months	Met performance standard
luoride	mg/L	1.5		0.17	1.01	Yes
Chlorine	mg/L	5	95th percentile of test	0.80	1.54	Yes
Copper	mg/L	2	results less than	0.003	0.009	Yes
_ead	mg/L	0.01	respective ADWG health	0.001	0.001	Yes
Manganese	mg/L	0.5	guideline value	0.006	0.014	Yes
Γrihalomethanes	mg/L	0.25		0.131	0.178	Yes
Grahamstown Zone	e - key aesthetic analytes					
Analyte	Units of Measure	ADWG aesthetic	Performance standard	Average for	12 month average	Met performance
		guideline value	(assessment over previous 12 months)	Month	result	standard
ron	mg/L	0.3	12 months)	0.026	0.032	Yes
Aluminium	mg/L	0.2	Average of test results	0.075	0.078	Yes
Copper	mg/L	1	less than respective	0.003	0.006	Yes
Zinc	mg/L	3	ADWG aesthetic guideline	0.003	0.004	Yes
Turbidity	NTU	5	value	0.3	0.3	Yes
						Yes
			Average of test results			Yes
True colour pH	HU pH units	15 6.5-9.2	Average of test results between 6.5 - 9.2 pH units	5 7.53	5 7.55	

### **Water Quality Zones**

Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be detected in 100mL	At least 98% of test results <1		100.00%	Yes
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	95th Percentile over the last 12 months	Met performance standard
Fluoride	mg/L	1.5		0.87	0.99	Yes
Chlorine	mg/L	5	95th percentile of test	0.92	1.25	Yes
Copper	mg/L	2	results less than	0.007	0.009	Yes
_ead	mg/L	0.01	respective ADWG health	0.000	0.001	Yes
Manganese	mg/L	0.5	guideline value	0.003	0.008	Yes
Trihalomethanes	mg/L	0.25		0.147	0.138	Yes
l emon Tree Passac	ge Zone - key aesthetic analy	tes				
Analyte	Units of Measure	ADWG aesthetic	Performance standard	Average for	12 month average	Met performance
- Haryto	office of incasure	guideline value	(assessment over previous 12 months)	Month	result	standard
ron	mg/L	0.3		0.037	0.029	Yes
Aluminium	mg/L	0.2	Average of test results	0.045	0.033	Yes
Copper	mg/L	1	less than respective	0.007	0.006	Yes
Zinc	mg/L	3	ADWG aesthetic guideline	0.007	0.006	Yes
Turbidity	NTU	5	value	0.2	0.2	Yes
True colour	HU	15	-	5	5	Yes
ΡΗ	pH units	6.5-9.2	Average of test results between 6.5 - 9.2 pH units	7.57	7.56	Yes
Anna Bay / Nelson I	Bay Zone - key health analyte	es				
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be detected in 100mL	At least 98% of test results <1		100.00%	Yes
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	95th Percentile over the last 12 months	Met performance standard
Fluoride	mg/L	1.5	·	0.53	0.82	Yes
Chlorine	mg/L	5	95th percentile of test	0.82	1.39	Yes
Copper	mg/L	2	results less than	0.005	0.023	Yes
_ead	mg/L	0.01	respective ADWG health	0.005	0.001	Yes
Manganese	mg/L	0.5	guideline value	0.007	0.009	Yes
Trihalomethanes	mg/L	0.25	-	0.040	0.097	Yes
Anna Bay / Nelson I	Bay Zone - key aesthetic ana	lytes				
Analyte	Units of Measure	ADWG aesthetic	Performance standard	Average for	12 month average	Met performance
		guideline value	(assessment over previous 12 months)	Month	result	standard
ron	mg/L	0.3		0.063	0.005	Yes
Aluminium	mg/L	0.2	Average of test results	0.074	0.053	Yes
Copper	mg/L	1	less than respective	0.005	0.008	Yes
Zinc	mg/L	3	ADWG aesthetic guideline	0.005	0.006	Yes
Turbidity	NTU	5	value	0.3	0.2	Yes
rue colour	HU	15	-	5	5	Yes
oH.	pH units	6.5-9.2	Average of test results between 6.5 - 9.2 pH units	7.48	7.50	Yes

# **Water Quality Zones**

Gresford Zone - k	key health analytes					
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	% of E. coli results < 1 over the last 12 months	Met performance standard
E. coli	MPN/100mL	Should not be detected in 100mL	At least 98% of test results <1		100.00%	Yes
Analyte	Units of Measure	ADWG health guideline value	Performance standard (assessment over previous 12 months)	Average for Month	95th Percentile over the last 12 months	Met performance standard
Chlorine	mg/L	5	95th percentile of test results less than respective ADWG health guideline value	0.36	1.12	Yes
Gresford Zone - k	key aesthetic analytes	<u> </u>				
Analyte	Units of Measure	ADWG aesthetic guideline value	Performance standard (assessment over previous 12 months)	Average for Month	12 month average result	Met performance standard
pН	pH units	6.5-9.2	Average of test results between 6.5 - 9.2 pH units	8.16	7.84	Yes

## **PFOS and PFOA Results for Hunter Water Source Waters**

Analyte	Units of Measure	US EPA Guideline Value	Grahamstown WTP	Dungog WTP	Nelson Bay WTP	Anna Bay WTP	Lemon Tree Passage WTP	Gresford WTP
PFOS	μg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFOA	μg/L	0.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01