

# Site Visit Report

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	
<b>Name of Installation</b>	Drimoleague
<b>Organisation</b>	Irish Water
<b>Scheme Code</b>	0500PUB4103
<b>County</b>	Cork
<b>Site Visit Reference No.</b>	SV18347

Report Detail	
<b>Issue Date</b>	30/09/2019
<b>Prepared By</b>	Criona Doyle

Site Visit Detail			
<b>Date Of Inspection</b>	18/09/2019	<b>Announced</b>	Yes
<b>Time In</b>	10:00	<b>Time Out</b>	11:02
<b>EPA Inspector(s)</b>	Criona Doyle		
<b>Additional Visitors</b>			
<b>Company Personnel</b>	Irish Water: Deirdre O' Loughlin; Tommy Roche. Cork County Council: Michael Russell (A.S.E.E); Seamus Sutton; Michael Russell (Caretaker).		

## > Summary of Key Findings

Irish Water has not complied with the EPA's Regulation 16 (1) Direction, issued on the 5th of June 2015, to ensure that the drinking water supplied to consumers on the Drimoleague public water supply complies with the trihalomethanes parametric value by the 31st of December 2018.

It is proposed to decommission the Drimoleague Public Water Supply (PWS) and replace the supply with water from the Skibbereen and Environs Water Supply Scheme by 29/06/20 to ensure that the drinking water supplied to consumers complies with the trihalomethane parametric value. This completion date goes beyond the direction deadline.

An update was provided by Irish Water on the works completed to date to connect the Drimoleague PWS to the Skibbereen and Environs Water Supply Scheme. The installation of 9.1km of watermain to connect Drimoleague to the Ballyhilty WTP has been completed. Ground works are taking place at Ballyhilty WTP in advance of the construction of new raw water storage tanks and a new chemical dosing building.

Interim works are taking place at the Drimoleague WTP site to address the inadequate treatment for *Cryptosporidium* with an estimated completion date of 01/10/19. The granular activated carbon filters, pressure filters and UV disinfection system have been installed. The ESB connection was completed on 17/09/19 and this will allow commissioning of the works to commence the week of 25/09/19. Following the completion of the works verification data will be submitted by Irish Water to demonstrate the works have been satisfactorily completed.

## > Introduction

The Drimoleague Public Water Supply (PWS) in Co. Cork serves a population of approximately 629. The Drimoleague PWS is on the EPA's Remedial Action List (RAL) for public water supplies as a result of persistent trihalomethanes failures. This audit was carried out to determine compliance with the EPA's Regulation 16 (1) Direction which required that the drinking water supplied to consumers complied with the trihalomethanes (THM) parametric value no later than 31/12/2018. The Drimoleague PWS is to be decommissioned and replaced by the Skibbereen and Environs Water Supply Scheme to achieve compliance with the THM parametric value.

*Cryptosporidium* has been detected in the Drimoleague supply in 2018 (26/04/18) and 2019 (12/03/19). As an interim measure a containerised pressure filtration system with granular activated carbon and UV disinfection is being installed to provide an adequate barrier against *Cryptosporidium* until the Drimoleague PWS is decommissioned. The audit also included a review of progress with the interim works.

## > Supply Zones Areas Inspected

The treatment plant facilities at Drimoleague were examined to determine progress with the remedial works.

## > 1. Supply on the Remedial Action List

		Answer
1.1	Is the Action Programme on track to meet the Remedial Action List completion date?	Yes
<b>Comment</b>		
The remedial actions to address the elevated levels of THMs are on track to met the current RAL completion date of Q2 2020.		

		Answer
1.2	Do the audit findings support progress made with the Remedial Action List upgrades?	Yes
<b>Comment</b>		
<p>Irish Water confirmed that the works for the Skibbereen and Environs Water Supply Scheme relating to the Drimoleague area have been prioritised and are due for completion by 29/06/20.</p> <p>The following works are required for removal of the supply from the EPA Remedial Action List (RAL): (1) upgrade of Ballyhilty WTP with estimated completion date of 29/06/20; (2) installation of interconnecting pipework from Ballyhilty WTP to Drimoleague WTP estimated completion date of 23/12/19 and (3) decommissioning of Drimoleague WTP estimated completion date 29/06/20.</p> <p>The works completed to date include: (1) Ground works at the Ballyhilty WTP in preparation for the construction of new raw water storage tanks and new chemical dosing building; (2) Construction of 9.1km of the 11km of watermain required to connect the Ballyhilty WTP to the Drimoleague Reservoir; (3) Works are due to commence shortly for the construction of two new 25m<sup>3</sup> water storage tanks to provide 50m<sup>3</sup> treated water storage for the Castledonovan area.</p> <p>Irish Water outlined the verification data for RAL removal will be provided in Q3 2020.</p>		

		Answer
1.3	Is further information needed to assess completion of the Remedial Action List upgrade?	Yes
<b>Comment</b>		
The RAL works are not due for completion until Q2 2020. Irish Water will need to continue to provide quarterly updates to the EPA on progress with the remedial works. Irish Water have indicated verification data will be provided in Q3 2020.		



## 2. Site Specific Issues

2.1

Have the interim remedial works been completed to provide an adequate barrier against *Cryptosporidium* ?

Answer

No

### Comment

On the day of the audit the remedial works had not been completed but were underway. The current treatment process at the site includes slow sand filtration and disinfection by chlorination. This does not provide an adequate barrier against *Cryptosporidium*. The proposed interim remedial works are taking place to ensure an adequate barrier against *Cryptosporidium* is provided until the supply is decommissioned in June 2020. These works include the installation of granular activated carbon filters, a containerised pressure filtration system and UV disinfection.

The following infrastructure has been installed at the Drimoleague WTP: 2 no. granular activated carbon filtration units; 2 no. pressure filters; UV unit; backwash water holding tank; sludge holding tank; UVT monitor; pH monitor and new submersible pumps in outlets from each slow sand filter. The new treatment process had not been commissioned as Irish Water were waiting for the ESB to provide an electrical supply.

The ESB connection went live on 17/09/19 and commissioning is to take place the week commencing 23/09/19. An estimated completion date of 01/10/19 was provided. Verification data will be gathered following the completion of the commissioning phase and this data together with details of the alarms levels and UV shut down settings will be forwarded to the EPA during Quarter 4 2019.

## Recommendations

<b>Subject</b>	Audit Drimoleague	<b>Due Date</b>	30/10/2019
<b>Action Text</b>	<p><b>Recommendation(s)</b></p> <ol style="list-style-type: none"><li>1. Irish Water should progress the planned connection to the Skibbereen and Environs Water Supply Scheme without delay to ensure the water supplied to consumers complies with the trihalomethanes parametric value and continue to provide quarterly updates on progress to the EPA.</li><li>2. Irish Water should submit the verification data for the granular activated carbon filters, pressure filters and UV disinfection unit as per Section 6, Appendix 3 of the EPA <i>Handbook on the Implementation of the Regulations for Water Services Authorities for Public Water Supplies</i>.</li></ol> <p><b>Follow-Up Actions required by Irish Water</b></p> <p>During the audit, Irish Water representatives were advised of the audit findings and that action must be taken as a priority by Irish Water to address the issues raised.</p> <p>This report has been reviewed and approved by Regina Campbell, Drinking Water Team Leader.</p> <p>Irish Water should submit a report to the Agency on or before 30/10/19 detailing how it has dealt with the issues of concern identified during this audit.</p> <p>The report should include details on the action taken and planned to address the various recommendations, including time frame for commencement and completion of any planned work.</p> <p>The EPA also advises that the findings and recommendations from this audit report should, where relevant, be addressed at all other treatment plants operated and managed by Irish Water.</p> <p>Please quote the Reference Number DW2009/350 in any future correspondence in relation to this Report.</p>		