



Drinking Water Audit Report

County:	Donegal	Date of Audit:	29 th March 2018
Plant(s) visited:	Glenties-Ardara Water Treatment Plant	Date of issue of Audit Report:	26 th April 2018
		File Reference:	DW2009/14
		Auditors:	Ms Derval Devaney
Audit Criteria:	<ul style="list-style-type: none"> • The <i>European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014) as amended.</i> • <i>The EPA Handbook on the Implementation of the Regulations for Water Services Authorities for Public Water Supplies (ISBN: 978-1-84095-349-7)</i> • The recommendations specified in the <i>EPA Drinking Water Report.</i> • EPA Drinking Water Advice Notes No's 1 to 15. • The Regulation 10(4) Direction issued by the EPA on 11th December 2014 and associated Action Programme. 		

MAIN FINDINGS

- i. Irish Water has not met the requirement of the EPA's Regulation 10(4)(c) Direction issued on 11th December 2014 and associated agreed Action Programme to address THMs failures in the Fintown public water supply by the 11th February 2017 and THMs continue to exceed the parametric value of 100 µg/l.
- ii. The interim measure to connect Fintown PWS to Glenties-Ardara PWS with the installation of a 5 km pipeline was completed on 25th September 2017. The Fintown Water Treatment Plant is now redundant. However, there is insufficient treatment at the Glenties-Ardara Water Treatment Plant to prevent THMs formation.
- iii. The planned upgrade of the Glenties-Ardara PWS is to provide UV treatment, chlorination and air stripping by the end of 2018 to address the THMs failures in the network.

1. INTRODUCTION

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. The Fintown Public Water Supply (PWS) was on the EPA's Remedial Action List (RAL) as the supply had continuous THMs failures dating back to November 2008 with concentrations up to six times the parameter value of 100 µg/l. The supply was made redundant when replaced by the Glenties-Ardara PWS on 25th September 2017.

This audit was carried out to assess the performance of Irish Water in providing clean and wholesome drinking water and to determine compliance with the EPA's Regulation 10(4) Direction issued to Irish Water on 11th December 2014 and subsequent Action Programme approved by the EPA on 11th February 2015 in accordance with Regulation 10(4) and 10(6) regarding compliance with the trihalomethanes (THMs) parametric value in the Fintown PWS.

The opening meeting commenced at 10:15 am at the Glenties-Ardara water treatment plant. The scope and purpose of the audit was outlined at the opening meeting. The audit process consisted of interviews with staff, review of records and observations made during an inspection of the treatment plant. The audits observations and recommendations are listed in Section 2 and 4 of this report. The following were in attendance during the audit.

<p>Representing Irish Water: Yvonne McMonagle, Water Compliance Analyst; Patrick Carty, Capital Programmes; Natalie Patton, Drinking Water Compliance Graduate.</p> <p>Representing Donegal County Council: Eoin Kerrane, Acting Senior Executive Engineer; Paul McCloskey, Supervisor; Michael Breslin, Waterworks Inspector.</p> <p>Representing the Environmental Protection Agency: Derval Devaney, Inspector.</p>

2. AUDIT OBSERVATIONS

The audit process is a random sample on a particular day of a facility's operation. Where an observation or recommendation against a particular issue has not been reported, this should not be construed to mean that this issue is fully addressed.

<p>1.</p>	<p>Interim Solution</p> <p>The interim solution as outlined in Irish Water’s progress report dated 23rd December 2015 was to connect the Fintown PWS to the Glenties-Ardara PWS by Q3 2016 and thereby make the Fintown Water Treatment Plant redundant.</p> <p>The Fintown PWS was connected to the Glenties-Ardara PWS on 25th September 2017 by the laying of approximately 5 km of pipeline to interconnect the two schemes which enabled the Fintown Water Treatment plant to be made redundant. As a result, the Fintown PWS was removed from the EPA’s RAL in January 2018. However, the Glenties-Ardara PWS is on the EPA’s Remedial Action List, as the supply has continuous THMs failures dating back to 2010 and is lacking a <i>Cryptosporidium</i> barrier.</p> <p>The Glenties-Ardara water supply originates from Lough Anna. Treatment consists of coarse screening via two TEKLEEN® containerised 100 micron filters to remove contaminants such as shrimp larvae followed by chlorination. During the audit Irish Water stated that the treatment plant supplies a population of 3,325 persons and produces 1,534 m³/d of water. Irish Water stated that the on-site reservoir is to house the proposed air-stripping process. There is secondary chlorination at the Ardara reservoir and an alarmed chlorine monitor is present at the inlet and outlet of that reservoir.</p> <p>The EPA raised concerns during the audit of the extended network of 13 km emanating from Glenties-Ardara PWS to serve the Fintown area. This network is lacking a booster chlorination station and a reservoir which may be required to ensure adequately disinfected water is maintained always in the network and to ensure there is a secure supply of water in the event of an incident, for firefighting purposes and during the scouring process.</p>
<p>2.</p>	<p>Long-term Solution</p> <p>The long-term solution as outlined in the approved Irish Water Action Programme dated 11th February 2015 included:</p>

	<ul style="list-style-type: none"> a) Doubling the throughput of Lettermacaward WTP; b) Laying approx. 10.7 km of new pipework to supply water from Lettermacaward PWS to Glenties-Ardara and Fintown; c) Decommissioning of existing Glenties-Ardara WTP and Fintown WTP. <p>In accordance with Regulation 10(4) and 10 (6), the Action Programme submitted by Irish Water dated 30th January 2015 was amended and approved by the EPA on 11th February 2015 and directed Irish Water to complete the proposed upgrade works to ensure compliance with the THMs parametric value in the Fintown PWS as soon as possible, but no later than 11th February 2017.</p> <p>During the audit, Irish Water stated the Glenties-Ardara upgrade works, outlined in Point 1 above, is to address the THMs issue in Fintown and Glenties-Ardara area and should result in the removal the supply from the EPA’s RAL. The timeframe provided during the audit for completion these works is the end of 2018.</p> <p>It is no longer Irish Water’s plan to connect Glenties-Ardara to Lettermacaward PWS. The Glenties-Ardara water treatment plant upgrade is a separate project and is not included in the Capital Investment Programme. The Lettermacaward upgrade is programmed for completion by the end of Q2 2021 and is now to cater for the new water supply zone, Portnoo/Lettermacaward.</p>
<p>3.</p>	<p>Water Quality - THMs Monitoring</p> <p>The audit found that THMs continue to fail to comply with the parametric value of 100 µg/l as set out in the <i>European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014), as amended</i>.</p> <p>THMs are monitored monthly by Irish Water and results for the Glenties- Ardara PWS during 2016, 2017 and 2018 were reviewed during the audit. All results exceeded the THMs parametric value. The most recent results were 114 µg/l on 08/01/2018 and 121 µg/l on 05/02/2018.</p>

3. AUDITORS COMMENTS

The EPA issued a Direction to Irish Water on 11th December 2014 requesting it to submit an Action Programme to address the persistent THMs failures in the Fintown PWS.

In accordance with Regulation 10(6), the Action Programme submitted by Irish Water dated 30th January 2015 was amended and approved by the EPA on 11th February 2015 and directed Irish Water to complete the proposed upgrade works to ensure compliance with the THMs parametric value in the Fintown PWS as soon as possible, but no later than 11th February 2017.

Irish Water’s most recent progress report dated 28th March 2018 states the Fintown WTP is no longer in use and has been decommissioned and replaced by Glenties-Ardara PWS. A contractor has been appointed to address the THMs failure in the Glenties-Ardara PWS by upgrading its water treatment plant by the end of 2018. The EPA noted during the audit that the measures proposed to address the THMs failures in the area served by the Fintown PWS goes beyond the Direction deadline of 11th February 2017. Irish Water’s monitoring reports show THMs continue to fail to comply with the parametric value of 100 µg/l as set out in the *European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014), as amended*.

4. RECOMMENDATIONS

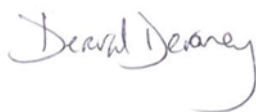
1. Irish Water shall carry out the proposed upgrade works at the Glenties-Ardara water treatment plant as soon as practicable to ensure its final water is compliant with the THMs parametric value of 100 µg/l as set out in the *European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014), as amended*. Irish Water shall provide quarterly updates to the Agency and notify it when works are complete.
2. Irish Water shall continue to carry out monitoring for THMs in the Glenties-Ardara Public Water Supply including the Fintown area and once the upgrade works are complete, verify the effectiveness of the actions undertaken and submit the results to the EPA.
3. Irish Water shall investigate the performance, capacity needs of the extended 13 km mains network from Glenties-Ardara Water Treatment Plant to the Fintown area to ensure the water supply being served from this network is both safe (disinfection is adequate) and secure (water supply is maintained in the event of an incident, bursts in the network, scouring, etc.).

FOLLOW-UP ACTIONS REQUIRED BY IRISH WATER

During the audit, Irish Water representatives were advised of the audit findings and that there was a breach in meeting the legal requirements of the Regulation 10(4)(c) Direction issued by the EPA on 11th December 2014 and as a result further enforcement action would follow. This report has been reviewed and approved by Ms Aoife Loughnane, Drinking Water Team Leader.

Please quote the File Reference Number in any future correspondence in relation to this Report.

Report prepared by:



Date:

Derval Devaney
Inspector

26th April 2018