

<b>NI WATER: DRINKING WATER QUALITY REPORT 2015</b>	<b>2<sup>nd</sup> August 2016</b>
<b>TO: ENVIRONMENTAL SERVICES COMMITTEE</b>	
<b>FOR INFORMATION</b>	

<b>Linkage to Council Strategy (2015-19)</b>	
<b>Strategic Theme</b>	Resilient, Healthy and Engaged Communities
<b>Outcome</b>	Provision of Safe Drinking Water Supply Compliant with Regulatory Standards
<b>Lead Officer</b>	Bryan Edgar
<b>Cost: (If applicable)</b>	N/A

### **Drinking Water Quality Report**

NI Water have provided a report on the quality of water supplied to premises within the Council area during 2015. The information is provided in accordance with the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 as amended. The report has been provided to members in a pdf format (see appendix IV).

### **Water Supply Zones Wholly or Partially within Council Area**

<b>Zone Code</b>	<b>Zone Name</b>
ZN0101	Ballinrees Coleraine
ZN0202	Altnahinch Bushmills
ZN0204	Rathlin Island
ZN0302	Dungonnell Glarryford
ZN0501	Moyola Magherafelt
ZN0601	Ballinrees Limavady
ZN0603	Carmoney Eglinton
ZN0604	Caugh Hill Dungiven
ZN0607	Corrody Derry

Separation of data within these water supply zones across Council boundaries is not practicable, therefore the information used in calculating the zonal compliance relates to the whole zone and not just that within the Council area. There is a short commentary provided for each zonal area together with exceedances reported and reasons for same together with actions and or resolutions. The report and information show that the drinking water supplied by NI Water complies to a high degree with the regulatory standards.



**Drinking Water Quality Report for  
Northern Ireland  
2015**

**Causeway Coast and Glens Borough Council**

## **Water Quality by Northern Ireland Local Council Area**

This local council report is designed to demonstrate water quality by individual council area based on the % Compliance at Customer Tap (including Supply Points) over the water supply zones associated with that council area, as shown on the enclosed map.

For monitoring purposes NI Water's supply area is divided into water supply zones. These are areas serving not more than 100,000 people, each of which are normally supplied from a single water supply source or combination of sources. There are areas where owing to topography and dispersal of population, it is not practicable to provide a mains water supply. Currently over 99.6% of Northern Ireland's population receive public water supplies.

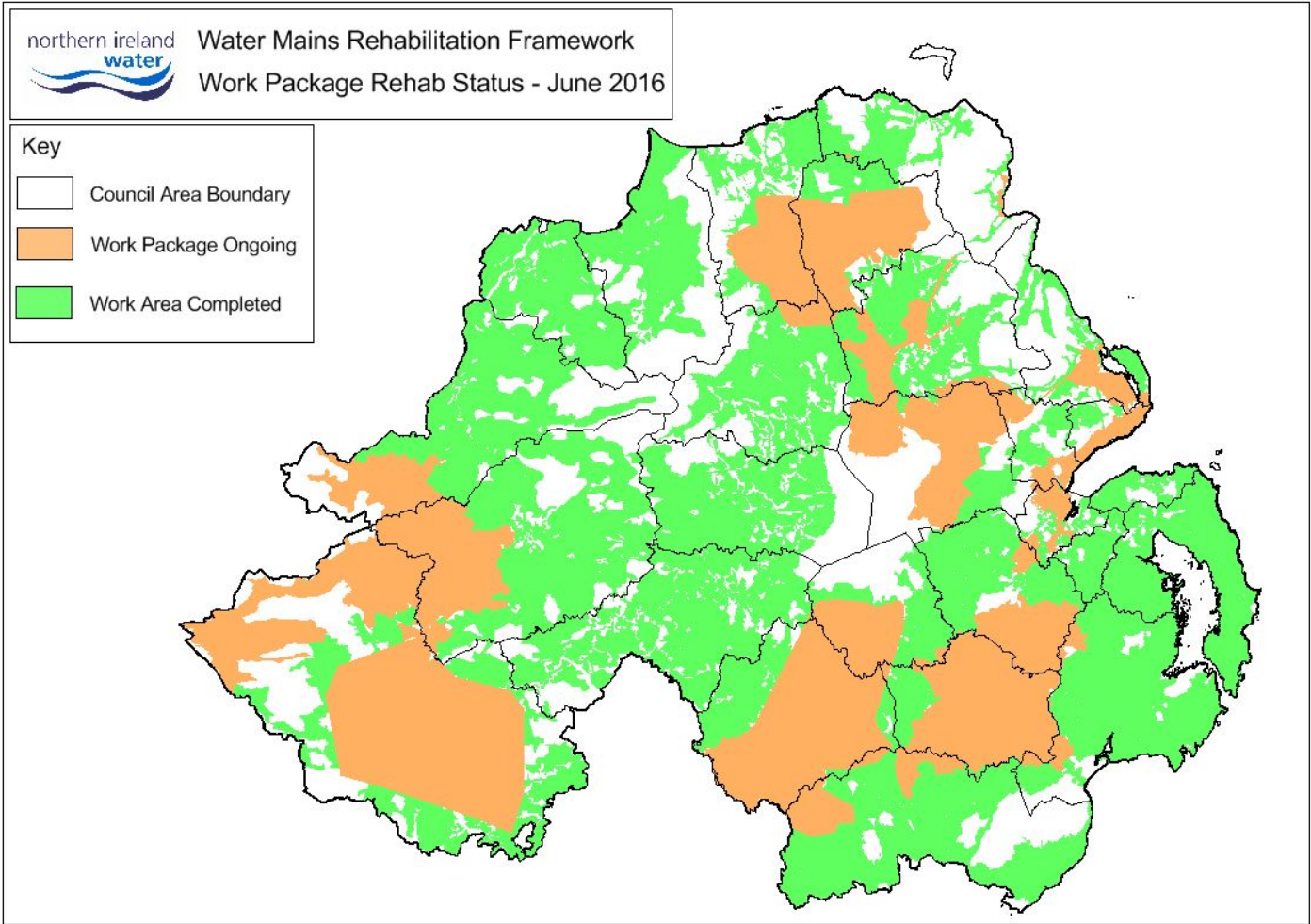
In a number of cases water supply zones overlap council boundaries. The council reports indicate which water supply zones are wholly or partially contained within the council areas, including those zones which may have a relatively small area within the council area. Separation of data within these water supply zones across council boundaries is not practicable, therefore the information used in calculating the zonal compliance relates to the whole zone and not merely the part included within a council boundary. Following discussions with the Drinking Water Inspectorate, water supply zones with fewer than 40 properties within the council area have not been used to calculate the individual council compliance. The information is based on samples taken randomly from customer taps in each water supply zone and from planned samples at authorised supply points. Due to the nature of random sampling, there may be fluctuations in water quality across the water supply zones.

The report also details Capital Work Programmes affecting the council area which directly related to water quality during the reporting period.

Small variations in water quality compliance performance occur across Northern Ireland. This reflects the need to continue to invest in and to maintain water treatment works, and to improve the water mains network.

NI Water has identified the need to deliver a significant volume of watermains rehabilitation and other works across its ageing network. The works are necessary to ensure the efficient and cost effective operation of its water supply system in the immediate future and longer term as well as ensuring adequate levels of water quality and customer supply. To achieve this goal, NI Water has implemented a Watermains Rehabilitation Framework, within which it undertakes work on a Northern Ireland wide basis as identified by the zonal study programme of work.

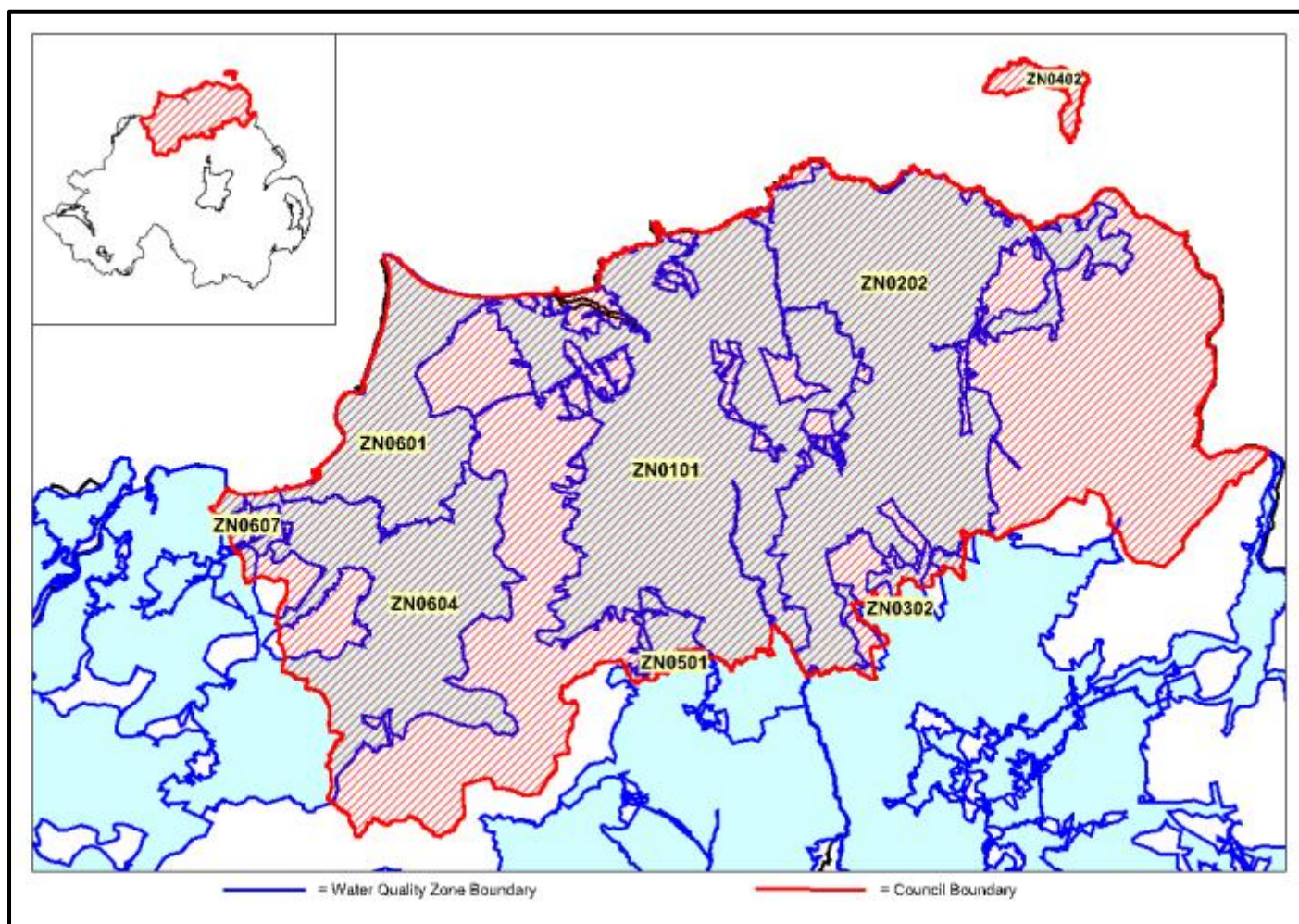
## Watermains Rehabilitation Framework Current Work Package Status



The map above shows the extent of the current Watermains Rehabilitation Framework covering most of Northern Ireland. To assist clarity, whilst the council boundaries are shown, the individual councils are not named. Regions in white on the map are largely watercourses or upland areas which do not receive public water supply.



## Causeway Coast and Glens Borough Council



### % Compliance at Customer Tap (including Supply Points)

	Target	2013	2014	2015
Overall Northern Ireland Compliance	99.7%	99.7%	99.8%	99.7%
Ballymoney Council Compliance	99.7%	99.8%	99.8%	99.7%

### 2015 water supply zones wholly or partially within the council area:

Zone Code	Zone Name	Zone Code	Zone Name
ZN0101	Ballinrees Coleraine	ZN0601	Ballinrees Limavady
ZN0202	Altnahinch Bushmills	ZN0603	Carmony Eglinton
ZN0204	Rathlin Island	ZN0604	Caugh Hill Dungiven
ZN0302	Dungonnell Glarryford	ZN0607	Corrody Derry
ZN0501	Moyola Magherafelt		

### 2015 water quality Capital Works Programmes affecting the council area:

A26 Dualling: Glarryford to A44 (Drones Road) Junction - Watermains replacements  
 Caugh Hill WTW FAS Storage  
 Chatham Road, Armoy, Watermains Replacement.  
 Glenlough Pumping Station & Pumping Main  
 Hydraulic Model Rebuilds and Project Management 2015-2016  
 MIMP North (Major Incident Mitigation Project North Region) Freeze Thaw Improvements  
 Moyola Zone Watermains Improvements  
 Non-Infrastructure Major Works  
 PC15 Abstraction Monitoring

PC15 Lead Communication Pipe Replacement Programme  
PC15 PPRA Review of EP Watermains Rehab Work Packages  
PC15 Watermains Minor Works Framework  
PC15 Watermains Rehabilitation Framework  
Rasharkin Zone Watermains Improvements Phase 2  
Replacement Watermains 2014/15 - Reactive, Bundle 1  
SEMD Surveys PC10 Water  
Service Reservoir Enhancements  
Water Resource and Supply Resilience Plan  
Water Treatment Sites - Water Regulation Compliance & Energy Efficiency Programme  
Watermains Rehabilitation, New and Replacement incl FTS - Professional Services  
WIIM Networks Work Packages Development and Verification  
WP134 High Priority Watermains Ph1  
WTW - Treatability Appraisal Studies  
WTW - Treatability Appraisal Studies  
WTW Effluent Quality  
WTW Resilience Improvement

## **UNDERSTANDING YOUR WATER QUALITY RESULTS**

### **Where the water quality standards come from**

The water we supply for domestic use or food production must comply with the standards in The Water Supply (Water Quality) Regulations (NI) 2007, which incorporate European Union standards and more stringent UK national standards. These Regulations detail the acceptable levels of certain characteristics, elements and substances allowed in drinking water. Usually, this is a maximum level; but, occasionally, a minimum is also set (e.g. pH). This permissible level is known as the Prescribed Concentration or Value (PCV). Some of the regulatory levels are set for aesthetic reasons and not for health (e.g. Colour).

### **Where we sample**

Samples are taken from our service reservoirs, water treatment works, and taps in customers' homes. Every year, our accredited state-of-the-art laboratories carry out over 100,000 sophisticated tests to ensure quality standards are met. The Drinking Water Inspectorate (DWI) within the Northern Ireland Environment Agency (NIEA) also independently audits these tests and issues a report each year on its findings. DWI ensures that NI Water meets more than 50 legal standards for drinking water quality to match water companies across the rest of the UK. The standards are strict and generally include wide safety margins. They cover: bacteria; chemicals, such as nitrates and pesticides; metals, such as lead; and how water looks and tastes.

### **What happens if a test fails?**

If a sample fails a test, this does not necessarily mean the water is unsafe to drink. Sometimes, the water in our mains or pipes and in the neighbouring properties is good, but the failure is caused by the householder's own plumbing system. However, we take all failures of these standards very seriously and these are dealt with by a team of specialists. All failures are recorded, investigated and action is taken to resolve the problem. If the contamination is found to be due to the tap or internal plumbing, NI Water will inform the customer in writing of the reason for the failure so that they can take appropriate action. A copy of the letter is also provided to the Public Health Agency, the local Environmental Health Officer and the DWI.

All PCV failures are also reported externally to the DWI, respective health boards, Environmental Health departments, the Consumer Council for Northern Ireland (CCNI), DRD Water Policy Unit and the Utility Regulator (NAIUR).

### **Units of measurement**

The units of measurement used in this factsheet are as follows:

- 1 milligram per litre (mg/l) is one part per million
- 1 microgram per litre ( $\mu\text{g/l}$ ) is 1 part per billion (or thousand million)
- NTU – Nephelometric turbidity units (for turbidity measurement)
- Pt/Co – Platinum-cobalt units Standard (for colour measurement)
- $\mu\text{S/cm}$  – micro siemens per centimetre (for conductivity measurement)

### **Concentration or value**

Shown in three ways:

- **Min**(imum), the lowest result during the period
- **Mean**, the average of the results
- **Max**(imum), the highest result during the period.
- A '<' symbol means a result was less than the value at which a parameter can be detected.
- A '>' symbol means a result was greater than the range within which a parameter is normally detected.

### **Number of samples**

- Total taken – the number of samples tested for each parameter
- Contravening – shows the number of samples that exceeded the PCV
- % of samples contravening PCV – the number of samples that contravened the PCV compared to the total number of samples taken expressed as a percentage.



## INDIVIDUAL PARAMETERS/SUBSTANCES

### **Hardness**

Total Hardness is normally caused by dissolved calcium and, to a lesser extent, magnesium in rocks through which the water has passed. In Northern Ireland, our water is predominantly soft to moderately soft, or slightly to moderately hard. Hardness means you may have to use more soap when washing as hard water lathers less than soft water. It has not been proven to have adverse effects on health and is safe to drink. There is no standard specified in the current regulations.

Dependent upon the origin and manufacturer of your dishwasher, you may require a specific parameter, such as Clarke degrees (a.k.a. English degrees) or French or German degrees.

GH is general hardness, while KH is Carbonate, or temporary hardness.

Details of the hardness in your area may be found at <http://www.niwater.com/water-quality-results/>

### **pH (listed under 'Hydrogen Ion')**

This is a scientific term used to describe the acidity or alkalinity of a fluid. We need to control the pH of water because:

- if water is too acidic, it may corrode metal pipes in the distribution system
- if water is too alkaline, it may cause deposits to form in the pipes

The standard is to keep water pH levels in the 6.5-9.5 range.

### **Colour**

The colour of drinking water is usually dependent on the presence of naturally-occurring dissolved organic matter. For example, the higher the peat content of a catchment, (e.g. the Mourne Catchment), the higher the level of colour in the raw water. However, colour may also be due to the presence of iron contributed by old cast-iron mains.

- PCV for colour is 20 mg/l Pt/Co.

Sometimes, the water coming out of the tap has a milky or cloudy appearance, which is usually caused by excess air dissolved in the water as micro bubbles. This is not harmful and, if the water is left to stand for a few minutes, it will clear from the bottom upwards (i.e. the bubbles of air rise to the top of the glass and escape).

### **Turbidity**

Turbidity is caused by very fine insoluble materials that may be present in water. Levels are closely monitored during the treatment processes.

- PCV at the customer's tap is 4 NTU

### **Odour and taste**

Customer complaints quite often relate to taste and odour. Quality control tests are carried out to measure the level of taste and odour and are performed by a specialist testing panel.

- PCV for each = Dilution Number >0

### **Conductivity**

Conductivity is proportional to the dissolved solids content of the water and is often used as an indication of the presence of dissolved minerals, such as calcium, magnesium and sodium.

- PCV is 2500  $\mu\text{S}/\text{cm}$  at 20°C

### **Chlorine (Cl - listed under Free-Residual disinfectant)**

Chlorine is added to water to ensure water is free from bacteria. When chlorine is added, not all of it is used up in the process. Some remains as 'free chlorine' to make sure the water remains safe as it passes through the distribution system.

No PCV is prescribed for chlorine in the regulations and these levels are set to ensure that a small concentration remains at the end of the distribution system to maintain customer safety.

### **E. coli and enterococci**

If present, these indicate a possible breach in the integrity of the water supply system. An effective treatment process will kill any organisms present.

PCV standards are:

- 0 /100ml for *E. Coli*
- 0 /100ml for Enterococci

### **Coliforms**

These are naturally present in the environment. Their presence may indicate a possible breach in the integrity of the supply system or contamination from the kitchen sink or taps.

### **Nitrite and nitrate (NO<sub>2</sub> and NO<sub>3</sub>)**

Normally only trace amounts of these compounds are found in water.

- PCV for nitrite = 0.5 mg NO<sub>2</sub>/l
- PCV for nitrate = 50 mg NO<sub>3</sub>/l

### **Chloride (Cl)**

Chloride in water originates from natural sources such as mineral deposits. It can contribute to taste which may be unacceptable to customers if the standard is exceeded.

- PCV = 250 mg Cl/l

### **Fluoride (F)**

NI Water does not add fluoride to any water supply in Northern Ireland. Fluoride can occur naturally in some raw water supplies at low levels.

- PCV = 1.5 mg F/l

### **Sulphate (SO<sub>4</sub>)**

Sulphate occurs naturally in water and originates from mineral deposits. High concentrations may give rise to taste problems and, in the long-term, damage pipe work.

- PCV = 250 mg SO<sub>4</sub>/l

### **Copper (Cu)**

Copper can occur naturally in some water sources and is normally found in low concentrations in drinking water.

- PCV = 2 mg Cu/l

### **Iron (Fe)**

This is one of the most abundant metals found naturally in surface and ground waters. After treatment, it is normally reduced to trace concentrations in drinking water. Increased levels can occur due to the corrosion of old cast-iron water mains. There is no known health risk associated with high iron concentrations, but staining of clothing in washing machines can occur.

- PCV = 200 µg Fe/l

### **Manganese (Mn)**

Manganese occurs naturally in water. High concentrations of manganese in tap water may cause discolouration and possible staining of clothing in washing machines.

- PCV = 50 µg Mn/l

### **Aluminium (Al)**

Aluminium can occur naturally in water within certain catchments. However, aluminium compounds are used in the treatment process to help remove impurities. Any aluminium compounds added during the treatment process are removed before the final treated water leaves the treatment works.

- PCV = 200 µg Al/l

### **Sodium (Na)**

Sodium occurs naturally in trace amounts in water. High concentrations may impart a level of taste that is unacceptable to customers.

- PCV = 200 mg Na/l

### **Lead (Pb)**

Lead is not normally present in water sources, but significant concentrations may be present at customers' taps if lead or copper pipes with lead joints have been used in the plumbing system. More information is available [here](#).

- PCV = 10 µg Pb/l

### **Trihalomethanes (THMs)**

THMs occur in drinking water as by-products of the reaction of chlorine with naturally-occurring dissolved organic materials. In drinking water, only four compounds out of the group of THMs have health significance, the most common of which is chloroform. The PCV is based on the sum of the concentrations of all four constituents.

- PCV = 100 µg/l

### **Other substances**

In addition to those listed and explained above, we also test for substances such as hydrocarbons, pesticides and herbicides, phenols and organic carbon. We also carry out extensive monitoring of our supplies for cryptosporidium through sampling of raw and final treated water.

Home-brewers may be interested in the Calcium, Magnesium, Carbonate, Sodium, Sulphate, Chloride and pH levels of their water supply. If you cannot locate the information you require at <http://www.niwater.com/water-quality-results> please contact us at [waterline@niwater.com](mailto:waterline@niwater.com)

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0101 - Ballinrees Coleraine**

The water supplied in this zone within the Causeway Coast and Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Iron – single exceedance**

Investigations found that this exceedance was most likely caused by a disturbance of mains deposits from older iron mains, with resamples being satisfactory after flushing if required. NI Water has in place an extensive Mains Rehabilitation Programme, which favours mains replacement and zones are prioritised according to need. This programme will continue to maintain and improve the quality of water in your council area over the next few years.

#### **Total coliforms – two exceedances**

Total coliforms are an indication of microbiological contamination. Exceedances can occur when there are problems with disinfection of the water supply or where the sample tap is contaminated. Most total coliform / E Coli exceedances are as a result of contamination of the customer tap. Investigation of these exceedances found that the water supply was satisfactory and that the contamination was most likely related to the customer tap on all occasions.

#### **Pesticides – Monitored at Authorised Supply point**

NI Water analyses for 30 individual pesticides, herbicides and algaecides, with an exceedance of the individual standard detected for MCPA. The exceedance was most likely caused by high rainfall events, which could have caused increased herbicide wash off from the catchment area into the supply for Ballinrees WTW.



WATER SUPPLY ZONE - ZN0101 - Ballinrees Coleraine  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven ing PCV	% of samples contraven ing PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
1,2 Dichloroethane	S	8	8		0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	AS	8	8		0	0.000	< 0.004	< 0.011	0.015
2,4-DB	AS	8	8		0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	S	76	76		0	0.000	7.822	33.938	184.600
Ammonium	S	76	76		0	0.000	< 0.010	< 0.012	0.022
Antimony	S	8	8		0	0.000	< 0.010	< 0.072	0.136
Arsenic	S	8	8		0	0.000	0.291	0.325	0.434
Bentazone	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Benzene	S	8	8		0	0.000	0.016	0.021	0.025
Benzo(a)pyrene	S	8	8		0	0.000	< 0.001	< 0.001	< 0.001
Boron	S	8	8		0	0.000	< 0.001	< 0.008	0.011
Bromate	S	8	8		0	0.000	< 0.300	< 0.300	< 0.300
Bromoxnyl	AS	8	8		0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	S	8	8		0	0.000	0.005	0.011	0.017
Chloride	S	8	8		0	0.000	20.695	24.534	28.140
Chlorotoluron	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Chromium	S	8	8		0	0.000	0.234	0.390	0.552
Clopyralid	AS	8	8		0	0.000	< 0.006	< 0.010	0.020
Clostridium perfringens (sulph red)	AS	104	105		0	0.000	0.000	0.000	0.000
Colony Counts 22	S	76	76		0	0.000	0.000	2.250	94.000
Colony Counts 37 (48hrs)	S	76	76		0	0.000	0.000	0.000	0.000
Colour	S	76	76		0	0.000	0.700	1.531	2.760
Copper	S	8	8		0	0.000	< 0.001	< 0.002	0.004
Cyanide	AS	8	8		0	0.000	< 0.500	< 0.763	< 1.000
Dicamba	AS	8	8		0	0.000	< 0.001	< 0.011	< 0.012
Dichlorprop	AS	8	8		0	0.000	< 0.003	< 0.003	< 0.003
Diuron	AS	8	8		0	0.000	< 0.003	< 0.004	0.007
E. coli	S	228	229		0	0.000	0.000	0.000	0.000
Enterococci	S	8	8		0	0.000	0.000	0.000	0.000
Epoxiconazole	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	S	8	8		0	0.000	0.018	0.026	0.049
Fluroxypyr	AS	8	8		0	0.000	< 0.005	< 0.010	0.014
Free - Residual disinfectant	S	228	229		0	0.000	< 0.050	< 0.239	0.960
Glyphosate	AS	8	8		0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	S	76	76		0	0.000	7.220	7.674	8.000
Iron	S	76	76		1	1.316	1.580	28.790	250.400
Isoproturon	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Lead	S	8	8		0	0.000	0.060	0.158	0.506
Linuron	AS	8	8		0	0.000	< 0.006	< 0.006	< 0.006
MCPA	AS	8	8		1	12.500	0.014	0.053	0.170
Manganese	S	76	76		0	0.000	< 0.100	< 2.289	13.390
Mecoprop	AS	8	8		0	0.000	0.011	0.015	0.021
Mercury	S	8	8		0	0.000	0.007	0.026	0.102
Metalaxyl	AS	8	8		0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Nickel	S	8	8		0	0.000	1.078	1.791	3.971
Nitrate	S	8	8		0	0.000	< 0.400	< 0.774	1.938
Nitrite	S	8	8		0	0.000	< 0.010	< 0.010	< 0.010
Odour	S	76	77		0	0.000	0.000	0.000	0.000
PAH - Sum of four substances	S	8	8		0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	AS	8	8		0	0.000	< 0.050	< 0.109	0.260
Phorate	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	AS	8	8		0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	AS	8	8		0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	AS	8	8		0	0.000	< 0.006	< 0.006	< 0.006
Selenium	S	8	8		0	0.000	< 0.200	< 0.393	0.543
Sodium	S	8	8		0	0.000	12.707	14.849	16.195

WATER SUPPLY ZONE - ZN0101 - Ballinrees Coleraine  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
Sulphate	mg SO4/l	S	8	8	0	0.000	49.986	59.720	77.043
Taste	Diln No	S	76	76	0	0.000	0.000	0.000	0.000
Tebuconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	ug/l	S	8	8	0	0.000	< 0.200	< 0.235	< 0.418
Tetrachloromethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	228	229	0	0.000	0.060	0.350	1.060
Total Indicative Dose	mSv/year	AS	1	1	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	S	8	8	0	0.000	1.750	2.600	3.430
Total Trihalomethanes	ug/l	S	8	8	0	0.000	41.300	59.188	71.400
Total coliforms	No./100 ml	S	228	229	2	0.873	0.000	0.096	15.000
Triclopyr	ug/l	AS	8	8	0	0.000	0.009	0.014	0.020
Tritium	Bq/l	AS	1	1	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	76	76	0	0.000	0.090	0.261	0.700

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 91637

This zone has a surface water source :R1701

PCV Exceedances:

Sample failed 13-OCT-2015 (ZN0101AE) Iron = 250 ug Fe/.  
 Sample failed 17-AUG-2015 (W1701POUT) MCPA = 0.1700 ug/.  
 Sample failed 10-MAR-2015 (ZN0101AE) Total coliforms = 7 No./100.  
 Sample failed 13-OCT-2015 (ZN0101AE) Total coliforms = 15 No./100.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0202 - Altnahinch Bushmills**

The water supplied in this zone within the Causeway Coast and Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Aluminium – single exceedance**

A single sample failed for aluminium. Investigations found that this exceedance was most likely caused by a disturbance of mains deposits. Resamples were clear after flushing. NI Water has in place an extensive Mains Rehabilitation Programme, which favours mains replacement and zones are prioritised according to need.

#### **Iron – three exceedances**

Investigations found that these exceedances were most likely caused by a disturbance of mains deposits from older iron mains, with resamples being satisfactory after flushing if required. NI Water has in place an extensive Mains Rehabilitation Programme, which favours mains replacement and zones are prioritised according to need. This programme will continue to maintain and improve the quality of water in your council area over the next few years.

WATER SUPPLY ZONE - ZN0202 - Altnahinch Bushmills  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	ug/l	AS	8	8	0	0.000	< 0.004	< 0.006	0.011
2,4-DB	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	36	36	1	2.778	5.900	36.276	376.800
Ammonium	mg NH4/l	S	36	36	0	0.000	0.007	0.012	0.022
Antimony	ug/l Sb	S	8	8	0	0.000	0.005	0.036	0.069
Arsenic	ug/l As	S	8	8	0	0.000	< 0.300	< 0.313	0.401
Bentazone	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Benzene	ug/l	S	8	8	0	0.000	0.015	< 0.019	< 0.020
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	0.001	0.008	0.022
Bromate	ug/l	S	8	8	0	0.000	< 0.300	< 1.675	3.300
Bromoxynil	ug/l	AS	8	8	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.005	0.012	0.021
Chloride	mg Cl/l	S	8	8	0	0.000	11.730	18.732	24.345
Chlorotoluron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.087	0.213	0.549
Clopyralid	ug/l	AS	8	8	0	0.000	< 0.006	< 0.018	0.030
Clostridium perfringens (sulph red)	No./100 ml	AS	36	37	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	36	36	0	0.000	0.000	0.000	0.000
Colony Counts 37 (48hrs)	No./1 ml	S	36	36	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	36	36	0	0.000	0.620	1.532	3.670
Conductivity	uS/cm 20 C	AS	36	50	0	0.000	160.000	190.260	231.000
Copper	mg Cu/l	S	8	8	0	0.000	0.001	0.021	0.125
Cyanide	ug/l	AS	8	8	0	0.000	0.330	2.941	4.400
Dicamba	ug/l	AS	8	8	0	0.000	< 0.012	< 0.012	< 0.012
Dichlorprop	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Diuron	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
E. coli	No./100 ml	S	84	84	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	8	0	0.000	0.015	0.025	0.059
Fluroxypyr	ug/l	AS	8	8	0	0.000	< 0.005	< 0.006	0.009
Free - Residual disinfectant	mg Cl/l	S	84	84	0	0.000	0.050	0.365	1.270
Glyphosate	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	36	36	0	0.000	6.820	7.278	7.900
Iron	ug Fe/l	S	36	36	3	8.333	< 2.000	< 69.760	387.100
Isoproturon	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	8	8	0	0.000	0.076	0.302	1.082
Linuron	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	8	8	0	0.000	< 0.004	< 0.005	0.011
Manganese	ug Mn/l	S	36	36	0	0.000	0.252	3.353	19.000
Mecoprop	ug/l	AS	8	8	0	0.000	< 0.003	< 0.004	0.007
Mercury	ug/l Hg	S	8	8	0	0.000	0.006	0.027	0.086
Metalaxyl	ug/l	AS	8	8	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	0.702	1.888	3.353
Nitrate	mg NO3/l	S	8	8	0	0.000	< 0.400	< 0.537	0.769
Nitrite	mg NO2/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Odour	Diln No	S	36	36	0	0.000	0.000	0.000	0.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	8	8	0	0.000	< 0.050	< 0.051	0.059
Phorate	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	8	8	0	0.000	0.165	0.322	0.594

WATER SUPPLY ZONE - ZN0202 - Altnahinch Bushmills  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven ing PCV	% of samples contraven ing PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
Sodium	S	8	8		0	0.000	9.974	11.641	13.941
Sulphate	S	8	8		0	0.000	37.192	51.759	69.413
Taste	S	36	36		0	0.000	0.000	0.000	0.000
Tebuconazole	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	S	8	8		0	0.000	< 0.200	< 0.306	0.620
Tetrachloromethane	S	8	8		0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	S	84	84		0	0.000	0.080	0.482	1.360
Total Indicative Dose	AS	1	1		0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	AS	8	8		0	0.000	1.230	2.048	2.670
Total Trihalomethanes	S	8	8		0	0.000	33.600	56.471	94.400
Total coliforms	S	84	84		0	0.000	0.000	0.000	0.000
Triclopyr	AS	8	8		0	0.000	< 0.004	< 0.005	0.010
Tritium	AS	1	1		0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	S	36	36		0	0.000	0.080	0.300	1.070

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 31496

This zone has a surface water source :R1702

PCV Exceedances:

Sample failed 12-AUG-2015 (ZN0202AE) Aluminium = 377 ug Al/.  
 Sample failed 23-JUL-2015 (ZN0202AE) Iron = 204 ug Fe/.  
 Sample failed 03-DEC-2015 (ZN0202AE) Iron = 271 ug Fe/.  
 Sample failed 16-DEC-2015 (ZN0202AE) Iron = 387 ug Fe/.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0204 - Rathlin Island**

The water supplied in this zone within your council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007.



WATER SUPPLY ZONE - ZN0204 - Rathlin Island  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contravening PCV	% of samples contravening PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
1,2 Dichloroethane	ug/l	S	4	4	0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
2,4-DB	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	4	4	0	0.000	3.212	6.099	9.637
Ammonium	mg NH4/l	S	4	4	0	0.000	< 0.012	< 0.012	< 0.012
Antimony	ug/l Sb	S	4	4	0	0.000	0.007	0.048	0.168
Arsenic	ug/l As	S	4	4	0	0.000	0.289	0.413	0.638
Bentazone	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Benzene	ug/l	S	4	4	0	0.000	< 0.020	< 0.020	< 0.020
Benzo(a)pyrene	ug/l	S	4	4	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	4	4	0	0.000	0.027	0.036	0.046
Bromate	ug/l	S	4	4	0	0.000	< 0.300	< 0.300	< 0.300
Bromoxynil	ug/l	AS	4	4	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	4	4	0	0.000	< 0.010	< 0.010	< 0.010
Chloride	mg Cl/l	S	4	4	0	0.000	67.230	67.946	68.467
Chlorotoluron	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	4	4	0	0.000	0.102	0.264	0.429
Clopyralid	ug/l	AS	4	4	0	0.000	< 0.006	< 0.007	0.011
Clostridium perfringens (sulph red)	No./100 ml	AS	4	4	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	4	4	0	0.000	0.000	0.000	0.000
Colony Counts 37 (48hrs)	No./1 ml	S	4	4	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	4	4	0	0.000	0.950	1.273	1.650
Conductivity	uS/cm 20 C	AS	4	30	0	0.000	435.000	471.400	482.000
Copper	mg Cu/l	S	4	4	0	0.000	0.001	0.001	0.002
Cyanide	ug/l	AS	4	4	0	0.000	< 0.300	< 1.728	5.200
Dicamba	ug/l	AS	4	4	0	0.000	< 0.012	< 0.012	< 0.012
Dichlorprop	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
Diuron	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
E. coli	No./100 ml	S	12	12	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	4	4	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	4	4	0	0.000	0.024	0.032	0.039
Fluroxypyr	ug/l	AS	4	4	0	0.000	< 0.005	< 0.005	< 0.005
Free - Residual disinfectant	mg Cl/l	S	12	12	0	0.000	0.080	0.286	0.520
Glyphosate	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	4	13	0	0.000	8.700	8.788	8.860
Iron	ug Fe/l	S	4	4	0	0.000	< 2.000	< 2.000	< 2.000
Isoproturon	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	4	4	0	0.000	0.064	0.134	0.298
Linuron	ug/l	AS	4	4	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Manganese	ug Mn/l	S	4	4	0	0.000	0.207	0.479	0.647
Mecoprop	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
Mercury	ug/l Hg	S	4	4	0	0.000	0.007	0.029	0.071
Metalaxyl	ug/l	AS	4	4	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	4	4	0	0.000	0.149	0.605	1.807
Nitrate	mg NO3/l	S	4	4	0	0.000	< 0.400	< 0.740	1.760
Nitrite	mg NO2/l	S	4	4	0	0.000	0.005	< 0.009	< 0.010
Odour	Diln No	S	4	4	0	0.000	0.000	0.000	0.000
PAH - Sum of four substances	ug/l	S	4	4	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	4	4	0	0.000	< 0.050	< 0.050	< 0.050
Phorate	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	4	4	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	4	4	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	4	4	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	4	4	0	0.000	0.763	1.221	1.773

WATER SUPPLY ZONE - ZN0204 - Rathlin Island

Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
Sodium	mg Na/l	S	4	4	0	0.000	98.777	101.223	104.320
Sulphate	mg SO4/l	S	4	4	0	0.000	12.411	13.103	13.764
Taste	Diln No	S	4	4	0	0.000	0.000	0.000	0.000
Tebuconazole	ug/l	AS	4	4	0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	ug/l	S	4	4	0	0.000	< 0.200	< 0.200	< 0.200
Tetrachloromethane	ug/l	S	4	4	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	12	12	0	0.000	0.150	0.389	0.670
Total Indicative Dose	mSv/year	AS	1	1	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	AS	4	4	0	0.000	1.150	1.610	2.160
Total Trihalomethanes	ug/l	S	4	4	0	0.000	53.630	67.933	88.000
Total coliforms	No./100 ml	S	12	12	0	0.000	0.000	0.000	0.000
Triclopyr	ug/l	AS	4	4	0	0.000	< 0.004	< 0.004	< 0.004
Tritium	Bq/l	AS	1	1	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	4	4	0	0.000	0.060	0.120	0.240

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 283

This zone has a surface water source :R1706

PCV Exceedances:

Water Quality was satisfactory

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0302 - Dungonnell Glarryford**

The water supplied in this zone within the Causeway Coast and Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Iron – single exceedance**

Investigations found that this exceedance was most likely caused by a disturbance of mains deposits from older iron mains, with resamples being satisfactory after flushing if required. NI Water has in place an extensive Mains Rehabilitation Programme, which favours mains replacement and zones are prioritised according to need. This programme will continue to maintain and improve the quality of water in your council area over the next few years.

#### **Odour – single exceedance and Taste – single exceedance**

The DWI directed change in the analysis of taste and odour for 2010 onwards has resulted in a number of exceedances that may not previously have failed. This is not normally due to a change in the quality of water supplied, but rather to the change in the method of measurement. The cause of the exceedance was undetermined and all resamples were satisfactory.

WATER SUPPLY ZONE - ZN0302 - Dungonnell Glarryford  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	ug/l	AS	32	32	0	0.000	< 0.004	< 0.008	0.012
2,4-DB	ug/l	AS	32	32	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	24	24	0	0.000	6.098	25.519	60.700
Ammonium	mg NH4/l	S	24	25	0	0.000	0.007	< 0.012	< 0.012
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.010	< 0.047	0.130
Arsenic	ug/l As	S	8	8	0	0.000	0.256	< 0.295	< 0.300
Bentazone	ug/l	AS	32	32	0	0.000	< 0.002	< 0.003	0.008
Benzene	ug/l	S	8	8	0	0.000	0.017	0.020	0.022
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	< 0.001	< 0.005	0.017
Bromate	ug/l	S	8	8	0	0.000	0.600	1.531	2.300
Bromoxynil	ug/l	AS	32	32	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.006	0.010	0.014
Chloride	mg Cl/l	S	8	8	0	0.000	7.336	14.503	18.329
Chlorotoluron	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.019
Chlorpyrifos	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.100	0.148	0.198
Clopyralid	ug/l	AS	32	32	0	0.000	< 0.006	< 0.011	0.034
Clostridium perfringens (sulph red)	No./100 ml	AS	348	354	1	0.282	0.000	0.003	1.000
Colony Counts 22	No./1 ml	S	24	24	0	0.000	0.000	0.042	1.000
Colony Counts 37 (48hrs)	No./1 ml	S	24	24	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	24	24	0	0.000	0.670	1.134	1.710
Conductivity	uS/cm 20 C	AS	36	46	0	0.000	114.000	141.043	179.000
Copper	mg Cu/l	S	8	8	0	0.000	0.001	0.010	0.040
Cyanide	ug/l	AS	32	32	0	0.000	< 0.500	< 1.034	3.100
Dicamba	ug/l	AS	32	32	0	0.000	< 0.001	< 0.011	< 0.012
Dichlorprop	ug/l	AS	32	32	0	0.000	< 0.003	< 0.004	0.011
Diuron	ug/l	AS	32	32	0	0.000	< 0.002	< 0.003	< 0.003
E. coli	No./100 ml	S	72	72	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	8	0	0.000	< 0.020	< 0.034	0.126
Fluroxypyr	ug/l	AS	32	32	0	0.000	< 0.005	< 0.009	0.016
Free - Residual disinfectant	mg Cl/l	S	72	72	0	0.000	< 0.050	< 0.524	1.320
Glyphosate	ug/l	AS	32	32	0	0.000	< 0.002	< 0.004	0.021
Hydrogen Ion	pH value	S	24	24	2	8.333	7.060	7.665	10.300
Iron	ug Fe/l	S	24	24	2	8.333	4.213	63.101	394.000
Isoproturon	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	8	8	0	0.000	0.070	0.099	0.118
Linuron	ug/l	AS	32	32	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	32	32	0	0.000	< 0.004	< 0.023	0.037
Manganese	ug Mn/l	S	24	24	0	0.000	< 0.100	< 1.218	3.500
Mecoprop	ug/l	AS	32	32	0	0.000	< 0.003	< 0.010	0.018
Mercury	ug/l Hg	S	8	8	0	0.000	0.009	0.025	0.092
Metalaxyl	ug/l	AS	32	32	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	< 0.100	< 1.055	2.770
Nitrate	mg NO3/l	S	8	9	0	0.000	< 0.400	< 0.400	< 0.400
Nitrite	mg NO2/l	S	8	9	0	0.000	< 0.010	< 0.010	< 0.010
Odour	Diln No	S	24	24	2	8.333	0.000	0.208	3.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	32	32	0	0.000	< 0.050	< 0.074	0.114
Phorate	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	32	32	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	32	32	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	32	32	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	32	32	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	8	8	0	0.000	0.156	0.275	0.507

WATER SUPPLY ZONE - ZN0302 - Dungonnell Garryford  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples constraven	% of samples constraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
Sodium	mg Na/l	S	8	8	0	0.000	5.588	9.186	11.008
Sulphate	mg SO4/l	S	8	8	0	0.000	22.397	33.732	48.925
Taste	Diln No	S	24	24	1	4.167	0.000	0.167	4.000
Tebuconazole	ug/l	AS	32	32	0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	ug/l	S	8	8	0	0.000	< 0.200	< 0.260	< 0.448
Tetrachloromethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	72	72	0	0.000	0.060	0.591	1.400
Total Indicative Dose	mSv/year	AS	2	2	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	AS	8	8	0	0.000	0.809	1.677	2.620
Total Trihalomethanes	ug/l	S	8	8	0	0.000	30.000	57.915	99.700
Total coliforms	No./100 ml	S	72	72	0	0.000	0.000	0.000	0.000
Triclopyr	ug/l	AS	32	32	0	0.000	< 0.004	< 0.011	0.017
Tritium	Bq/l	AS	2	2	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	24	24	0	0.000	0.060	0.197	0.960

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 26301

This zone has a surface water source :R1303

PCV Exceedances:

Sample failed 16-APR-2015 (W3301POUT) Clostridium perfringens (sulph red) = 1 No./100.  
 Sample failed 02-FEB-2015 (ZN0302AE) Hydrogen Ion = 9.85 pH va.  
 Sample failed 02-DEC-2015 (ZN0302AE) Hydrogen Ion = 10.30 pH v.  
 Sample failed 02-FEB-2015 (ZN0302AE) Iron = 394 ug Fe/.  
 Sample failed 16-FEB-2015 (ZN0302AE) Iron = 279 ug Fe/.  
 Sample failed 05-OCT-2015 (ZN0302AE) Odour = 3 Diln No.  
 Sample failed 16-DEC-2015 (ZN0302AE) Odour = 2 Diln No.  
 Sample failed 05-OCT-2015 (ZN0302AE) Taste = 4 Diln No.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0501 - Moyola Magherafelt**

The water supplied in this zone within your council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007.



WATER SUPPLY ZONE - ZN0501 - Moyola Magherafelt  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	ug/l	AS	16	16	0	0.000	< 0.004	< 0.010	0.018
2,4-DB	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	36	36	0	0.000	18.190	31.123	64.160
Ammonium	mg NH4/l	S	36	36	0	0.000	0.005	0.012	0.014
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.010	< 0.118	0.227
Arsenic	ug/l As	S	8	8	0	0.000	0.272	0.369	0.469
Bentazone	ug/l	AS	16	16	0	0.000	< 0.002	< 0.003	0.006
Benzene	ug/l	S	8	8	0	0.000	0.016	0.020	0.023
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	0.001	0.011	0.017
Bromate	ug/l	S	8	8	0	0.000	< 0.300	< 0.300	< 0.300
Bromoxynil	ug/l	AS	16	16	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.006	0.011	0.018
Chloride	mg Cl/l	S	8	9	0	0.000	22.751	23.799	24.588
Chlorotoluron	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.202	0.393	0.627
Clopyralid	ug/l	AS	16	16	0	0.000	< 0.006	< 0.011	0.025
Clostridium perfringens (sulph red)	No./100 ml	AS	104	104	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	36	36	0	0.000	0.000	1.583	22.000
Colony Counts 37 (48hrs)	No./1 ml	S	36	36	0	0.000	0.000	0.250	4.000
Colour	mg/l Pt/Co	S	36	36	0	0.000	0.860	1.882	3.000
Conductivity	uS/cm 20 C	AS	52	53	0	0.000	117.000	134.132	143.000
Copper	mg Cu/l	S	8	8	0	0.000	0.002	0.018	0.088
Cyanide	ug/l	AS	16	16	0	0.000	< 0.500	< 1.475	2.900
Dicamba	ug/l	AS	16	16	0	0.000	< 0.001	< 0.011	< 0.012
Dichlorprop	ug/l	AS	16	16	0	0.000	< 0.003	< 0.004	0.011
Diuron	ug/l	AS	16	16	0	0.000	< 0.003	< 0.004	0.007
E. coli	No./100 ml	S	108	108	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	9	0	0.000	0.017	0.028	0.035
Fluroxypyr	ug/l	AS	16	16	0	0.000	< 0.005	< 0.009	0.020
Free - Residual disinfectant	mg Cl/l	S	108	108	0	0.000	0.050	0.436	0.910
Glyphosate	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	36	36	0	0.000	7.620	7.850	8.040
Iron	ug Fe/l	S	36	36	0	0.000	< 2.000	< 15.788	73.770
Isoproturon	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	0.002
Lead	ug Pb/l	S	8	8	0	0.000	< 0.100	< 0.101	0.110
Linuron	ug/l	AS	16	16	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	16	16	0	0.000	< 0.004	< 0.031	0.089
Manganese	ug Mn/l	S	36	36	0	0.000	< 0.100	< 1.558	18.020
Mecoprop	ug/l	AS	16	16	0	0.000	< 0.003	< 0.011	0.032
Mercury	ug/l Hg	S	8	8	0	0.000	< 0.010	< 0.012	0.021
Metalaxyl	ug/l	AS	16	16	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	1.107	1.799	3.726
Nitrate	mg NO3/l	S	8	9	0	0.000	< 0.400	< 1.476	3.900
Nitrite	mg NO2/l	S	8	9	0	0.000	< 0.010	< 0.010	< 0.010
Odour	Diln No	S	36	36	0	0.000	0.000	0.000	0.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	16	16	0	0.000	< 0.050	< 0.087	0.204
Phorate	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	0.002
Propyzamide	ug/l	AS	16	16	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	16	16	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	8	8	0	0.000	0.161	0.400	0.604

WATER SUPPLY ZONE - ZN0501 - Moyola Magherafelt  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
Sodium	mg Na/l	S	8	8	0	0.000	14.772	15.804	16.761
Sulphate	mg SO4/l	S	8	9	0	0.000	56.148	67.060	73.403
Taste	Diln No	S	36	36	0	0.000	0.000	0.000	0.000
Tebuconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	0.003
Tetrachloroethene/Trichloroethene - S	ug/l	S	8	8	0	0.000	< 0.200	< 0.246	< 0.418
Tetrachloromethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	108	108	0	0.000	0.160	0.548	1.080
Total Indicative Dose	mSv/year	AS	2	2	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	AS	8	9	0	0.000	0.804	1.827	3.400
Total Trihalomethanes	ug/l	S	8	8	0	0.000	47.200	61.150	84.000
Total coliforms	No./100 ml	S	108	108	0	0.000	0.000	0.000	0.000
Triclopyr	ug/l	AS	16	16	0	0.000	< 0.004	< 0.013	0.029
Tritium	Bq/l	AS	2	2	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	36	36	0	0.000	0.070	0.200	0.740

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 42232

This zone has a surface water source :R1301

PCV Exceedances:

Water Quality was satisfactory

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0601 - Ballinrees Limavady**

The water supplied in this zone within the Causeway Coast and Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Iron, Manganese and Turbidity – single sample exceedance**

A single sample failed for iron, manganese and turbidity. Investigations found that these exceedances were most likely caused by a disturbance of mains deposits caused by a burst watermain. All resamples were satisfactory.

#### **Pesticides – Monitored at Authorised Supply point**

NI Water analyses for 30 individual pesticides, herbicides and algaecides, with an exceedance of the individual standard detected for MCPA. The exceedance was most likely caused by high rainfall events, which could have caused increased herbicide wash off from the catchment area into the supply for Ballinrees WTW.

#### **Odour – two exceedances and Taste – single exceedance**

The DWI directed change in the analysis of taste and odour for 2010 onwards has resulted in a number of exceedances that may not previously have failed. This is not normally due to a change in the quality of water supplied, but rather to the change in the method of measurement. The cause of one exceedance was likely due to treatment issues at Ballinrees WTW, however the cause of the other was undetermined and all resamples were satisfactory.

WATER SUPPLY ZONE - ZN0601 - Ballinrees Limavady  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
2,4-D	ug/l	AS	8	8	0	0.000	< 0.004	< 0.011	0.015
2,4-DB	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	24	24	0	0.000	5.730	30.281	144.000
Ammonium	mg NH4/l	S	24	25	0	0.000	0.005	0.018	0.123
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.010	< 0.043	0.090
Arsenic	ug/l As	S	8	8	0	0.000	0.274	0.310	0.348
Bentazone	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Benzene	ug/l	S	8	8	0	0.000	0.016	< 0.020	< 0.020
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	< 0.001	< 0.005	0.017
Bromate	ug/l	S	8	8	0	0.000	< 0.300	< 1.984	5.400
Bromoxynil	ug/l	AS	8	8	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.006	< 0.008	< 0.010
Chloride	mg Cl/l	S	8	8	0	0.000	21.000	24.310	30.138
Chlorotoluron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.119	0.242	0.383
Clopyralid	ug/l	AS	8	8	0	0.000	< 0.006	< 0.010	0.020
Clostridium perfringens (sulph red)	No./100 ml	AS	104	105	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	24	24	0	0.000	0.000	0.250	6.000
Colony Counts 37 (48hrs)	No./1 ml	S	24	24	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	24	24	0	0.000	0.780	1.445	2.750
Copper	mg Cu/l	S	8	8	0	0.000	0.001	0.004	0.020
Cyanide	ug/l	AS	8	8	0	0.000	< 0.500	< 0.763	< 1.000
Dicamba	ug/l	AS	8	8	0	0.000	< 0.001	< 0.011	< 0.012
Dichlorprop	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Diuron	ug/l	AS	8	8	0	0.000	< 0.003	< 0.004	0.007
E. coli	No./100 ml	S	48	48	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	8	0	0.000	0.018	< 0.032	< 0.100
Fluroxypyr	ug/l	AS	8	8	0	0.000	< 0.005	< 0.010	0.014
Free - Residual disinfectant	mg Cl/l	S	48	48	0	0.000	0.150	0.400	0.820
Glyphosate	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	24	27	0	0.000	7.300	7.960	8.750
Iron	ug Fe/l	S	24	24	1	4.167	< 2.000	< 51.757	940.000
Isoproturon	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	8	8	0	0.000	0.050	0.107	0.294
Linuron	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	8	8	1	12.500	0.014	0.053	0.170
Manganese	ug Mn/l	S	24	24	1	4.167	< 0.100	< 9.644	180.000
Mecoprop	ug/l	AS	8	8	0	0.000	0.011	0.015	0.021
Mercury	ug/l Hg	S	8	8	0	0.000	0.008	0.013	0.021
Metalaxyl	ug/l	AS	8	8	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	0.495	2.205	7.845
Nitrate	mg NO3/l	S	8	8	0	0.000	0.386	1.450	4.730
Nitrite	mg NO2/l	S	8	8	0	0.000	< 0.010	< 0.010	0.013
Odour	Diln No	S	24	25	2	8.000	0.000	0.240	4.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	8	8	0	0.000	< 0.050	< 0.109	0.260
Phorate	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	8	8	0	0.000	< 0.200	< 0.408	0.804
Sodium	mg Na/l	S	8	8	0	0.000	10.914	14.048	17.089

WATER SUPPLY ZONE - ZN0601 - Ballinrees Limavady  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven ing PCV	% of samples contraven ing PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
Sulphate	mg SO4/l	S	8	8	0	0.000	6.469	47.890	76.278
Taste	Diln No	S	24	24	1	4.167	0.000	0.167	4.000
Tebuconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	ug/l	S	8	8	0	0.000	< 0.200	< 0.261	0.360
Tetrachloromethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	48	48	0	0.000	0.210	0.484	0.980
Total Indicative Dose	mSv/year	AS	1	1	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	S	8	8	0	0.000	0.802	2.110	3.680
Total Trihalomethanes	ug/l	S	8	8	0	0.000	35.400	59.425	91.200
Total coliforms	No./100 ml	S	48	48	0	0.000	0.000	0.000	0.000
Triclopyr	ug/l	AS	8	8	0	0.000	0.009	0.014	0.020
Tritium	Bq/l	AS	1	1	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	24	24	1	4.167	0.060	0.387	5.000

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 20064

This zone has a surface water source :R1701

PCV Exceedances:

Sample failed 21-JAN-2015 (ZN0601AE) Iron = 940 ug Fe/.  
 Sample failed 17-AUG-2015 (W1701POUT) MCPA = 0.1700 ug/.  
 Sample failed 21-JAN-2015 (ZN0601AE) Manganese = 180.0 ug M.  
 Sample failed 18-MAY-2015 (ZN0601AE) Odour = 4 Diln No.  
 Sample failed 17-AUG-2015 (ZN0601AE) Odour = 2 Diln No.  
 Sample failed 18-MAY-2015 (ZN0601AE) Taste = 4 Diln No.  
 Sample failed 21-JAN-2015 (ZN0601AE) Turbidity = 5.0 NTU.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

## **2015 WATER SUPPLY COMMENTARY**

### **ZN0604 - Caugh Hill Dungiven**

The water supplied in this zone within the Causeway Coast & Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Iron – single exceedance**

Investigations found that this exceedance was most likely caused by a disturbance of mains deposits from older iron mains, with resamples being satisfactory after flushing if required. NI Water has in place an extensive Mains Rehabilitation Programme, which favours mains replacement and zones are prioritised according to need. This programme will continue to maintain and improve the quality of water in your council area over the next few years.

WATER SUPPLY ZONE - ZN0604 - Caugh Hill Dungiven  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contravening PCV	% of samples contravening PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	0.051	< 0.091	< 0.100
2,4-D	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
2,4-DB	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	24	24	0	0.000	5.788	26.443	59.760
Ammonium	mg NH4/l	S	24	24	0	0.000	< 0.010	< 0.012	< 0.012
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.010	< 0.036	0.092
Arsenic	ug/l As	S	8	8	0	0.000	< 0.300	< 0.306	0.350
Bentazone	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Benzene	ug/l	S	8	8	0	0.000	0.015	< 0.019	< 0.020
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	< 0.001	< 0.005	0.009
Bromate	ug/l	S	8	8	0	0.000	< 0.300	< 2.288	3.600
Bromoxynil	ug/l	AS	8	8	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.005	0.010	0.018
Chloride	mg Cl/l	S	8	8	0	0.000	16.892	23.526	33.551
Chlorotoluron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.099	0.193	0.318
Clopyralid	ug/l	AS	8	8	0	0.000	< 0.006	< 0.014	0.027
Clostridium perfringens (sulph red)	No./100 ml	AS	52	52	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	24	24	0	0.000	0.000	0.042	1.000
Colony Counts 37 (48hrs)	No./1 ml	S	24	24	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	24	24	0	0.000	0.800	1.500	2.290
Conductivity	uS/cm 20 C	AS	52	52	0	0.000	180.000	224.692	309.000
Copper	mg Cu/l	S	8	8	0	0.000	0.001	0.002	0.010
Cyanide	ug/l	AS	8	8	0	0.000	0.590	1.899	3.000
Dicamba	ug/l	AS	8	8	0	0.000	< 0.012	< 0.012	< 0.012
Dichlorprop	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Diuron	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
E. coli	No./100 ml	S	48	48	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	8	0	0.000	< 0.020	< 0.022	0.026
Fluroxypyr	ug/l	AS	8	8	0	0.000	< 0.005	< 0.005	< 0.005
Free - Residual disinfectant	mg Cl/l	S	48	49	0	0.000	< 0.050	< 0.393	0.870
Glyphosate	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	24	24	0	0.000	6.920	8.016	8.870
Iron	ug Fe/l	S	24	24	1	4.167	1.537	32.495	220.800
Isoproturon	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	8	8	0	0.000	0.062	< 0.095	< 0.100
Linuron	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	8	8	0	0.000	< 0.004	< 0.006	0.013
Manganese	ug Mn/l	S	24	24	0	0.000	< 0.100	< 2.357	11.190
Mecoprop	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Mercury	ug/l Hg	S	8	8	0	0.000	0.005	0.023	0.098
Metalaxyl	ug/l	AS	8	8	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	0.470	0.879	1.485
Nitrate	mg NO3/l	S	8	8	0	0.000	0.393	1.801	6.866
Nitrite	mg NO2/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Odour	Diln No	S	24	24	1	4.167	0.000	0.250	6.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	8	8	0	0.000	< 0.050	< 0.050	< 0.050
Phorate	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	8	8	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	8	8	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	8	8	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	8	8	0	0.000	< 0.006	< 0.006	< 0.006
Selenium	ug/l Se	S	8	8	0	0.000	0.178	0.282	0.506

WATER SUPPLY ZONE - ZN0604 - Caugh Hill Dungiven  
 Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven ing PCV	% of samples contraven ing PCV	Concentration or value (all samples)		
							Auth Dep	Min.	Mean
Sodium	S	8	8		0	0.000	11.239	14.085	18.142
Sulphate	S	8	8		0	0.000	42.076	62.736	90.499
Taste	S	24	24		1	4.167	0.000	0.250	6.000
Tebuconazole	AS	8	8		0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	S	8	8		0	0.000	< 0.200	< 0.281	0.570
Tetrachloromethane	S	8	8		0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	S	48	49		0	0.000	0.120	0.469	0.960
Total Indicative Dose	AS	1	1		0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	AS	8	8		0	0.000	1.160	1.661	2.260
Total Trihalomethanes	S	8	8		0	0.000	35.000	58.086	88.200
Total coliforms	S	48	48		0	0.000	0.000	0.000	0.000
Triclopyr	AS	8	8		0	0.000	< 0.004	< 0.004	< 0.004
Tritium	AS	1	1		0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	S	24	24		0	0.000	0.060	0.191	0.670

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 15409

This zone has a surface water source :R4306

PCV Exceedances:

Sample failed 20-MAY-2015 (ZN0604AE) Iron = 221 ug Fe/.

Sample failed 18-FEB-2015 (ZN0604AE) Odour = 6 Diln No.

Sample failed 18-FEB-2015 (ZN0604AE) Taste = 6 Diln No.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point



## **2015 WATER SUPPLY COMMENTARY**

### **ZN0607 - Corrody Derry**

The water supplied in this zone within the Causeway Coast & Glens council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2007 except for the following parameter(s): -

#### **Pesticides – Monitored at Authorised Supply point**

NI Water analyses for 30 individual pesticides, herbicides and algaecides, with an exceedance of the individual standard detected for MCPA. The exceedance was most likely caused by high rainfall events, which could have caused increased herbicide wash off from the catchment area into the supply for Ballinrees WTW.

WATER SUPPLY ZONE - ZN0607 - Corrody Derry

Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
1,2 Dichloroethane	ug/l	S	8	8	0	0.000	0.052	< 0.085	< 0.100
2,4-D	ug/l	AS	16	16	0	0.000	< 0.004	< 0.007	0.015
2,4-DB	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Aluminium	ug Al/l	S	52	52	0	0.000	4.909	23.596	68.060
Ammonium	mg NH4/l	S	52	52	0	0.000	0.005	< 0.012	< 0.012
Antimony	ug/l Sb	S	8	8	0	0.000	< 0.010	< 0.052	0.116
Arsenic	ug/l As	S	8	8	0	0.000	0.250	0.300	0.361
Bentazone	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Benzene	ug/l	S	8	8	0	0.000	< 0.020	< 0.020	0.022
Benzo(a)pyrene	ug/l	S	8	8	0	0.000	< 0.001	< 0.001	< 0.001
Boron	mg/l B	S	8	8	0	0.000	< 0.001	< 0.007	0.016
Bromate	ug/l	S	8	8	0	0.000	< 0.300	< 2.413	5.500
Bromoxynil	ug/l	AS	16	16	0	0.000	< 0.007	< 0.007	< 0.007
Cadmium	ug/l Cd	S	8	8	0	0.000	0.005	0.010	0.016
Chloride	mg Cl/l	S	8	8	0	0.000	17.929	23.294	32.711
Chlorotoluron	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Chlorpyrifos	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Chromium	ug/l Cr	S	8	8	0	0.000	0.171	0.274	0.529
Clopyralid	ug/l	AS	16	16	0	0.000	< 0.006	< 0.012	0.027
Clostridium perfringens (sulph red)	No./100 ml	AS	104	105	0	0.000	0.000	0.000	0.000
Clostridium perfringens (sulph red)	No./100 ml	AS	52	52	0	0.000	0.000	0.000	0.000
Colony Counts 22	No./1 ml	S	52	52	0	0.000	0.000	0.000	0.000
Colony Counts 37 (48hrs)	No./1 ml	S	52	52	0	0.000	0.000	0.000	0.000
Colour	mg/l Pt/Co	S	52	52	0	0.000	0.690	1.392	2.060
Conductivity	uS/cm 20 C	AS	52	52	0	0.000	180.000	224.692	309.000
Copper	mg Cu/l	S	8	8	0	0.000	0.001	0.001	0.002
Cyanide	ug/l	AS	16	16	0	0.000	< 0.500	< 1.331	3.000
Dicamba	ug/l	AS	16	16	0	0.000	< 0.001	< 0.011	< 0.012
Dichlorprop	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Diuron	ug/l	AS	16	16	0	0.000	< 0.003	< 0.004	0.007
E. coli	No./100 ml	S	144	145	0	0.000	0.000	0.000	0.000
Enterococci	No./100ml	S	8	8	0	0.000	0.000	0.000	0.000
Epoxiconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Fenpropimorph	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Fluoride	mg F/l	S	8	8	0	0.000	0.016	0.023	0.044
Fluroxypyr	ug/l	AS	16	16	0	0.000	< 0.005	< 0.008	0.014
Free - Residual disinfectant	mg Cl/l	S	144	145	0	0.000	0.110	0.351	0.900
Glyphosate	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Hydrogen Ion	pH value	S	52	52	0	0.000	7.110	7.777	8.750
Iron	ug Fe/l	S	52	52	0	0.000	1.711	10.998	58.000
Isoproturon	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Lead	ug Pb/l	S	8	8	0	0.000	0.088	0.176	0.660
Linuron	ug/l	AS	16	16	0	0.000	< 0.006	< 0.006	< 0.006
MCPA	ug/l	AS	16	16	1	6.250	< 0.004	< 0.029	0.170
Manganese	ug Mn/l	S	52	52	0	0.000	< 0.100	< 1.778	9.535
Mecoprop	ug/l	AS	16	16	0	0.000	< 0.003	< 0.009	0.021
Mercury	ug/l Hg	S	8	8	0	0.000	0.008	0.021	0.084
Metalaxyl	ug/l	AS	16	16	0	0.000	< 0.005	< 0.005	< 0.005
Metoxuron	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Metribuzin	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Nickel	ug Ni/l	S	8	8	0	0.000	0.616	0.946	1.636
Nitrate	mg NO3/l	S	8	8	0	0.000	< 0.400	< 2.856	6.527
Nitrite	mg NO2/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Odour	Diln No	S	52	52	1	1.923	0.000	0.058	3.000
PAH - Sum of four substances	ug/l	S	8	8	0	0.000	< 0.010	< 0.010	< 0.010
Pendimethalin	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Pesticides - Total Substances	ug/l	AS	16	16	0	0.000	< 0.050	< 0.079	0.260
Phorate	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Pirimicarb	ug/l	AS	16	16	0	0.000	< 0.003	< 0.003	< 0.003
Propachlor	ug/l	AS	16	16	0	0.000	< 0.004	< 0.004	< 0.004
Propiconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Propyzamide	ug/l	AS	16	16	0	0.000	< 0.010	< 0.010	< 0.010
Prothioconazole	ug/l	AS	16	16	0	0.000	< 0.006	< 0.006	< 0.006

WATER SUPPLY ZONE - ZN0607 - Corrody Derry

Printed On 11-JAN-2016 : NI Water : Period 01-JAN-2015 to 31-DEC-2015 incl.

Parameter	U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV	No. Of samples contraven	% of samples contraven	Concentration or value (all samples)		
							Auth Dep	ing PCV	ing PCV
Selenium	ug/l Se	S	8	8	0	0.000	0.176	0.412	0.591
Sodium	mg Na/l	S	8	8	0	0.000	11.474	13.700	18.443
Sulphate	mg SO4/l	S	8	8	0	0.000	33.080	53.929	78.722
Taste	Diln No	S	52	52	0	0.000	0.000	0.000	0.000
Tebuconazole	ug/l	AS	16	16	0	0.000	< 0.002	< 0.002	< 0.002
Tetrachloroethene/Trichloroethene - S	ug/l	S	8	8	0	0.000	< 0.200	< 0.373	0.730
Tetrachloromethane	ug/l	S	8	8	0	0.000	< 0.100	< 0.100	< 0.100
Total - Residual disinfectant	mg Cl/l	S	144	145	0	0.000	0.160	0.430	0.950
Total Indicative Dose	mSv/year	AS	2	2	0	0.000	< 0.100	< 0.100	< 0.100
Total Organic Carbon	mg C/l	AS	8	8	0	0.000	1.160	1.661	2.260
Total Trihalomethanes	ug/l	S	8	8	0	0.000	34.400	58.600	88.600
Total coliforms	No./100 ml	S	144	145	0	0.000	0.000	0.000	0.000
Triclopyr	ug/l	AS	16	16	0	0.000	< 0.004	< 0.009	0.020
Tritium	Bq/l	AS	2	2	0	0.000	< 5.000	< 5.000	< 5.000
Turbidity	NTU	S	52	52	0	0.000	0.060	0.164	0.650

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 56503

This zone has a surface water source :R1701

PCV Exceedances:

Sample failed 17-AUG-2015 (W1701POUT) MCPA = 0.1700 ug/.

Sample failed 05-AUG-2015 (ZN0607AE) Odour = 3 Diln No.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point