



# Drinking Water Audit Report

<b>County:</b>	Mayo	<b>Date of Audit:</b>	9 <sup>th</sup> December 2014
<b>Plant(s) visited:</b>	Kilmaine PWS	<b>Date of issue of Audit Report:</b>	12 <sup>th</sup> December 2014
		<b>File Reference:</b>	DW2014/171
		<b>Auditors:</b>	Mr Darragh Page
<b>Audit Criteria:</b>	<ul style="list-style-type: none"> <li>• The <i>European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014)</i>.</li> <li>• The <i>EPA Handbook on the Implementation of the Regulations for Water Services Authorities for Public Water Supplies (ISBN: 978-1-84095-349-7)</i></li> <li>• The recommendations specified in the EPA Report on <i>The Provision and Quality of Drinking Water in Ireland</i>.</li> <li>• The recommendations in any previous audit reports.</li> </ul>		

## MAIN FINDINGS

- i. The remedial works to replace the existing sources of the Kilmaine PWS with the Lough Mask Regional PWS is almost complete and it is expected to be complete by January 2015.
- ii. Irish Water had failed to communicate with the EPA concerning this supply since May 2014 in spite of several requests for progress updates. Irish Water needs to review communications with the EPA and ensure that all requests for information are responded to in a timely manner.

## 1. INTRODUCTION

Under the *European Union (Drinking Water) Regulations 2014* 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 drinking water and in particular to assess progress in the implementation of the action programme submitted on 29<sup>th</sup> April 2013.

The Kilmaine PWS is served by two shallow wells/springs at Tobair Phadraig and Fountain Well which supply water to 960 persons. Treatment currently consists of chlorination only at both sources.

The opening meeting commenced at 12:30 pm in Kilmaine. The scope and purpose of the audit were 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.

Representing Irish Water: (\* indicates that person was also present for the closing meeting)

Ms. Anne Bonner – Compliance Liaison Specialist, Irish Water\*

Mr. Anthony Skeffington – Service Level Agreement Manager, Irish Water\*

Mr. Iarla Moran – Senior Engineer, Mayo County Council\*

Mr. Kieran Shally – Senior Executive Engineer, Mayo County Council\*

Mr. Martin Healy – Caretaker, Mayo County Council\*

Representing the Environmental Protection Agency:

Mr. Darragh Page – Inspector

## 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.*

1.	<b>Source Protection</b> <ul style="list-style-type: none"><li>a. Both existing sources are shallow wells/springs located in vulnerable locations. Short periods of elevated turbidity are a common feature of both sources with levels above 1.0 NTU recorded on an intermittent basis.</li><li>b. Regular monitoring for <i>Cryptosporidium</i> is undertaken at both sources. A <i>Cryptosporidium</i> rig permanently samples both sources and samples are analysed once the turbidity levels rise above 1.0 NTU. 15 samples have been analysed in the Fountain Hill source since September with no detections since the initial detection notified to the EPA in April 2014.</li><li>c. Both sources will be abandoned when the extension of the Lough Mask scheme to Kilmaine is complete.</li></ul>
2.	<b>Chlorination and Disinfection</b> <ul style="list-style-type: none"><li>a. The existing disinfection systems meet the minimum criteria as set out in EPA Advice Note No.3 – E. coli in Drinking Water. However, there is no facility to trend the results at the Kilmaine plant.</li><li>b. The chlorination system will be reviewed when the extension is complete. Mayo County Council stated that it was anticipated that when the Lough Mask source is fed into the supply there should be sufficient chlorine residual. However, a new reservoir is planned for construction in March/April 2015 to provide storage for the town which may require a chlorine booster as the residence time will be increased.</li><li>c. There will be a facility to temporarily boost chlorine inline in the event of insufficient chlorine residual leaving the plant/in the network.</li></ul>
3.	<b>Exceedances of the Parametric Values</b> <ul style="list-style-type: none"><li>a. The detection of <i>Cryptosporidium</i> oocysts was notified to the EPA in April 2014.</li><li>b. Irish Water proposed to address this by decommissioning the existing sources and supplying water via the extension of the Lough Mask scheme from Ballinrobe to Kilmaine.</li><li>c. At the time of the audit Irish Water stated that 8.1 km of the new main had been laid with approximately 500 m remaining. Work was observed to be ongoing at the time of the audit. Irish Water stated that the works would be complete by the end of December 2014 and the supply would be switched over in January 2015. At this time the existing sources at Fountain Hill and Tobair Phadraig would be decommissioned.</li></ul>

### 3. AUDITORS COMMENTS

The replacement of the Fountain Hill and Tobair Phadraig sources of the Kilmaine PWS have progressed in line with the timeframes as outlined to the EPA in April 2014. However, in spite of several requests for updates on progress Irish Water has not communicated with the EPA regarding this supply since 21<sup>st</sup> May 2014. Irish Water needs to improve communications with the EPA and respond to requests for information in a timely manner.

### 4. RECOMMENDATIONS

#### Source Protection

1. Irish Water should review existing open files in Mayo and other regions and ensure that the EPA requests for information are responded to in a timely manner.
2. Irish Water should notify the EPA when the Fountain Hill and Tobair Phadraig sources are decommissioned and should submit the results of monitoring to verify the effectiveness of the replacement source (i.e. chlorine residuals at the extremities of the network).

### FOLLOW-UP ACTIONS REQUIRED BY IRISH WATER

During the audit the Irish Water representatives were advised of the audit findings and that action must be taken as a priority by the Irish Water to address the issues raised. This report has been reviewed and approved by Ms Yvonne Doris, Drinking Water Team Leader.

Irish Water is recommended to put such measures in place as are necessary to implement the recommendations listed in this report. The actions by Irish Water to address the recommendations taken will be verified by the Agency during any future audits.

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.

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

**Report prepared by:**



**Date:**

12<sup>th</sup> December 2014

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Darragh Page  
Inspector