



Under the European Union (Drinking Water) Regulations 2014 as amended, the Environmental Protection Agency is the supervisory authority in relation to Irish Water and its role in the provision of public water supplies. This Audit was carried out to assess the performance of Irish Water in providing clean and wholesome water to the visited public supply.

The audit process is a sample on a given date of the facility's operation. Where a finding against a particular issue has been reported this should not be construed to mean that this issue is fully addressed.

### Water Supply Zone

Name of Installation	Doneraile
Organisation	Irish Water
Scheme Code	0500PUB1104
County	Cork
Site Visit Reference No.	SV26157

#### **Report Detail**

Issue Date	05/12/2022
Prepared By	Criona Doyle

## **Site Visit Detail**

16/11/2022	Announced	Yes
10:32	Time Out	11:36
Criona Doyle		
Irish Water: Pat Britton; Tommy Roche; Phil Elvins. Cork County Council (acting under service level agreement to Irish Water): Jason O'Donoghue; John McAuliffe; Pauline McAree; Frances Whoriskey.		
	10:32 Criona Doyle Irish Water: P Cork County	10:32 Time Out   Criona Doyle   Irish Water: Pat Britton; Tommy Roche   Cork County Council (acting under ser

## Summary of Key Findings

(1) The chlorination and fluoridation treatment systems at the Doneraile Water Treatment Plant (WTP) were found to be operating satisfactorily.

(2) There is no treatment barrier in place at the Doneraile Water Treatment Plant to prevent *Cryptosporidium* entering the public water supply.

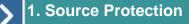
# **Introduction**

The Doneraile Public Water supply serves a population of 2,388 and provides 2,500m3/d of treated water. Treatment at the plant includes disinfection (chlorination) and fluoridation.

The audit was undertaken to assess Irish Water's performance in producing clean and wholesome water.

## Supply Zones Areas Inspected

The auditor examined the treatment processes (chlorination and fluoridation) and the raw water abstraction point (spring). The treated water reservoirs were not visited.



		Answer
1.1	Is the abstraction source(s) adequately protected against contamination?	Yes

#### Comment

Raw water is obtained from the Clogher Spring. The spring is located within a fenced compound in a below ground collection chamber accessed via a sealed and locked cover.

Landuse in the vicinity of the spring is mainly agricultural. At the audit Cork County Council confirmed that the landowners had last been written to in 2008 in relation to the presence of a drinking water supply in proximity to their lands and their obligations under the *European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2022*, as amended.

There are continuous online turbidity and UVT monitors on the raw water. On the day of the audit the turbidity was 0.242 NTU and UVT was 97.7%. The UVT and turbidity monitors have been in place for the last 4 years but trends have only become accessible on SCADA during the week beginning 14/11/22. The trends cannot be viewed on site on the current HMI but trends can be viewed by operational staff on staff mobile phones.

There is a turbidity alarm with automatic plant shutdown linked to the high turbidity shutdown setpoint.



		Answer
.1	Is the disinfection system verified using monitors and alarms, with trended data recorded and accessible?	No
	Comment	

The chlorine trend was viewed at the WTP and a stable residual chlorine trend was observed.

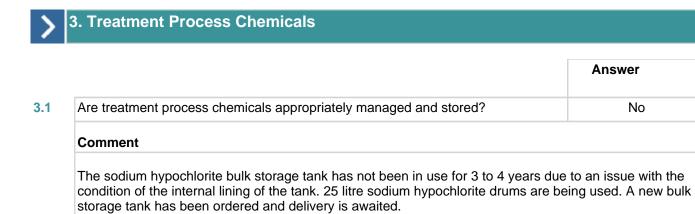
Alarm setpoints cannot be viewed or changed by Cork County Council operational staff at present. The alarm setpoints can only be amended by the automation and instrumentation contractor. A new HMI is planned for the site. The provision of a new panel will allow access to alter the alarm set points to site operational staff following receipt of approval from Engineering staff.

There are satisfactory chlorine warning alarms (high 2.0mg/l and low 0.40mg/l) in operation at the WTP. There is automatic shutdown linked to the low chlorine setpoint of 0.40mg/l but there is no shutdown linked to the high chlorine alarm setpoint.

	Answer
Is the chlorine dosed appropriately?	Yes
Comment	
Chlorine dosing is flow proportional but is not linked to the residual chlorine monit assessed under the Irish Water Disinfection Programme and upgrade works are s in 2023.	

		Answer
	residual chlorine monitored at a suitable sample location after contact time een completed?	Yes
Com	nent	

purposes. The new residual chlorine monitor has been installed and Cork County Council are awaiting the connection and commissioning of the new monitor by the contractor.



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	Answer
Has the protozoal compliance log treatment requirement been identified for water treatment plant?	the No
Comment	

Monitoring for *Cryptosporidium* is being undertaken once per month, since the start of 2022, in accordance with the *Irish Water Rationale for Determining the Frequency of Cryptosporidium Monitoring in Public supplies*. Prior to 2022 monitoring was taking place 4 times per annum. There have been no detections of *Cryptosporidium* to date.