

Drinking Water Quality Report for Northern Ireland 2019

Mid-Ulster District Council

Water Quality by Northern Ireland Council Area

This local council report is designed to demonstrate water quality by individual council area based on the percentage 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 99.9% 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 that 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 and council 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.

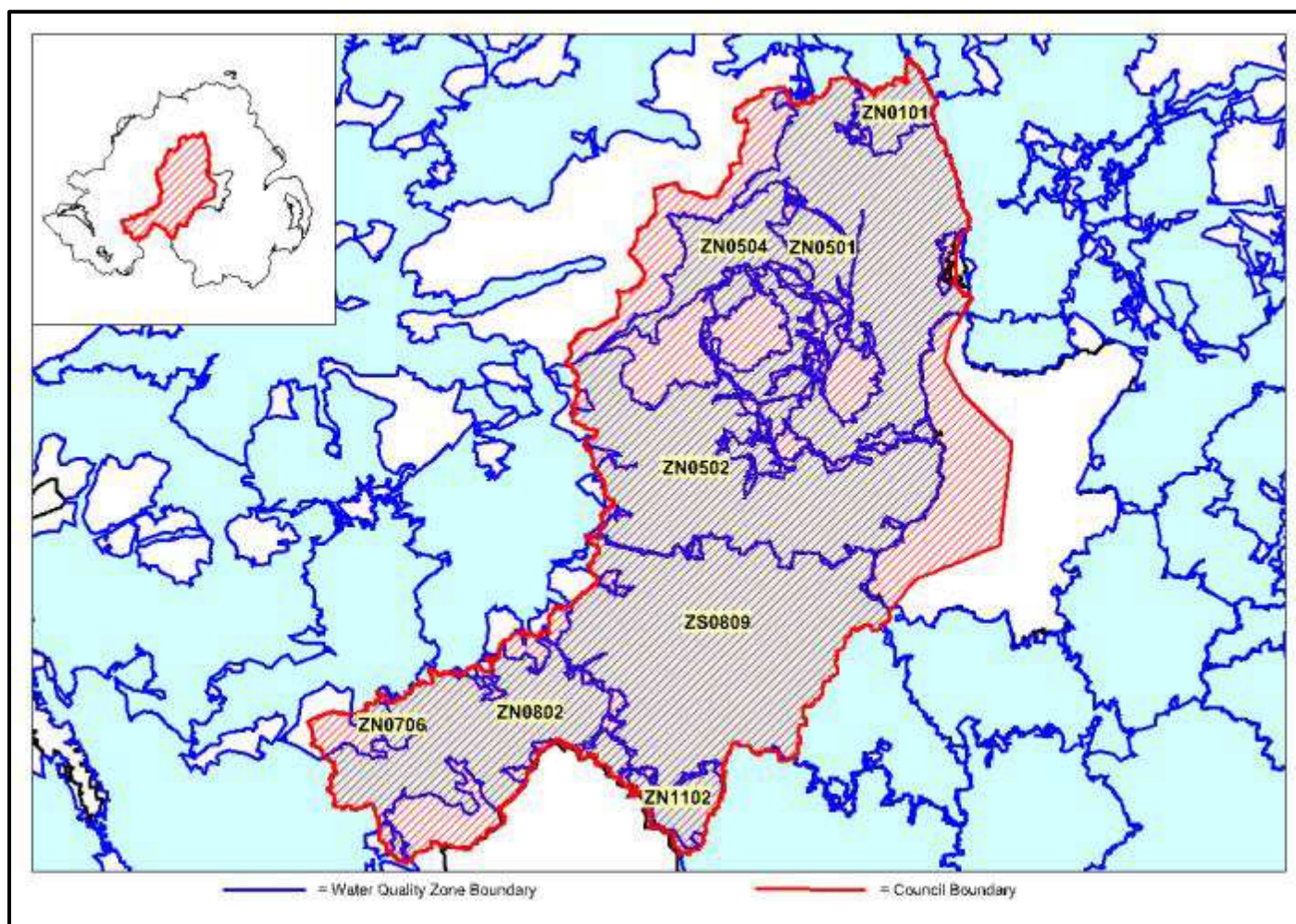
The report also details Capital Work Programmes affecting the council area, which directly related to water quality during the reporting period.

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.

A change to the Drinking Water Quality Regulations in 2017 resulted in a reduction of testing frequencies for some parameters at Authorised Supply Points for 2018 onwards. This has slightly lowered the percentage Compliance at Customer Tap at council level, but has not affected the overall compliance.

NI Water has identified the need to deliver a significant volume of water mains 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 Water mains Rehabilitation Framework, within which it undertakes work on a Northern Ireland wide basis as identified by the zonal study programme of work.

Mid-Ulster District Council



Percentage Compliance at Customer Tap (including Supply Points)

| | Target | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------|--------|-------|-------|-------|-------|-------|
| Northern Ireland Compliance | 99.7% | 99.8% | 99.8% | 99.8% | 99.8% | 99.8% |
| Mid-Ulster Compliance | 99.7% | 99.8% | 99.8% | 99.9% | 99.9% | 99.9% |

2019 water supply zones wholly or partially within the council area:

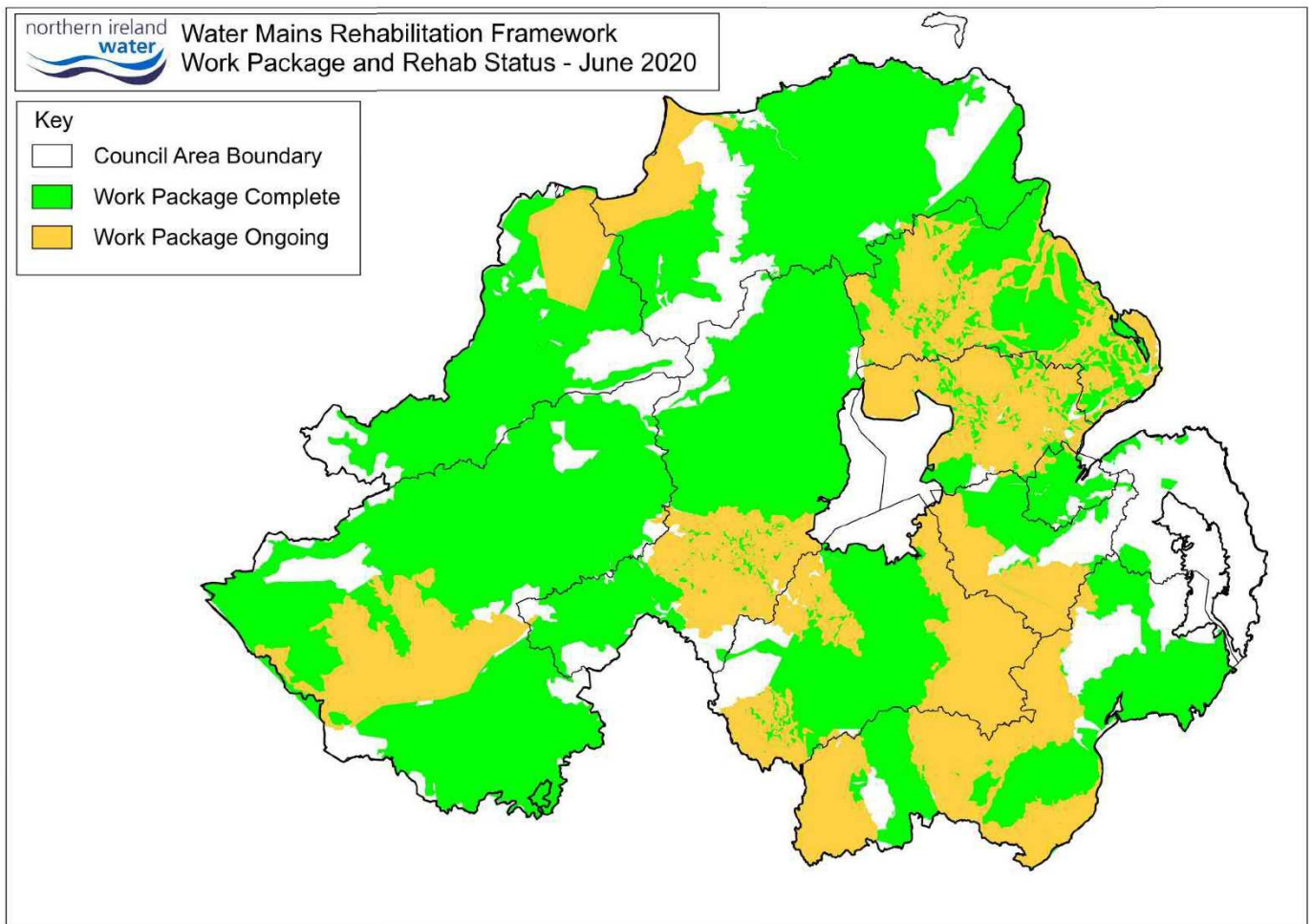
| Zone Code | Zone Name | Zone Code | Zone Name |
|-----------|----------------------|-----------|----------------------------|
| ZN0101 | Ballinrees Coleraine | ZN0706 | Lough Macrory Killyclogher |
| ZN0501 | Moyola Magherafelt | ZN0802 | Killyhevin Enniskillen |
| ZN0502 | Lough Fea Cookstown | ZN1102 | Seagahan Armagh |
| ZN0504 | Moyola Unagh Morneal | ZS0809 | Castor Bay Dungannon |
| ZN0705 | Lough Macrory Beragh | | |

2019 water quality Capital Works Programmes affecting the council area:

A6 Castledawson to Randalstown
 Altmore - Watermain Rehabilitation
 Central Zone Resilience
 Compiling Prioritised Lead Comms Pipe Work Packages
 Cookstown - Watermain Improvements
 Cookstown Watermain Improvements
 Facilities Management Review
 Feasibility Study for using Groundwater Abstraction
 Granville Dungannon Invest NI Watermain Extension
 Lough Fea Clear Water Basin Capacity Increase

Major Incident Mitigation Project Region Freeze Thaw Improvements
Omagh - Watermain Rehab
PC10 Security and Emergency Measures Surveys
PC15 Lead Communication Pipe Replacement Programme
PC15 Professional Services Framework Watermain Network
PC15 Service Reservoir Sample Taps
PC15 Watermain Rehabilitation - Belfast South
PC15 Year 1 Base Maintenance - Chlorine Dosing Sites
Replacement Watermain 2014/15 - Reactive, Bundle 2
Review benefits of UV Disinfection treatment within NIW clean water
Service Reservoir Security
Southern Zone Resilience
Water Infrastructure Investment Model - Antrim North
Water Infrastructure Investment Model - Moyola Magherafelt
Water Infrastructure Investment Model - Tyrone North
Water Resource and Supply Resilience Plan
Water Treatment Works Effluent Quality
Watermain Rehabilitation

Water Mains Rehabilitation Framework Current Work Package Status



The map above shows the extent of the current Water Mains 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 that do not receive public water supply.

Water Quality Events

Serious Drinking Water Quality Events in 2019

| Date of Serious Event | Area and Estimate of Population/ Properties Potentially Affected | Nature and Cause of Serious Event | Associated Council Area(s) |
|-----------------------|--|---|---|
| 08/01/19 – 16/01/19 | Drummaroad WTW (427,990 Population) | A <i>Cryptosporidium</i> oocyst was detected in the works final water. Further oocysts were detected at Conlig Low, Lisnabreeny, and Russells Quarter SRs. The most probable cause of this event was <i>Cryptosporidium</i> oocysts in the raw water were not removed by the treatment process. | Belfast City; Lisburn & Castlereagh City; Newry, Mourne & Down District; and North Down & Ards Borough. |
| 09/01/19 – 16/01/19 | Dunore Point WTW (669,761 Population) | A <i>Cryptosporidium</i> oocyst was detected in the works final water. Further oocysts were detected in the works final water and at Westland SR. The most probable cause of this event was <i>Cryptosporidium</i> oocysts in the raw water were not removed by the treatment process. | Antrim & Newtownabbey Borough; Belfast City; Lisburn & Castlereagh City; and Mid & East Antrim Borough. |

Significant Drinking Water Quality Events in 2019

| Date of Significant Event | Area and Estimate of Population/ Properties Potentially Affected | Nature and Cause of Significant Event | Associated Council Area(s) |
|---------------------------|--|---|---|
| 20/01/19 – 15/02/19 | Drummaroad WTW (427,990 population) | Elevated levels of aluminium occurred in the works final water due to treatment difficulties. An enforcement notice was already in place at the time of this event. | Belfast City; Lisburn & Castlereagh City; Newry, Mourne & Down District; and North Down & Ards Borough. |
| 04/02/19 – 07/02/19 | Drummaroad WTW (427,990 population) | <i>Clostridium perfringens</i> were detected in the works final water and Ballykine SR. There were treatment issues at Drummaroad WTW at the time of these contraventions. Further samples taken in relation to this event were satisfactory. | Belfast City; Lisburn & Castlereagh City; Newry, Mourne & Down District; and North Down & Ards Borough. |
| 09/02/19 – 10/02/19 | Castor Bay WTW (406,556 population) | A contravention of the turbidity standard occurred in the final water at Forked Bridge WTW. The elevated turbidity was caused by treatment difficulties at Castor Bay WTW which supplies Forked Bridge final water. | Armagh Banbridge Craigavon District; Belfast City; Lisburn & Castlereagh City; Mid-Ulster District; and Newry Mourne & Down District. |
| 29/04/19 – 23/09/19 | Derg WTW (38,989 population) | Contraventions of the individual pesticide standard for MCPA occurred in the works final water due to insufficient treatment to remove the elevated levels of MCPA in the raw water. MCPA is present in the raw | Derry City & Strabane and Fermanagh & Omagh District. |

| Date of Significant Event | Area and Estimate of Population/ Properties Potentially Affected | Nature and Cause of Significant Event | Associated Council Area(s) |
|---------------------------|--|---|---|
| | | <p>water due to use of pesticide products containing MCPA for weed control within the catchment area for the River Derg and River Strule.</p> <p>An Interreg VA funded Source to Tap project commenced in 2017. The reduction of MCPA within the drinking water catchment is a focus for the project. The Project is led by NI Water and delivered in partnership with Irish Water, Agri-Food and Biosciences Institute, East Border Region, Ulster University and The Rivers Trust. The Project will run for 5 years, 2017- 2021.</p> <p>There is an ongoing enforcement notice issued by the Inspectorate in relation to this matter.</p> | |
| 04/05/19 – 11/05/19 | Killymore SR (1066 properties) | Following a burst on the Tullywhisker to Rathkelly trunk main, there were difficulties achieving a permanent repair Tankering was required over a number of days to maintain supply from Rathkelly and Killymore SRs. Bottled water was provided to customers who were unable to be kept on supply. | Derry City & Strabane. |
| 15/05/19 – 16/12/19 | Rathlin WTW (296 population) | The elevated level of bromoform (produced by the disinfection of the raw water which has a high bromide level) in the works final water led to trihalomethane (THM) contraventions and WHO Index values for THMs > 1. An enforcement notice was closed by the Inspectorate in December 2019 following completion of the required remediation measures. | Causeway Coast & Glens Borough. |
| 28/05/19 – 03/06/19 | Ballybogey Road, Ballymoney (2 properties) | Coliform bacteria contraventions led to “Boil Water before Use until Further Notice” advice being issued to two properties. The contraventions occurred following a burst main caused by a third party contractor. | Causeway Coast & Glens Borough. |
| 29/05/20 – 01/06/19 | Dorisland WTW (137,571 population) | A <i>Cryptosporidium</i> oocyst was detected in the works final water. All subsequent samples were satisfactory. | Antrim & Newtownabbey Borough; Belfast City; and Mid & East Antrim Borough. |
| 04/06/19 – 06/06/19 | Ballybracken Drumdarragh SR (384 properties) | Following a burst at the inlet to Ballybracken Drumdarragh SR, tankering into the SR was required to increase storage levels and maintain the supply to customers. | Mid & East Antrim Borough. |
| 05/06/19 – 07/06/19 | Killylane WTW (54,597 population) | Contraventions of the aluminium parameter occurred in the works final water due to treatment issues caused by operational work at the site. | Mid & East Antrim Borough. |
| 11/06/19 – 02/07/19 | Ballinrees WTW (181,270 population) | Odour contraventions occurred in the works final water and related supply area following issues with the treatment process. | Causeway Coast & Glens Borough and Derry City & Strabane. |
| 18/06/19 – 23/06/19 | Clooney Road & Carnamuff Road, | Coliform bacteria contraventions following operational work led to “Boil Water before | Causeway Coast & Glens Borough. |

| Date of Significant Event | Area and Estimate of Population/ Properties Potentially Affected | Nature and Cause of Significant Event | Associated Council Area(s) |
|---------------------------|--|---|---|
| | Ballykelly (2 properties) | Use until Further Notice" advice being issued to two properties. | |
| 27/06/19 – Present | Mill Road, Kilcoo (4 properties) | Samples taken in response to customer complaints contravened the iron and turbidity standards (above the Health Notification Values) due to the condition of the iron mains. | Newry Mourne & Down District. |
| 01/07/19 – 12/09/19 | Seafin Road, Ballyroney (8 properties) | Samples taken in response to customer complaints contravened the iron and turbidity standards (above the Health Notification Values) due to the condition of the iron mains. The main was replaced in September 2019 and samples are now satisfactory. | Newry Mourne & Down District. |
| 11/07/19 – 12/07/19 | Rathlin WTW (296 population) | A turbidity contravention occurred in the works final water following excavation work relating to a new treatment process on the site. | Causeway Coast & Glens Borough. |
| 18/07/19 – 15/08/19 | Seagahan WTW (37,940 population) | Contraventions of the aluminium and turbidity parameters (above the Health Notification Values) occurred in the works final water following treatment difficulties. DWI has since audited this works. | Armagh Banbridge Craigavon District. |
| 06/08/19 – 14/08/19 | Glenhordial WTW (12,040 population) | A Contravention of the individual pesticide standard for MCPA occurred in the works final water due to insufficient treatment to remove the elevated levels of MCPA in the raw water. MCPA is present in the raw water due to use of pesticide products containing MCPA for weed control within the catchment area for Glenhordial. | Fermanagh & Omagh District. |
| 22/08/19 – 30/08/19 | Kennaught Terrace, Limavady (26 properties) | <i>E.coli</i> and coliform bacteria contraventions led to "Boil Water before Use until Further Notice" advice being issued to 26 properties. The contraventions were probably caused by local contamination. | Causeway Coast & Glens Borough. |
| 19/08/19 - Present | Ballymageough Road, Kilkeel (5 properties) | Samples taken in response to customer complaints contravened the iron and turbidity standards (above the Health Notification Values) due to the condition of the iron mains. | Newry Mourne & Down District. |
| 23/08/19 – 26/08/19 | Drummaroad WTW (427,990 population) | Elevated levels of aluminium occurred in the works final water due to treatment difficulties. An enforcement notice was already in place at the time of this event. | Belfast City; Lisburn & Castlereagh City; Newry, Mourne & Down District; and North Down & Ards Borough. |
| 31/08/19 – 08/09/19 | Killylane WTW (54,597 population) | Elevated aluminium levels occurred in the works final water following treatment difficulties. | Mid & East Antrim Borough. |

| Date of Significant Event | Area and Estimate of Population/ Properties Potentially Affected | Nature and Cause of Significant Event | Associated Council Area(s) |
|---------------------------|--|--|---|
| 03/09/19 – 04/09/19 | Ballinrees WTW (181,270 population) | Contraventions of the aluminium and turbidity standards occurred in the works final water, and in the related distribution system. This was caused by treatment process difficulties. | Causeway Coast & Glens Borough and Derry City & Strabane. |
| 04/09/19 – 17/09/19 | Park View, Cloughoge, Newry (8 properties) | Contamination of the mains water supply occurred following a burst main caused by a third party contractor. The contractor was involved in a clean-up operation following a fire. There were taste, odour, and appearance complaints from customers. | Newry Mourne & Down District. |
| 23/09/19 – 11/11/19 | Caugh Hill WTW (79,029 population) | Contraventions of the trihalomethanes (THMs) parameter occurred in the works final water and related supply area following treatment difficulties. | Causeway Coast & Glens Borough and Derry City & Strabane. |
| 27/10/19 – 15/11/20 | Killylane WTW (54,597 population) | A contravention of the aluminium parameter occurred in the works final water. Following an investigation, NI Water were unable to identify the cause of the contravention. | Mid & East Antrim Borough. |
| 28/10/19 – 29/10/19 | Altnahinch WTW (33,310 population) | A contravention of the turbidity parameter occurred in the works final water following operational work to clean the Clear Water Tank. | Causeway Coast & Glens Borough. |
| 30/10/19 – 15/11/19 | Killyhevlin WTW (80,001 population) | <i>Cryptosporidium</i> oocysts were detected in the works final water. Following an investigation, NI Water were unable to identify the cause of the contraventions. | Fermanagh & Omagh District. |
| 30/10/19 – 08/04/20 | Stewarts Road, Annalong (5 properties) | Samples taken in response to customer complaints contravened the iron standard due to the condition of the iron mains. The main was replaced in March 2020 and the iron level is now satisfactory. | Newry Mourne & Down District. |
| 05/11/19 – 06/11/19 | Altnahinch WTW (33,310 population) | A contravention of the turbidity parameter occurred in the works final water following operational work to clean the Clear Water Tank. | Causeway Coast & Glens Borough. |
| 18/11/19 – 20/12/19 | Rathlin WTW (296 population) | Salty/astringent tastes were detected in the works final water. NI Water were unable to identify the cause of the tastes. | Causeway Coast & Glens Borough. |

After investigations during the reporting period, there were also eight events categorised by DWI as “Minor”, and twelve events categorised as “Not Significant”.

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) 2017, 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 laboratories carry out over 100,000 sophisticated tests to ensure quality standards are met. The Drinking Water Inspectorate (DWI) within the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA) 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 (ppm)
- 1 microgram per litre (µg/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)
- µS/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.

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 μ S/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

Coliform bacteria

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 (NO₂ and NO₃)

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

- PCV for nitrite = 0.5 mg NO₂/l
- PCV for nitrate = 50 mg NO₃/l

Chloride (Cl)

Chloride in water originates from natural sources such as mineral deposits. It can contribute to taste that 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 (SO₄)

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 SO₄/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, please contact us at waterline@niwater.com

Zonal Commentaries and Public Registers

2019 WATER SUPPLY COMMENTARY

ZN0103 - Ballinrees East

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) 2017.

WATER SUPPLY ZONE - ZN0103 - Ballinrees East
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Max. |
| 1,2 Dichloroethane | ug/l | S | 8 | 9 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.002 | 0.005 |
| 2,4-DB | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.012 |
| Aluminium | ug Al/l | S | 24 | 24 | 0 | 0.000 | 8.400 | 24.142 | 53.000 |
| Ammonium | mg NH4/l | S | 24 | 26 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.086 | 0.109 | 0.200 |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.300 | < 0.300 |
| Asulam | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.005 | < 0.006 | < 0.017 |
| Bentazone | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 9 | 0 | 0.000 | < 0.020 | < 0.021 | < 0.030 |
| Benzo(a)pyrene | ug/l | S | 8 | 9 | 0 | 0.000 | 0.000 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.008 | 0.011 | 0.013 |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.536 | 1.500 |
| Bromoxynil | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.005 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | 0.012 |
| Chloride | mg Cl/l | S | 8 | 8 | 0 | 0.000 | 21.000 | 23.250 | 25.000 |
| Chlorotoluron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | 0.190 | 0.279 | 0.470 |
| Clopyralid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.007 | 0.016 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 10.708 | 178.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 27.333 | 548.000 |
| Colour | mg/l Pt/Co | S | 24 | 24 | 0 | 0.000 | 1.000 | 1.454 | 2.900 |
| Conductivity | uS/cm 20 C | S | 24 | 24 | 0 | 0.000 | 180.000 | 321.667 | 370.000 |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.001 | 0.007 | 0.022 |
| Cyanide | ug/l CN | AS | 8 | 8 | 0 | 0.000 | 2.300 | < 3.300 | < 5.500 |
| Dicamba | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 |
| Dichlorprop | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Dimethenamid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.003 | < 0.006 |
| E. coli | No./100 ml | S | 72 | 74 | 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 | < 0.005 |
| Fenpropimorph | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.020 | < 0.020 |
| Fluroxypyr | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.005 | < 0.012 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 72 | 74 | 0 | 0.000 | 0.060 | 0.181 | 0.390 |
| Glyphosate | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.012 |
| Hydrogen Ion | pH value | S | 24 | 24 | 0 | 0.000 | 7.090 | 7.551 | 7.810 |
| Iron | ug Fe/l | S | 24 | 24 | 0 | 0.000 | < 2.000 | < 26.738 | 82.000 |
| Isoproturon | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.100 | < 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 | 0.003 | 0.019 | 0.051 |
| MCPB | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.005 | < 0.014 |
| Manganese | ug Mn/l | S | 24 | 24 | 0 | 0.000 | < 0.100 | < 1.294 | 2.700 |
| Mecoprop | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.005 | 0.010 |
| Mercury | ug/l Hg | S | 8 | 6 | 0 | 0.000 | < 0.010 | < 0.021 | 0.059 |
| Metalaxyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 |
| Metamitron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.010 |
| Metoxuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Metribuzin | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 1.200 | 1.388 | 1.700 |
| Nitrate | mg N/l | S | 8 | 8 | 0 | 0.000 | 1.300 | 2.050 | 3.600 |
| Nitrate/Nitrite Formula | | S | 8 | 8 | 0 | 0.000 | < 0.026 | < 0.041 | < 0.072 |
| Nitrite | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 24 | 24 | 1 | 4.167 | 0.000 | 0.208 | 5.000 |
| Oxamyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.009 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | 0.000 | < 0.000 | < 0.000 |

| WATER SUPPLY ZONE - ZN0103 - Ballinrees East | | | | | | | | | | |
|---|-------------------|---|---------------------------------------|----------|--------------------------------|------------------------------|---|----------|----------|--|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Min. | Mean | Max. | |
| Pendimethalin ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 | |
| Pesticides - Total Substances ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.050 | < 0.054 | 0.070 | |
| Phorate ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 | |
| Pirimicarb ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 | |
| Propachlor ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 | |
| Propiconazole ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 | |
| Propyzamide ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 | |
| 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 | < 0.216 | 0.280 | |
| Sodium mg Na/l | S | 8 | 8 | | 0 | 0.000 | 15.000 | 16.125 | 17.000 | |
| Sulphate mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 59.000 | 66.875 | 74.000 | |
| Taste Diln No | S | 24 | 24 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Tebuconazole ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.004 | |
| Tetrachloroethene/Trichloroethene - S ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 | |
| Tetrachloromethane ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 | |
| Total - Residual disinfectant mg Cl/l | S | 72 | 74 | | 0 | 0.000 | 0.150 | 0.289 | 0.510 | |
| 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 | 2.000 | 2.550 | 3.500 | |
| Total Trihalomethanes ug/l | S | 8 | 8 | | 0 | 0.000 | 49.000 | 68.125 | 94.000 | |
| Total coliforms No./100 ml | S | 72 | 74 | | 0 | 0.000 | 0.000 | 0.230 | 16.000 | |
| Triclopyr ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 | |
| Tritium Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 | |
| Turbidity NTU | S | 24 | 24 | | 0 | 0.000 | 0.110 | 0.232 | 0.470 | |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 27710

This zone has a surface water source :R1701

PCV Exceedances:

Sample failed 11-JUN-2019 (ZN0103AE) Odour = 5 Diln No.

Sample failed 15-AUG-2019 (ZN0103AE) Total coliforms = 1 No./100.

Sample failed 28-AUG-2019 (ZN0103AE) Total coliforms = 16 No./100.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

2019 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) 2017.

| WATER SUPPLY ZONE - ZN0501 - Moyola Magherafelt | | | | | | | | | | |
|---|-------------------|---|---------------------------------------|-----|---|---|---|---------|---------|--|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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) | | | |
| | | | | | | | Min. | Mean | Max. | |
| 1,2 Dichloroethane | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 | |
| 2,4-D | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 | |
| 2,4-DB | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 | |
| Aluminium | ug Al/l | S | 36 | 36 | 0 | 0.000 | 19.000 | 36.917 | 57.000 | |
| Ammonium | mg NH4/l | S | 36 | 37 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 | |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.110 | 0.120 | 0.130 | |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.323 | 0.390 | |
| Asulam | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 | |
| Bentazone | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 | |
| Benzene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.023 | < 0.041 | |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 | |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.011 | 0.013 | 0.014 | |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.731 | 1.400 | |
| Bromoxynil | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 | |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | 0.010 | 0.012 | 0.013 | |
| Chloride | mg Cl/l | S | 8 | 8 | 0 | 0.000 | 4.000 | 20.500 | 26.000 | |
| Chlorotoluron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 | |
| Chlorpyrifos | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | 0.210 | 0.280 | 0.340 | |
| Clopyralid | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 | |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 16 | 16 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Colony Counts 22 | No./1 ml | S | 36 | 36 | 0 | 0.000 | 0.000 | 0.250 | 8.000 | |
| Colony Counts 37 (48hrs) | No./1 ml | S | 36 | 36 | 0 | 0.000 | 0.000 | 0.139 | 3.000 | |
| Colour | mg/l Pt/Co | S | 36 | 36 | 0 | 0.000 | < 1.000 | < 1.144 | 1.700 | |
| Conductivity | uS/cm 20 C | S | 36 | 37 | 0 | 0.000 | 340.000 | 387.838 | 420.000 | |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.004 | 0.022 | 0.039 | |
| Cyanide | ug/l CN | AS | 16 | 17 | 0 | 0.000 | 2.300 | < 3.435 | < 5.500 | |
| Dicamba | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 | |
| Dichlorprop | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 | |
| Diiflufenican | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 | |
| Dimethenamid | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 | |
| Diuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 | |
| E. coli | No./100 ml | S | 108 | 109 | 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 | 17 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.005 | |
| Fenpropimorph | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 | |
| Flufenacet | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.005 | |
| Fluoride | mg F/l | S | 8 | 8 | 0 | 0.000 | 0.020 | 0.020 | 0.021 | |
| Fluroxypyr | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.005 | < 0.011 | < 0.018 | |
| Free - Residual disinfectant | mg Cl/l | S | 108 | 108 | 0 | 0.000 | 0.090 | 0.496 | 0.920 | |
| Glyphosate | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.017 | |
| Hydrogen Ion | pH value | S | 36 | 38 | 0 | 0.000 | 7.500 | 7.749 | 7.890 | |
| Iron | ug Fe/l | S | 36 | 36 | 0 | 0.000 | < 2.000 | < 9.164 | 52.000 | |
| Isoproturon | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 | |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.165 | 0.620 | |
| Linuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 | |
| MCPA | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.013 | 0.054 | |
| MCPB | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.014 | |
| Manganese | ug Mn/l | S | 36 | 36 | 0 | 0.000 | < 0.100 | < 0.716 | 7.900 | |
| Mecoprop | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.003 | 0.008 | |
| Mercury | ug/l Hg | S | 8 | 6 | 0 | 0.000 | < 0.010 | < 0.020 | < 0.050 | |
| Metalaxyl | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 | |
| Metamitron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 | |
| Metazachlor | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 | |
| Metoxuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Metribuzin | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 1.300 | 1.850 | 3.300 | |
| Nitrate | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.400 | < 1.920 | 4.700 | |
| Nitrate/Nitrite Formula | | S | 8 | 8 | 0 | 0.000 | < 0.000 | < 0.037 | < 0.094 | |
| Nitrite | mg N/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 | |
| Oxamyl | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.010 | < 0.023 | |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.000 | < 0.000 | 0.003 | |

| WATER SUPPLY ZONE - ZN0501 - Moyola Magherafelt | | | | | | | | | | |
|---|------------|-------------------|---|---------------------------------------|-----------------|---|---|---|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A & Freq. | No. of samples planned per annum | No. of samples taken in year | PCV Auth Dep | No. Of samples contraven ing PCV | % of samples contraven ing PCV | Concentration or value (all samples) | | |
| | | | | | | | | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 16 | 17 | | 0 | 0.000 | 0.005 | 0.048 | 0.096 |
| Phorate | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Pirimicarb | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Propiconazole | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.006 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | 0.200 | 0.226 | 0.310 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 14.000 | 15.250 | 16.000 |
| Sulphate | mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 81.000 | 84.625 | 92.000 |
| 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 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| 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 | 0.150 | 0.630 | 1.030 |
| Total Indicative Dose | mSv/year | AS | 2 | 2 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total Organic Carbon | mg C/l | S | 8 | 8 | | 0 | 0.000 | 2.000 | 2.500 | 3.000 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 36.000 | 49.625 | 76.000 |
| Total coliforms | No./100 ml | S | 108 | 109 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.007 | 0.014 |
| Tritium | Bq/l | AS | 2 | 2 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 36 | 36 | | 0 | 0.000 | 0.100 | 0.155 | 0.420 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 44556

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

2019 WATER SUPPLY COMMENTARY

ZN0502 - Lough Fea Cookstown

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) 2017.

WATER SUPPLY ZONE - ZN0502 - Lough Fea Cookstown
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Max. |
| 1,2 Dichloroethane | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| 2,4-DB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.012 |
| Aluminium | ug Al/l | S | 24 | 24 | 0 | 0.000 | 3.700 | 13.538 | 50.000 |
| Ammonium | mg NH4/l | S | 24 | 24 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.097 | 0.118 | 0.140 |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.300 | < 0.300 |
| Asulam | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.010 | < 0.017 |
| Bentazone | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.003 |
| Benzene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.021 | < 0.030 |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.004 | 0.004 | 0.005 |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.386 | < 0.990 |
| Bromoxynil | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.007 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Chloride | mg Cl/l | S | 8 | 8 | 0 | 0.000 | 8.300 | 9.800 | 11.000 |
| Chlorotoluron | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.141 | 0.170 |
| Clopyralid | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.007 | < 0.013 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.292 | 7.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.083 | 1.000 |
| Colour | mg/l Pt/Co | S | 24 | 24 | 0 | 0.000 | < 1.000 | < 1.238 | 2.700 |
| Conductivity | uS/cm 20 C | S | 24 | 24 | 0 | 0.000 | 110.000 | 121.667 | 130.000 |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.003 | 0.035 | 0.099 |
| Cyanide | ug/l CN | AS | 8 | 9 | 0 | 0.000 | 2.300 | < 3.733 | < 5.500 |
| Dicamba | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.012 | < 0.014 | < 0.017 |
| Dichlorprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.009 |
| Dimethenamid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| 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 | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.009 |
| Flufenacet | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.020 | < 0.020 |
| Fluroxypyr | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.005 | < 0.010 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 72 | 72 | 0 | 0.000 | 0.050 | 0.574 | 1.030 |
| Glyphosate | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.012 |
| Hydrogen Ion | pH value | S | 24 | 24 | 0 | 0.000 | 6.930 | 7.223 | 7.910 |
| Iron | ug Fe/l | S | 24 | 24 | 0 | 0.000 | < 2.000 | < 21.988 | 78.000 |
| Isoproturon | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.136 | 0.250 |
| Linuron | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.006 |
| MCPA | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.012 | 0.043 |
| MCPB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.007 | < 0.014 |
| Manganese | ug Mn/l | S | 24 | 24 | 0 | 0.000 | < 0.100 | < 0.799 | 2.600 |
| Mecoprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Mercury | ug/l Hg | S | 8 | 5 | 0 | 0.000 | < 0.010 | < 0.011 | 0.015 |
| Metalaxyl | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.007 | < 0.012 |
| Metamitron | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 |
| Metoxuron | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 0.560 | 0.976 | 1.500 |
| Nitrate | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.400 | < 0.545 | 0.780 |
| Nitrate/Nitrite Formula | | S | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.010 | < 0.016 |
| Nitrite | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oxamyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.011 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.001 |

| WATER SUPPLY ZONE - ZN0502 - Lough Fea Cookstown | | | | | | | | | | |
|---|------------|-------------------|---|---------------------------------------|-----------------|---|---|---|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A & Freq. | No. of samples planned per annum | No. of samples taken in year | PCV Auth Dep | No. Of samples contraven ing PCV | % of samples contraven ing PCV | Concentration or value (all samples) | | |
| | | | | | | | | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.003 | < 0.005 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 8 | 9 | | 0 | 0.000 | 0.005 | 0.040 | 0.051 |
| Phorate | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.004 | < 0.007 | < 0.012 |
| Pirimicarb | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.004 | < 0.007 | < 0.012 |
| Propiconazole | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.007 |
| Prothioconazole | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.203 | 0.220 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 4.600 | 5.363 | 6.000 |
| Sulphate | mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 27.000 | 28.875 | 33.000 |
| Taste | Diln No | S | 24 | 24 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tebuconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| 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 | 0.110 | 0.645 | 1.070 |
| 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 | 1.200 | 1.850 | 2.500 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 35.000 | 53.125 | 74.000 |
| Total coliforms | No./100 ml | S | 72 | 72 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.004 | < 0.007 | < 0.012 |
| Tritium | Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 24 | 24 | | 0 | 0.000 | < 0.100 | < 0.139 | 0.280 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 25684

This zone has a surface water source :R1302

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

2019 WATER SUPPLY COMMENTARY

ZN0504 - Moyola Unagh Mormeal

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) 2017.

WATER SUPPLY ZONE - ZN0504 - Moyola Unagh Mormeal
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Max. |
| 1,2 Dichloroethane | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| 2,4-DB | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 |
| Aluminium | ug Al/l | S | 24 | 25 | 0 | 0.000 | 17.000 | 29.600 | 49.000 |
| Ammonium | mg NH4/l | S | 24 | 24 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.013 |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.110 | 0.123 | 0.140 |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.325 | 0.430 |
| Asulam | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 |
| Bentazone | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.023 | < 0.041 |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.001 | 0.011 | 0.014 |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.680 | 1.200 |
| Bromoxynil | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | 0.010 | 0.011 | 0.015 |
| Chloride | mg Cl/l | S | 8 | 8 | 0 | 0.000 | 19.000 | 22.625 | 25.000 |
| Chlorotoluron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | 0.180 | 0.314 | 0.460 |
| Clopyralid | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 16 | 16 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.417 | 7.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.042 | 1.000 |
| Colour | mg/l Pt/Co | S | 24 | 24 | 0 | 0.000 | 1.000 | 1.150 | 2.000 |
| Conductivity | uS/cm 20 C | S | 24 | 24 | 0 | 0.000 | 120.000 | 346.667 | 410.000 |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.005 | 0.011 | 0.033 |
| Cyanide | ug/l CN | AS | 16 | 17 | 0 | 0.000 | 2.300 | < 3.435 | < 5.500 |
| Dicamba | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 |
| Dichlorprop | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Dimethenamid | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| E. coli | No./100 ml | S | 36 | 38 | 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 | 17 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 8 | 0 | 0.000 | 0.020 | 0.022 | 0.027 |
| Fluroxypyr | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.005 | < 0.011 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 36 | 37 | 0 | 0.000 | 0.050 | 0.320 | 1.490 |
| Glyphosate | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.017 |
| Hydrogen Ion | pH value | S | 24 | 25 | 0 | 0.000 | 7.120 | 7.705 | 7.900 |
| Iron | ug Fe/l | S | 24 | 24 | 0 | 0.000 | < 2.000 | < 22.567 | 71.000 |
| Isoproturon | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.275 | 1.500 |
| Linuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 |
| MCPA | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.013 | 0.054 |
| MCPB | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.014 |
| Manganese | ug Mn/l | S | 24 | 24 | 0 | 0.000 | < 0.100 | < 0.732 | 1.700 |
| Mecoprop | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.001 | < 0.003 | 0.008 |
| Mercury | ug/l Hg | S | 8 | 5 | 0 | 0.000 | < 0.010 | < 0.047 | 0.170 |
| Metalaxyl | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Metamitron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 |
| Metoxuron | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 16 | 17 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 0.980 | 1.848 | 4.400 |
| Nitrate | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.400 | < 2.143 | 4.900 |
| Nitrate/Nitrite Formula | | S | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.043 | < 0.098 |
| Nitrite | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oxamyl | ug/l | AS | 16 | 16 | 0 | 0.000 | < 0.003 | < 0.010 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.000 | < 0.000 | < 0.000 |

| WATER SUPPLY ZONE - ZN0504 - Moyola Unagh Mormeal | | | | | | | | | | |
|---|------------|------------|--------------------|---------------------|----------|----------------------|----------------------|------------------------|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A | No. of | No. of | PCV | No. Of | % of | Concentration or value | | |
| | | & Freq. | samples planned | samples taken in | | samples contraven | samples contraven | (all samples) | | |
| | | | per annum | year | Auth Dep | ing PCV | ing PCV | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 16 | 17 | | 0 | 0.000 | 0.005 | 0.048 | 0.096 |
| Phorate | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Pirimicarb | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Propiconazole | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.002 | < 0.006 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.229 | 0.310 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 12.000 | 14.875 | 22.000 |
| Sulphate | mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 66.000 | 74.875 | 88.000 |
| Taste | Diln No | S | 24 | 24 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tebuconazole | ug/l | AS | 16 | 16 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Tetrachloromethane | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total - Residual disinfectant | mg Cl/l | S | 36 | 37 | | 0 | 0.000 | 0.110 | 0.464 | 1.770 |
| Total Indicative Dose | mSv/year | AS | 2 | 2 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total Organic Carbon | mg C/l | S | 8 | 8 | | 0 | 0.000 | 1.800 | 2.313 | 2.600 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 41.000 | 51.875 | 65.000 |
| Total coliforms | No./100 ml | S | 36 | 38 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 16 | 17 | | 0 | 0.000 | < 0.004 | < 0.007 | 0.014 |
| Tritium | Bq/l | AS | 2 | 2 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 24 | 24 | | 0 | 0.000 | 0.110 | 0.179 | 0.310 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 13981

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

2019 WATER SUPPLY COMMENTARY

ZN0705 - Lough Macrory Beragh

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) 2017.

| WATER SUPPLY ZONE - ZN0705 - Lough Macrory Beragh | | | | | | | | | | |
|---|-------------------|---|---------------------------------------|-----|--|--|---|----------|----------|--|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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) | | | |
| | | | | | | | Min. | Mean | Max. | |
| 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 | < 0.001 | < 0.002 | < 0.004 | |
| 2,4-DB | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.012 | |
| Aluminium | ug Al/l | S | 24 | 24 | 0 | 0.000 | < 1.000 | < 8.354 | < 36.000 | |
| Ammonium | mg NH4/l | S | 24 | 24 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 | |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.015 | 0.036 | 0.056 | |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | < 0.300 | < 0.300 | < 0.300 | |
| Asulam | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.010 | < 0.017 | |
| Bentazone | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 | |
| Benzene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.021 | < 0.030 | |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 | |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.003 | 0.004 | 0.005 | |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | 2.400 | 2.900 | 3.500 | |
| Bromoxynil | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 | |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | 0.012 | |
| Chloride | mg Cl/l | S | 8 | 8 | 0 | 0.000 | 13.000 | 14.875 | 17.000 | |
| Chlorotoluron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 | |
| Chlorpyrifos | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.123 | 0.160 | |
| Clopyralid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 | |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Colony Counts 22 | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.208 | 5.000 | |
| Colony Counts 37 (48hrs) | No./1 ml | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.125 | 2.000 | |
| Colour | mg/l Pt/Co | S | 24 | 24 | 0 | 0.000 | < 1.000 | < 1.013 | 1.300 | |
| Conductivity | uS/cm 20 C | S | 24 | 24 | 0 | 0.000 | 150.000 | 160.417 | 190.000 | |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.001 | 0.006 | 0.016 | |
| Cyanide | ug/l CN | AS | 8 | 8 | 0 | 0.000 | < 1.700 | < 2.988 | < 5.500 | |
| Dicamba | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 | |
| Dichlorprop | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 | |
| Diiflufenican | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.009 | |
| Dimethenamid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 | |
| Diuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 | |
| E. coli | No./100 ml | S | 36 | 36 | 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 | < 0.003 | < 0.005 | |
| Fenpropimorph | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 | |
| Flufenacet | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.003 | < 0.005 | |
| Fluoride | mg F/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.020 | < 0.020 | |
| Fluroxypyr | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.009 | < 0.018 | |
| Free - Residual disinfectant | mg Cl/l | S | 36 | 36 | 0 | 0.000 | 0.210 | 0.609 | 1.090 | |
| Glyphosate | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 | |
| Hydrogen Ion | pH value | S | 24 | 24 | 0 | 0.000 | 7.280 | 7.536 | 8.120 | |
| Iron | ug Fe/l | S | 24 | 24 | 0 | 0.000 | < 2.000 | < 11.783 | 71.000 | |
| Isoproturon | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | 0.003 | |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.101 | 0.110 | |
| Linuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 | |
| MCPA | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.002 | 0.008 | |
| MCPB | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.007 | < 0.014 | |
| Manganese | ug Mn/l | S | 24 | 24 | 0 | 0.000 | < 0.100 | < 0.278 | 1.300 | |
| Mecoprop | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 | |
| Mercury | ug/l Hg | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.026 | < 0.050 | |
| Metalaxyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 | |
| Metamitron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 | |
| Metazachlor | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 | |
| Metoxuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Metribuzin | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 0.460 | 0.851 | 2.300 | |
| Nitrate | mg N/l | S | 8 | 8 | 0 | 0.000 | 0.640 | 1.880 | 3.300 | |
| Nitrate/Nitrite Formula | | S | 8 | 8 | 0 | 0.000 | < 0.013 | < 0.038 | < 0.066 | |
| Nitrite | mg N/l | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 | |
| Odour | Diln No | S | 24 | 24 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Oxamyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.008 | < 0.021 | |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.001 | |

| WATER SUPPLY ZONE - ZN0705 - Lough Macrory Beragh | | | | | | | | | | |
|---|------------|-------------------|---|---------------------------------------|----------|--------------------------------|------------------------------|---|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.008 | < 0.045 | < 0.050 |
| Phorate | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Pirimicarb | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Propiconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 8.900 | 9.950 | 11.000 |
| Sulphate | mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 29.000 | 32.875 | 38.000 |
| Taste | Diln No | S | 24 | 24 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tebuconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Tetrachloromethane | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total - Residual disinfectant | mg Cl/l | S | 36 | 36 | | 0 | 0.000 | 0.350 | 0.696 | 1.170 |
| 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 | 0.930 | 1.204 | 1.700 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 18.000 | 34.125 | 49.000 |
| Total coliforms | No./100 ml | S | 36 | 36 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Tritium | Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 24 | 24 | | 0 | 0.000 | < 0.100 | < 0.130 | 0.250 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 11703

This zone has a surface water source :R4523

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

2019 WATER SUPPLY COMMENTARY

ZN0801 - Belleek Garrison

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) 2017.

WATER SUPPLY ZONE - ZN0801 - Belleek Garrison
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl.

| Parameter | U/A & Freq. | No. of samples planned per annum | No. of samples taken in year | PCV Auth Dep | No. Of samples contraven ing PCV | % of samples contraven ing PCV | Concentration or value (all samples) | | |
|-------------------------------------|-------------------|---|---------------------------------------|-----------------|---|---|---|---------|---------|
| | | | | | | | Min. | Mean | Max. |
| 1,2 Dichloroethane | ug/l | S | 8 | 9 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| 2,4-DB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 |
| Aluminium | ug Al/l | S | 12 | 13 | 0 | 0.000 | 7.600 | 12.485 | 21.000 |
| Ammonium | mg NH4/l | S | 12 | 12 | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 |
| Antimony | ug/l Sb | S | 8 | 9 | 0 | 0.000 | 0.052 | 0.079 | 0.100 |
| Arsenic | ug/l As | S | 8 | 9 | 0 | 0.000 | < 0.300 | < 0.302 | 0.320 |
| Asulam | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 |
| Bentazone | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 9 | 0 | 0.000 | < 0.020 | < 0.023 | < 0.041 |
| Benzo(a)pyrene | ug/l | S | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 9 | 0 | 0.000 | 0.009 | 0.011 | 0.012 |
| Bromate | ug BrO3/l | S | 8 | 9 | 0 | 0.000 | 1.300 | 1.667 | 1.900 |
| Bromoxynil | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 9 | 0 | 0.000 | < 0.010 | < 0.010 | 0.013 |
| Chloride | mg Cl/l | S | 8 | 9 | 0 | 0.000 | 16.000 | 18.444 | 20.000 |
| Chlorotoluron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 9 | 0 | 0.000 | < 0.100 | < 0.117 | 0.160 |
| Clopyralid | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | 0 | 0.000 | 0.000 | 0.125 | 1.000 |
| Colony Counts 22 | No./1 ml | S | 12 | 12 | 0 | 0.000 | 0.000 | 1.083 | 12.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 12 | 13 | 0 | 0.000 | 0.000 | 1.308 | 12.000 |
| Colour | mg/l Pt/Co | S | 12 | 13 | 0 | 0.000 | < 1.000 | < 1.300 | 1.900 |
| Conductivity | uS/cm 20 C | S | 12 | 13 | 0 | 0.000 | 290.000 | 308.462 | 410.000 |
| Copper | mg Cu/l | S | 8 | 9 | 0 | 0.000 | 0.001 | 0.002 | 0.005 |
| Cyanide | ug/l CN | AS | 8 | 8 | 0 | 0.000 | 1.800 | < 3.075 | < 5.500 |
| Dicamba | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 |
| Dichlorprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.009 |
| Dimethenamid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| E. coli | No./100 ml | S | 24 | 25 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Enterococci | No./100ml | S | 8 | 9 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Epoxiconazole | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 9 | 0 | 0.000 | < 0.020 | < 0.020 | < 0.020 |
| Fluroxypyr | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.009 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 24 | 24 | 0 | 0.000 | 0.070 | 0.481 | 1.140 |
| Glyphosate | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.007 | < 0.017 |
| Hydrogen Ion | pH value | S | 12 | 13 | 0 | 0.000 | 7.540 | 7.742 | 8.210 |
| Iron | ug Fe/l | S | 12 | 13 | 0 | 0.000 | < 2.000 | < 9.362 | 59.000 |
| Isoproturon | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 9 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Linuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 |
| MCPA | ug/l | AS | 8 | 9 | 0 | 0.000 | 0.004 | 0.023 | 0.099 |
| MCPB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.014 |
| Manganese | ug Mn/l | S | 12 | 13 | 0 | 0.000 | < 0.100 | < 0.555 | 4.000 |
| Mecoprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | 0.007 |
| Mercury | ug/l Hg | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.023 | < 0.050 |
| Metalaxyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Metamitron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 |
| Metoxuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 9 | 0 | 0.000 | 0.730 | 0.934 | 1.100 |
| Nitrate | mg N/l | S | 8 | 10 | 0 | 0.000 | 2.200 | 2.690 | 3.500 |
| Nitrate/Nitrite Formula | | S | 8 | 9 | 0 | 0.000 | < 0.044 | < 0.055 | < 0.070 |
| Nitrite | mg N/l | S | 8 | 10 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 12 | 13 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oxamyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.006 | < 0.020 |
| PAH - Sum of four substances | ug/l | S | 8 | 9 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |

| WATER SUPPLY ZONE - ZN0801 - Belleek Garrison | | | | | | | | | | |
|---|-------------------|---|---------------------------------------|----------|--------------------------------|------------------------------|---|----------|----------|--|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Min. | Mean | Max. | |
| Pendimethalin ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 | |
| Pesticides - Total Substances ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.050 | < 0.059 | 0.120 | |
| Phorate ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 | |
| Pirimicarb ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 | |
| Propachlor ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 | |
| Propiconazole ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 | |
| Propyzamide ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 | |
| Prothioconazole ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 | |
| Selenium ug/l Se | S | 8 | 9 | | 0 | 0.000 | < 0.200 | < 0.227 | 0.400 | |
| Sodium mg Na/l | S | 8 | 9 | | 0 | 0.000 | 26.000 | 27.444 | 29.000 | |
| Sulphate mg SO4/l | S | 8 | 9 | | 0 | 0.000 | 56.000 | 60.667 | 66.000 | |
| Taste Diln No | S | 12 | 13 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Tebuconazole ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.004 | |
| Tetrachloroethene/Trichloroethene - S ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 | |
| Tetrachloromethane ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 | |
| Total - Residual disinfectant mg Cl/l | S | 24 | 24 | | 0 | 0.000 | 0.160 | 0.598 | 1.270 | |
| 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 | 9 | | 0 | 0.000 | 1.700 | 2.367 | 3.400 | |
| Total Trihalomethanes ug/l | S | 8 | 9 | | 0 | 0.000 | 37.000 | 58.889 | 76.000 | |
| Total coliforms No./100 ml | S | 24 | 25 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 | |
| Triclopyr ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.004 | < 0.006 | 0.013 | |
| Tritium Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 | |
| Turbidity NTU | S | 12 | 13 | | 0 | 0.000 | < 0.100 | < 0.156 | 0.440 | |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 5025

This zone has a surface water source :R4722

PCV Exceedances:

Sample failed 24-JUL-2019 (W4722OUT) Clostridium perfringens (sulph red) = 1 No./100.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

2019 WATER SUPPLY COMMENTARY

ZN0802 - Killyhevlin Enniskillen

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) 2017.

WATER SUPPLY ZONE - ZN0802 - Killyhevlin Enniskillen
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 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 | Min. | Mean | Max. |
| 1,2 Dichloroethane | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| 2,4-DB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 |
| Aluminium | ug Al/l | S | 76 | 76 | 0 | 0.000 | < 1.000 | < 22.233 | 100.000 |
| Ammonium | mg NH4/l | S | 76 | 76 | 0 | 0.000 | < 0.012 | < 0.012 | 0.024 |
| Antimony | ug/l Sb | S | 8 | 8 | 0 | 0.000 | 0.051 | 0.063 | 0.079 |
| Arsenic | ug/l As | S | 8 | 8 | 0 | 0.000 | 0.300 | 0.344 | 0.470 |
| Asulam | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 |
| Bentazone | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.020 | < 0.025 | < 0.041 |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | 0 | 0.000 | 0.010 | 0.012 | 0.014 |
| Bromate | ug BrO3/l | S | 8 | 8 | 0 | 0.000 | 1.300 | 1.650 | 2.300 |
| Bromoxynil | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | 0 | 0.000 | < 0.010 | < 0.014 | 0.040 |
| Chloride | mg Cl/l | S | 8 | 7 | 0 | 0.000 | 16.000 | 18.286 | 20.000 |
| Chlorotoluron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.269 | 0.460 |
| Clopyralid | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 76 | 76 | 0 | 0.000 | 0.000 | 3.789 | 119.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 76 | 76 | 0 | 0.000 | 0.000 | 1.184 | 22.000 |
| Colour | mg/l Pt/Co | S | 76 | 76 | 0 | 0.000 | < 1.000 | < 1.342 | 2.300 |
| Conductivity | uS/cm 20 C | S | 76 | 76 | 0 | 0.000 | 310.000 | 412.500 | 450.000 |
| Copper | mg Cu/l | S | 8 | 8 | 0 | 0.000 | 0.001 | 0.002 | 0.005 |
| Cyanide | ug/l CN | AS | 8 | 8 | 0 | 0.000 | 1.800 | < 3.088 | < 5.500 |
| Dicamba | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 |
| Dichlorprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Dimethenamid | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| E. coli | No./100 ml | S | 204 | 204 | 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 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.003 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 7 | 0 | 0.000 | < 0.020 | < 0.038 | 0.053 |
| Fluroxypyr | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.005 | < 0.009 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 204 | 204 | 0 | 0.000 | 0.050 | 0.435 | 1.230 |
| Glyphosate | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.009 |
| Hydrogen Ion | pH value | S | 76 | 76 | 0 | 0.000 | 7.380 | 7.895 | 8.550 |
| Iron | ug Fe/l | S | 76 | 76 | 1 | 1.316 | < 2.000 | < 23.696 | 250.000 |
| Isoproturon | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | 0.015 |
| Lead | ug Pb/l | S | 8 | 8 | 0 | 0.000 | < 0.100 | < 0.679 | 4.600 |
| Linuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 |
| MCPA | ug/l | AS | 8 | 9 | 0 | 0.000 | 0.009 | 0.018 | 0.027 |
| MCPB | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.014 |
| Manganese | ug Mn/l | S | 76 | 76 | 1 | 1.316 | < 0.100 | < 3.502 | 92.000 |
| Mecoprop | ug/l | AS | 8 | 9 | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Mercury | ug/l Hg | S | 8 | 5 | 0 | 0.000 | < 0.010 | < 0.035 | 0.069 |
| Metalaxyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Metamitron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 |
| Metoxuron | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | 0 | 0.000 | 0.840 | 1.428 | 2.200 |
| Nitrate | mg N/l | S | 8 | 9 | 0 | 0.000 | < 0.400 | < 2.089 | 4.800 |
| Nitrate/Nitrite Formula | | S | 8 | 9 | 0 | 0.000 | < 0.007 | < 0.042 | < 0.096 |
| Nitrite | mg N/l | S | 8 | 9 | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 76 | 76 | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oxamyl | ug/l | AS | 8 | 8 | 0 | 0.000 | < 0.003 | < 0.011 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | 0 | 0.000 | 0.000 | < 0.000 | < 0.000 |

| WATER SUPPLY ZONE - ZN0802 - Killyhevlin Enniskillen | | | | | | | | | | |
|---|------------|------------|--------------------|---------------------|----------|----------------------|----------------------|------------------------|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A | No. of | No. of | PCV | No. Of | % of | Concentration or value | | |
| | | & Freq. | samples planned | samples taken in | | samples contraven | samples contraven | (all samples) | | |
| | | | per annum | year | Auth Dep | ing PCV | ing PCV | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.018 | < 0.046 | < 0.050 |
| Phorate | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Pirimicarb | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Propiconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.208 | 0.260 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 16.000 | 31.625 | 42.000 |
| Sulphate | mg SO4/l | S | 8 | 7 | | 0 | 0.000 | 65.000 | 106.429 | 120.000 |
| 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 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Tetrachloromethane | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total - Residual disinfectant | mg Cl/l | S | 204 | 204 | | 0 | 0.000 | 0.110 | 0.546 | 1.370 |
| Total Indicative Dose | mSv/year | AS | 1 | 1 | | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Total Organic Carbon | mg C/l | S | 8 | 8 | | 0 | 0.000 | 2.000 | 2.675 | 3.300 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 44.000 | 63.625 | 84.000 |
| Total coliforms | No./100 ml | S | 204 | 204 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Tritium | Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 76 | 76 | | 0 | 0.000 | 0.100 | 0.248 | 1.900 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 79743

This zone has a surface water source :R4701

PCV Exceedances:

Sample failed 25-JUN-2019 (ZN0802AE) Iron = 250 ug Fe/.

Sample failed 04-FEB-2019 (ZN0802AE) Manganese = 92 ug Mn/l.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point

2019 WATER SUPPLY COMMENTARY

ZN1102 - Seagahan Armagh

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) 2017.

| WATER SUPPLY ZONE - ZN1102 - Seagahan Armagh | | | | | | | | | | |
|---|------------|-------|-----------------|------------------|----------|---------|---------|------------------------|----------|---------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A | No. of | No. of | PCV | No. Of | % of | Concentration or value | | |
| | | Freq. | samples planned | samples taken in | | samples | samples | (all samples) | | |
| | | | per annum | year | Auth Dep | ing PCV | ing PCV | Min. | Mean | Max. |
| 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 | < 0.001 | < 0.003 | 0.005 |
| 2,4-DB | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.006 | < 0.012 |
| Aluminium | ug Al/l | S | 36 | 36 | | 1 | 2.778 | < 1.000 | < 29.828 | 560.000 |
| Ammonium | mg NH4/l | S | 36 | 36 | | 0 | 0.000 | < 0.012 | < 0.012 | < 0.012 |
| Antimony | ug/l Sb | S | 8 | 8 | | 0 | 0.000 | 0.120 | 0.131 | 0.160 |
| Arsenic | ug/l As | S | 8 | 8 | | 0 | 0.000 | < 0.300 | < 0.343 | 0.530 |
| Asulam | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 |
| Bentazone | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.020 | < 0.023 | < 0.041 |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | | 0 | 0.000 | 0.009 | 0.011 | 0.013 |
| Bromate | ug BrO3/l | S | 8 | 8 | | 0 | 0.000 | < 0.300 | < 0.585 | 1.700 |
| Bromoxynil | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Chloride | mg Cl/l | S | 8 | 9 | | 0 | 0.000 | 17.000 | 21.333 | 27.000 |
| Chlorotoluron | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | | 0 | 0.000 | 0.100 | 0.195 | 0.300 |
| Clopyralid | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 8 | 8 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 36 | 36 | | 0 | 0.000 | 0.000 | 2.889 | 42.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 36 | 36 | | 0 | 0.000 | 0.000 | 0.167 | 4.000 |
| Colour | mg/l Pt/Co | S | 36 | 36 | | 0 | 0.000 | 1.000 | 1.533 | 2.900 |
| Conductivity | uS/cm 20 C | S | 36 | 36 | | 0 | 0.000 | 310.000 | 383.056 | 450.000 |
| Copper | mg Cu/l | S | 8 | 8 | | 0 | 0.000 | 0.006 | 0.079 | 0.330 |
| Cyanide | ug/l CN | AS | 8 | 8 | | 0 | 0.000 | 4.000 | 5.575 | 6.800 |
| Dicamba | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.012 | < 0.014 | < 0.017 |
| Dichlorprop | ug/l | AS | 8 | 9 | | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Dimethenamid | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| E. coli | No./100 ml | S | 96 | 96 | | 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 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.003 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 9 | | 0 | 0.000 | < 0.020 | < 0.021 | 0.026 |
| Fluroxypyr | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.008 | 0.014 | 0.020 |
| Free - Residual disinfectant | mg Cl/l | S | 96 | 96 | | 0 | 0.000 | < 0.050 | < 0.457 | 1.260 |
| Glyphosate | ug/l | AS | 8 | 7 | | 0 | 0.000 | < 0.003 | < 0.007 | < 0.017 |
| Hydrogen Ion | pH value | S | 36 | 36 | | 0 | 0.000 | 7.060 | 7.376 | 7.670 |
| Iron | ug Fe/l | S | 36 | 36 | | 2 | 5.556 | < 2.000 | < 28.508 | 300.000 |
| Isoproturon | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 1.274 | 7.900 |
| Linuron | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 |
| MCPA | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.009 | 0.014 | 0.024 |
| MCPB | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.007 | < 0.014 |
| Manganese | ug Mn/l | S | 36 | 36 | | 1 | 2.778 | < 0.100 | < 3.252 | 75.000 |
| Mecoprop | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.007 | 0.012 | 0.023 |
| Mercury | ug/l Hg | S | 8 | 5 | | 0 | 0.000 | < 0.010 | < 0.030 | 0.058 |
| Metalaxyl | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Metamitron | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.005 | < 0.010 |
| Metoxuron | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | | 0 | 0.000 | 1.300 | 2.450 | 6.800 |
| Nitrate | mg N/l | S | 8 | 8 | | 0 | 0.000 | 1.400 | 5.875 | 10.000 |
| Nitrate/Nitrite Formula | | S | 8 | 8 | | 0 | 0.000 | < 0.029 | < 0.118 | < 0.200 |
| Nitrite | mg N/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 |
| Oxamyl | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.009 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.000 | < 0.000 | 0.001 |

| WATER SUPPLY ZONE - ZN1102 - Seagahan Armagh | | | | | | | | | | |
|---|------------|------------|--------------------|---------------------|----------|----------------------|----------------------|------------------------|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A | No. of | No. of | PCV | No. Of | % of | Concentration or value | | |
| | | & Freq. | samples planned | samples taken in | | samples contraven | samples contraven | (all samples) | | |
| | | | per annum | year | Auth Dep | ing PCV | ing PCV | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 8 | 8 | | 0 | 0.000 | 0.020 | 0.060 | 0.110 |
| Phorate | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Pirimicarb | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Propachlor | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.012 |
| Propiconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.236 | 0.320 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 19.000 | 40.125 | 52.000 |
| Sulphate | mg SO4/l | S | 8 | 9 | | 0 | 0.000 | 70.000 | 80.444 | 91.000 |
| Taste | Diln No | S | 36 | 36 | | 1 | 2.778 | 0.000 | 0.028 | 1.000 |
| Tebuconazole | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Tetrachloromethane | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total - Residual disinfectant | mg Cl/l | S | 96 | 96 | | 0 | 0.000 | 0.110 | 0.654 | 1.440 |
| 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 | 2.200 | 3.025 | 4.000 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 41.000 | 57.000 | 84.000 |
| Total coliforms | No./100 ml | S | 96 | 96 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Triclopyr | ug/l | AS | 8 | 8 | | 0 | 0.000 | < 0.004 | < 0.015 | 0.038 |
| Tritium | Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 36 | 36 | | 0 | 0.000 | < 0.100 | < 0.165 | 0.490 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 37792

This zone has a surface water source :R2514

PCV Exceedances:

Sample failed 12-AUG-2019 (ZN1102AE) Aluminium = 560 ug Al/.
Sample failed 12-AUG-2019 (ZN1102AE) Iron = 300 ug Fe/.
Sample failed 07-NOV-2019 (ZN1102AE) Iron = 230 ug Fe/.
Sample failed 12-AUG-2019 (ZN1102AE) Manganese = 75 ug Mn/l.
Sample failed 22-MAY-2019 (ZN1102AE) Taste = 1 Diln No.

Notes:

PCV = Prescribed Concentration or Value
U = Undertaking
S = Standard Sampling Frequency
R = Reduced Sampling Frequency
A = Authorised Supply Point

2019 WATER SUPPLY COMMENTARY

ZS0809 - Castor Bay Dungannon

The water supplied in this zone within the Mid Ulster council area complied with all the physical-chemical and microbiological standards laid down in the Water Supply (Water Quality) Regulations (Northern Ireland) 2017 except for the following parameter(s):-

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 because 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.

WATER SUPPLY ZONE - ZS0809 - Castor Bay Dungannon
Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl.

| Parameter | | U/A & Freq. | No. of samples planned per annum | No. of samples taken in year | PCV Auth Dep | No. Of samples contraven ing PCV | % of samples contraven ing PCV | Concentration or value (all samples) | | |
|-------------------------------------|------------|-------------------|---|---------------------------------------|-----------------|---|---|---|----------|---------|
| | | | | | | | | Min. | Mean | Max. |
| | | | | | | | | | | |
| 1,2 Dichloroethane | ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| 2,4-D | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| 2,4-DB | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.005 | < 0.012 |
| Aluminium | ug Al/l | S | 52 | 52 | | 0 | 0.000 | 11.000 | 25.865 | 100.000 |
| Ammonium | mg NH4/l | S | 52 | 52 | | 0 | 0.000 | < 0.012 | < 0.012 | < 0.016 |
| Antimony | ug/l Sb | S | 8 | 8 | | 0 | 0.000 | 0.120 | 0.176 | 0.470 |
| Arsenic | ug/l As | S | 8 | 8 | | 0 | 0.000 | < 0.300 | < 0.309 | 0.340 |
| Asulam | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.005 | < 0.008 | < 0.017 |
| Bentazone | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.001 | < 0.001 | < 0.003 |
| Benzene | ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.020 | < 0.021 | < 0.030 |
| Benzo(a)pyrene | ug/l | S | 8 | 8 | | 0 | 0.000 | < 0.001 | < 0.001 | < 0.002 |
| Boron | mg/l B | S | 8 | 8 | | 0 | 0.000 | 0.012 | 0.014 | 0.015 |
| Bromate | ug BrO3/l | S | 8 | 8 | | 0 | 0.000 | < 0.300 | < 0.429 | < 0.990 |
| Bromoxynil | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.013 |
| Cadmium | ug/l Cd | S | 8 | 8 | | 0 | 0.000 | < 0.010 | < 0.011 | 0.013 |
| Chloride | mg Cl/l | S | 8 | 8 | | 0 | 0.000 | 25.000 | 25.875 | 27.000 |
| Chlorotoluron | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Chlorpyrifos | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Chromium | ug/l Cr | S | 8 | 8 | | 0 | 0.000 | 0.160 | 0.218 | 0.280 |
| Clopyralid | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.007 | 0.035 |
| Clostridium perfringens (sulph red) | No./100 ml | AS | 24 | 24 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Colony Counts 22 | No./1 ml | S | 52 | 52 | | 0 | 0.000 | 0.000 | 0.731 | 35.000 |
| Colony Counts 37 (48hrs) | No./1 ml | S | 52 | 52 | | 0 | 0.000 | 0.000 | 0.154 | 5.000 |
| Colour | mg/l Pt/Co | S | 52 | 52 | | 0 | 0.000 | < 1.000 | < 1.073 | 2.600 |
| Conductivity | uS/cm 20 C | S | 52 | 53 | | 0 | 0.000 | 350.000 | 387.736 | 420.000 |
| Copper | mg Cu/l | S | 8 | 8 | | 0 | 0.000 | 0.002 | 0.017 | 0.074 |
| Cyanide | ug/l CN | AS | 24 | 24 | | 0 | 0.000 | 2.200 | 4.283 | 7.000 |
| Dicamba | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.012 | < 0.013 | < 0.017 |
| Dichlorprop | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.001 | < 0.002 | < 0.004 |
| Diiflufenican | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Dimethenamid | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.006 |
| Diuron | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.003 | < 0.006 |
| E. coli | No./100 ml | S | 192 | 193 | | 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 | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.005 |
| Fenpropimorph | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.009 |
| Flufenacet | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.003 | < 0.005 |
| Fluoride | mg F/l | S | 8 | 8 | | 0 | 0.000 | < 0.020 | < 0.020 | 0.021 |
| Fluroxypyr | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.005 | < 0.010 | < 0.018 |
| Free - Residual disinfectant | mg Cl/l | S | 192 | 192 | | 0 | 0.000 | 0.050 | 0.524 | 1.680 |
| Glyphosate | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.006 | < 0.017 |
| Hydrogen Ion | pH value | S | 52 | 52 | | 0 | 0.000 | 7.200 | 7.511 | 7.730 |
| Iron | ug Fe/l | S | 52 | 52 | | 0 | 0.000 | < 2.000 | < 11.919 | 100.000 |
| Isoproturon | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Lead | ug Pb/l | S | 8 | 8 | | 0 | 0.000 | < 0.100 | < 0.129 | 0.320 |
| Linuron | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.006 | < 0.006 |
| MCPA | ug/l | AS | 24 | 24 | | 0 | 0.000 | 0.002 | 0.007 | 0.020 |
| MCPB | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.006 | < 0.014 |
| Manganese | ug Mn/l | S | 52 | 52 | | 0 | 0.000 | < 0.100 | < 0.938 | 4.700 |
| Mecoprop | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.001 | < 0.003 | 0.011 |
| Mercury | ug/l Hg | S | 8 | 7 | | 0 | 0.000 | < 0.010 | < 0.018 | 0.057 |
| Metalaxyl | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 |
| Metamitron | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.007 |
| Metazachlor | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.010 |
| Metoxuron | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.004 | < 0.008 |
| Metribuzin | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Nickel | ug Ni/l | S | 8 | 8 | | 0 | 0.000 | 1.200 | 1.713 | 3.600 |
| Nitrate | mg N/l | S | 8 | 8 | | 0 | 0.000 | < 0.400 | < 2.374 | 5.000 |
| Nitrate/Nitrite Formula | | S | 8 | 8 | | 0 | 0.000 | < 0.000 | < 0.047 | < 0.100 |
| Nitrite | mg N/l | S | 8 | 8 | | 0 | 0.000 | < 0.010 | < 0.010 | < 0.010 |
| Odour | Diln No | S | 52 | 52 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Oxamyl | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.009 | < 0.023 |
| PAH - Sum of four substances | ug/l | S | 8 | 8 | | 0 | 0.000 | 0.000 | 0.000 | 0.001 |

| WATER SUPPLY ZONE - ZS0809 - Castor Bay Dungannon | | | | | | | | | | |
|---|------------|-------------------|---|---------------------------------------|-----------------|---|---|---|----------|----------|
| Printed On 10-FEB-2020 : NI Water : Period 01-JAN-2019 to 31-DEC-2019 incl. | | | | | | | | | | |
| Parameter | | U/A & Freq. | No. of samples planned per annum | No. of samples taken in year | PCV Auth Dep | No. Of samples contraven ing PCV | % of samples contraven ing PCV | Concentration or value (all samples) | | |
| | | | | | | | | Min. | Mean | Max. |
| Pendimethalin | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.003 | < 0.004 | < 0.008 |
| Pesticides - Total Substances | ug/l | AS | 24 | 24 | | 0 | 0.000 | 0.020 | < 0.046 | < 0.050 |
| Phorate | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 |
| Pirimicarb | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.008 |
| Propachlor | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.005 | < 0.012 |
| Propiconazole | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.003 |
| Propyzamide | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.003 | < 0.007 |
| Prothioconazole | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.005 | < 0.006 |
| Selenium | ug/l Se | S | 8 | 8 | | 0 | 0.000 | < 0.200 | < 0.231 | 0.330 |
| Sodium | mg Na/l | S | 8 | 8 | | 0 | 0.000 | 20.000 | 21.750 | 24.000 |
| Sulphate | mg SO4/l | S | 8 | 8 | | 0 | 0.000 | 62.000 | 75.875 | 89.000 |
| Taste | Diln No | S | 52 | 52 | | 0 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tebuconazole | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.002 | < 0.002 | < 0.004 |
| Tetrachloroethene/Trichloroethene - S | ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.200 | < 0.200 | < 0.200 |
| Tetrachloromethane | ug/l | S | 8 | 9 | | 0 | 0.000 | < 0.100 | < 0.100 | < 0.100 |
| Total - Residual disinfectant | mg Cl/l | S | 192 | 192 | | 0 | 0.000 | 0.150 | 0.713 | 1.850 |
| 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 | 2.000 | 2.550 | 3.900 |
| Total Trihalomethanes | ug/l | S | 8 | 8 | | 0 | 0.000 | 29.000 | 44.875 | 60.000 |
| Total coliforms | No./100 ml | S | 192 | 193 | | 0 | 0.000 | 0.000 | 0.010 | 1.000 |
| Triclopyr | ug/l | AS | 24 | 24 | | 0 | 0.000 | < 0.004 | < 0.006 | 0.019 |
| Tritium | Bq/l | AS | 1 | 1 | | 0 | 0.000 | < 10.000 | < 10.000 | < 10.000 |
| Turbidity | NTU | S | 52 | 53 | | 0 | 0.000 | 0.100 | 0.171 | 0.280 |

Commentary on Water Quality:

A: Supply point authorisation for pesticides and related products.

Population of zone = 75933

This zone has a surface water source :R2308

PCV Exceedances:

Sample failed 30-OCT-2019 (ZS0809AE) Total coliforms = 1 No./100.

Sample failed 31-OCT-2019 (ZS0809AE) Total coliforms = 1 No./100.

Notes:

PCV = Prescribed Concentration or Value

U = Undertaking

S = Standard Sampling Frequency

R = Reduced Sampling Frequency

A = Authorised Supply Point