

## **WATER QUALITY IN SUNDERLAND**

### **REPORT OF THE EXECUTIVE DIRECTOR OF HEALTH, HOUSING AND COMMUNITIES**

#### **1. Purpose of the Report**

- 1.1 Following on from the recently published report by the UK Health Security Agency (UKHSA) into the outbreak of gastro-intestinal illness in participants at the World Triathlon Event held at Sunderland, the report provides an overview of water quality, including legislation governing water quality and to which organisations responsibilities lie.

#### **2. Background**

- 2.1 The UKSHA recently published its report into the outbreak of gastro-intestinal illness in participants at the World Triathlon Event held in Sunderland in July 2023. The conclusions from the UKSHA were that this was an outbreak of gastro-intestinal (GI) infection, mainly caused by norovirus, affecting participants in a large triathlon event, with over 1,200 people taking part over a two-day period. The outbreak control team concluding that the common exposure of all cases having swum in the sea was the most likely source of infection<sup>1</sup>.
- 2.2 Cllr Bond, Member of the Health and Wellbeing Scrutiny Committee, requested that this issue be scheduled as part of the Committee's work programme, as an item related to public health, to look at water quality, the associated legislation and responsible authorities.

#### **3. Water Quality**

- 3.1 With a coastline of around 30,000 kilometres, and several rivers and lakes running through its land, the United Kingdom has a vast amount of water resources at its disposal. Generally, water quality issues are looked after by the Environment Agency. This national environmental regulator is responsible for controlling discharges to rivers, lakes, coastal waters and other water courses.
- 3.2 Certain coastal waters used for bathing and recreation are designated under the Bathing Waters Directive. A classification system for bathing waters was introduced in 2015, with councils required to provide information on the more stringent standards during the bathing season, which runs from 15 May to 30 September each year. Each bathing water beach is given one of the following annual classifications:
  - Excellent - the highest, cleanest class
  - Good - generally good water quality

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<sup>1</sup> Outbreak report Outbreak of gastro-intestinal illness in participants at the World Triathlon Event held at Sunderland, July 2023. Published by North East Health Protection Team on behalf of the Outbreak Control Team December 2023. UKSHA

- Sufficient - the water meets minimum standards
  - Poor - the water has not met the minimum standards. Work is planned to improve bathing waters not yet reaching Sufficient.
- 3.3 All designated bathing waters across the UK are tested for bacteria that are a risk to our health. E.coli and intestinal enterococci are significant indicators of the presence of sewage in waterways. Water quality is tested throughout the bathing season, which runs from 15th May – 30th September in England and Wales, and 1st June – 15th September in Scotland and Northern Ireland.
- 3.4 Samples are taken once a week by the environmental regulator, which for England is the Environment Agency (EA). Samples are tested within 24 hours in a specialist lab. The results of these tests are what are used to classify bathing waters as detailed previously. Polluters and governments have a legal obligation to improve water quality at all bathing waters. If a bathing water is classified as 'poor' for five years in a row, it is de-designated.

#### **4. Water Quality – Sunderland Beaches**

- 4.1 In Sunderland, there are two designated bathing waters located at Roker Beach and Seaburn Beach respectively. Roker Beach is a gently sloping sandy resort beach approximately 1.5 kilometres in length which lies immediately north of the pier at the mouth of the River Wear. The beach has a road access ramp to the northern end and is backed by a promenade for the southern half. While Seaburn Beach is a gently sloping sandy resort beach measuring approximately 1.5 kilometres in length to the north of Sunderland. The beach is backed by a promenade for most of its length<sup>2</sup>.
- 4.2 The Environment Agency, who are responsible for monitoring bathing water quality, have monitored both Roker and Seaburn Beaches for a number of years and the data for 2020-2023 is attached at Appendix 1 of this report. Both beaches have been classified as 'Excellent' throughout the prescribed monitoring periods, with one exception on 11 September 2023 when bathing was not advised, due to pollution from abnormal rainfall. Although it is acknowledged that this does not include testing for norovirus. Further information can be found at the Environment Agency website ([Bathing waters data - sample history](#)). Both beaches also currently have Blue Flag status.
- 4.3 Further to this the Environment Agency also note that there are no active pollution risk forecasts made at either bathing water site. However, any bathing water has the potential to be affected by a pollution incident and if this occurs a pollution risk warning with associated advice against bathing will be issued on this website<sup>3</sup>.
- 4.4 The UKSHA report into the outbreak of gastro-intestinal infection (GI) at the World Triathlon event concluded that this was mainly caused by norovirus. The outbreak control team (OCT) also concluded that the common exposure of all cases was having swum in the sea and that this was the most likely source of infection.
- 4.5 The report also highlighted the potential risk of GI illness associated with open water swimming, with outbreaks reported in many countries involving a range of

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<sup>2</sup> Department for Environment, Food and Rural Affairs

<sup>3</sup> 2023 Bathing Water Profile for Roker and Seaburn Sunderland – Environment Agency

pathogens. Reducing the risk of illness is well-publicised but the report acknowledges that this can be a challenge in events of this nature, particularly where the swimming element is the initial part of the event. Athletes are unlikely to be able to take the time to undertake the general hygiene measures to reduce these risks and will also have hand-to-mouth contact during the remainder of the race.

- 4.6 The OCT recommended in its conclusions that this information should be shared and highlighted with any participants in future events by the event organisers.
- 4.7 It is also worth highlighting that Sunderland City Council's role is primarily defined as a Coast Protection Authority under the Coast Protection Act 1949 (CPA) and has a coastal erosion risk management function under the Flood and Water Management Act 2010. The CPA is administered by DEFRA and is broadly intended to allow Coast Protection Authorities to carry out capital works. The Environment Agency remains the primary sea defence authority for England, while Coast Protection Authorities have two functions; regulating the protection works of others (such as landowners), and promoting their own schemes part-funded by grants from the EA.

## **5. Legislation**

- 5.1 The water and sewerage sectors in England and Wales have to comply with several different Acts of Parliament and European Directives. The legislation covers the following broad areas:
- economic regulation of the sector
  - water supply
  - sewerage services
  - drinking water quality
  - environmental standards
  - customer service
  - flood and drought protection and adaptation.
- 5.2 The Water Act 1989 provided for the privatisation of the former water authorities. Water related legislation (including the Water Act 1989) was subsequently consolidated into new Acts of Parliament. This included the Water Industry Act 1991, which set out the main powers and duties of the water and sewerage companies, thus replacing those set out in the Water Act 1989 and defined the powers of the Water Services Regulation Authority (Ofwat). Also, the Water Resources Act 1991, established the functions of the National Rivers Authority (now the Environment Agency) and introduced water quality classifications and objectives for the first time.
- 5.3 Subsequent acts have continued to modify legislation. The Environment Act 1995 led to restructuring of environmental regulation and placed a duty on the companies to promote the efficient use of water by customers. It created a new body, the Environment Agency. The Flood and Water Management Act 2010 encouraged the use of sustainable urban drainage systems (SUDs) and amended the Water Industry Act to modernise the list of activities that can be restricted by water companies in a drought.

5.4 The majority of the UK's recent environmental legislation regarding water originates in the European Union (EU). Some of the most important directives for the water and sewerage sectors are as follows:

- The **Water Framework Directive** sets objectives and deadlines for improving water quality. It looks overall at both the ecology of the water and its chemical characteristics.
- The **Urban Wastewater Treatment Directive** aims to protect the water environment from being damaged by urban waste water and certain industrial discharges.
- The **Drinking Water Directive** sets quality standards for drinking water and requires drinking water quality to be monitored and reported.
- The **Bathing Water Directive** aims to protect public health and the environment by keeping coastal and inland bathing waters free from pollution.
- The **Sewage Sludge Directive** aims to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man.

## 6. Water Regulatory Bodies and Framework

- 6.1 Since the water and sewerage industry was privatised in 1989 a regulatory framework has been in place to ensure that consumers receive high standards of service at a fair price. The **Department of Environment, Food and Rural Affairs** (DEFRA) sets the overall water and sewerage policy framework in England. This includes standard setting, drafting of legislation and creating special permits (e.g. drought orders) when required.
- 6.2 **Ofwat** are the economic regulator of the water and sewerage sectors. Ofwat's primary responsibilities are to protect the interests of consumers, wherever appropriate by promoting competition, making sure that the water companies properly carry out their functions and ensure that the water companies can finance their functions.
- 6.3 The **Environment Agency** are the environmental regulator of the water and sewerage sector in England. They are the principal adviser to the government on the environment, and the leading public body protecting and improving the environment of England. They also oversee coastal management in the UK, and work in partnership with a range of other organisations to reduce flood risk, promote sustainable development and secure environmental and social benefits.
- 6.4 The **Drinking Water Inspectorate** are the regulator responsible for the quality of drinking water in England and Wales. They check that the water companies in England and Wales supply water that is safe to drink and meets the standards set in the Water Quality Regulations.
- 6.5 The **Consumer Council for Water** represent consumers within the water and sewerage sectors. They also investigate consumer complaints that have not been satisfactorily resolved by the water companies.
- 6.6 **Natural England** are the government's advisor on the natural environment. They provide practical advice, grounded in science, on how best to safeguard England's natural wealth for the benefit of everyone. Their purpose is to protect and improve

England's natural environment and encourage people to enjoy and get involved in their surroundings.

- 6.7 **Northumbrian Water** are the water and sewerage service provider for approximately to 2.7 million people in the north east of England.

## **7. In Summary**

- 7.1 Water quality and the management of the various water systems in the UK are extremely important, from water we drink to sewage treatment and the management and protection of inland and coastal waterways. There is also a raft of legislation and directives which provide the legal framework to the operation, management, and protection of water in England.
- 7.2 As well as legislation there are a number of regulatory bodies which oversee, regulate and monitor the management of water in England, this includes coastal waters, rivers, streams, drinking water and sewerage. Importantly the Environment Agency are responsible for monitoring the quality of bathing water around the English coastline, including both Seaburn and Roker beaches in Sunderland.
- 7.3 A number of regulatory bodies have responsibility for water management while the Local Authority, as the Coast Protection Authority, manages the risk of coastal change on their section of the coast through inspection and maintenance of coastal protection structures in its ownership. These inspections aim to prevent erosion and damage, in the interests of public safety. The legislation does not make it a statutory requirement to defend the coast.
- 7.4 The incident of an outbreak of norovirus at the World Triathlon event has been attributed to the swim element of the event by the UKSHA. Swimming in open water does have its risks, and despite event water quality testing, the water in the harbour area is large and changes rapidly due to the tide. Also prior to the event there was heavy rainfall and adverse weather in the area which as UKSHA reports can have an impact on water quality and has previously been reported as a factor in other outbreaks associated with open swimming.
- 7.5 The UKSHA report does identify some lessons and recommendations that should be followed up by the appropriate bodies including the Environment Agency and British Triathlon when considering future events.

## **8. Recommendations**

- 8.1 That the Health and Wellbeing Scrutiny Committee note and comment on the report.

## **9. Background Papers**

Outbreak report Outbreak of gastro-intestinal illness in participants at the World Triathlon Event held at Sunderland, July 2023. Published by North East Health Protection Team on behalf of the Outbreak Control Team December 2023. UKSHA: [2023 World Triathlon Championship Series Sunderland – UKHSA investigation completed – British Triathlon](#)

Water Act 1989: [Water Act 1989 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1989/24)

Water industry Act 1991: [Water Industry Act 1991 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1991/43/contents)

Water Resources Act 1991: [Water Resources Act 1991 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1991/60/contents)

Flood and Water Management Act 2010: [Flood and Water Management Act 2010 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2010/27/contents)

Ofwat Website: [Home - Ofwat](https://www.ofwat.gov.uk)

DEFRA Website: [Department for Environment, Food & Rural Affairs - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/departments)

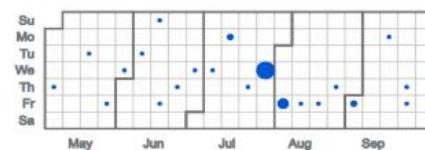
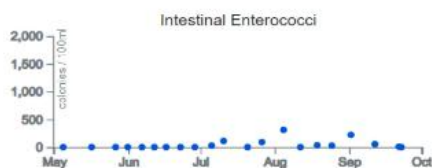
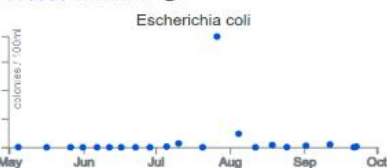
Environment Agency Website: [Environment Agency - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/organisations/environment-agency)

Northumbrian Water Website: [Northumbrian Water | Supplying Water and Sewerage Services in the North East of England \(nwl.co.uk\)](https://www.nwl.co.uk)

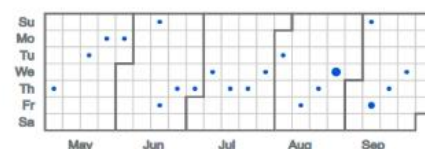
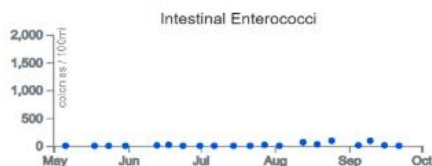
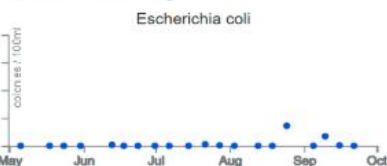
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## Roker - Sunderland

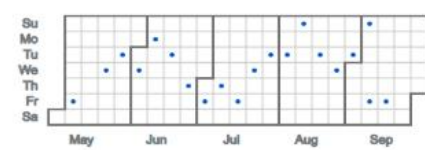
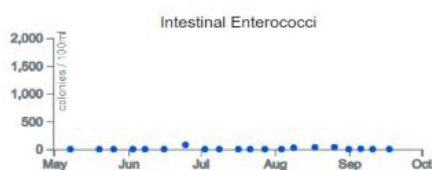
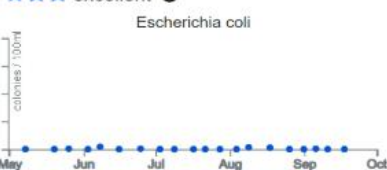
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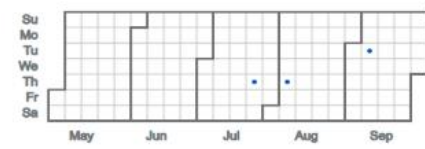
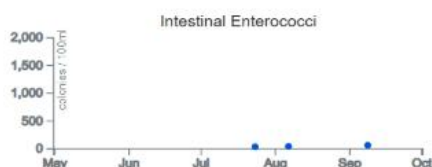
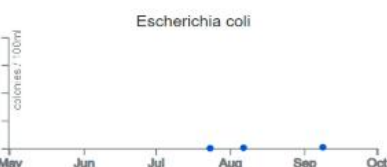
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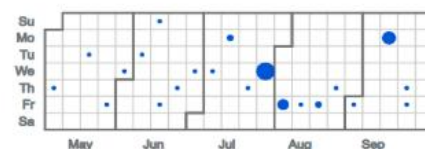
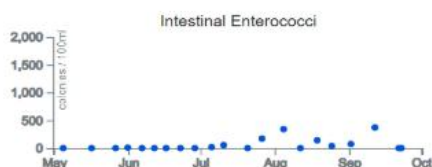
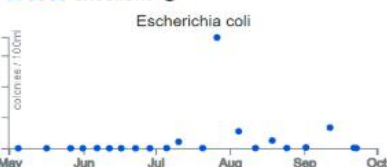


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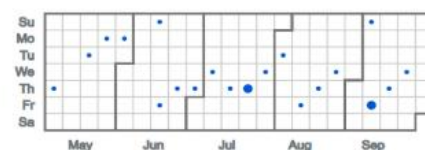
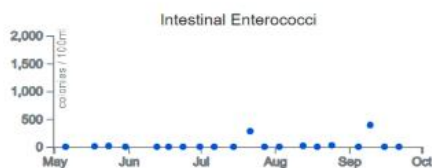
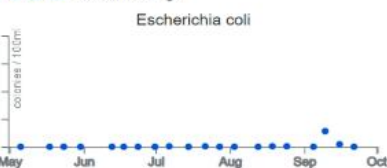


## Seaburn - Sunderland

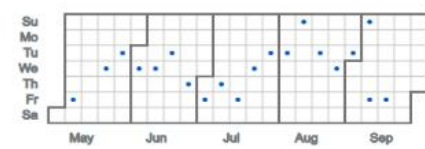
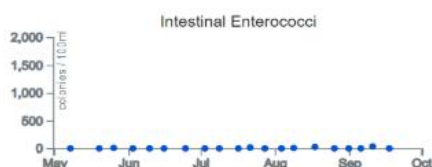
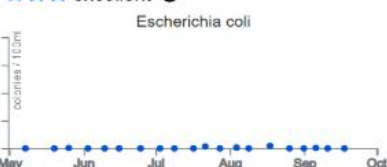
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