



# Drinking Water Audit Report

<b>County:</b>	Clare	<b>Date of Audit:</b>	28/10/2015
<b>Plant(s) visited:</b>	Mountshannon, Water Treatment Plant.	<b>Date of issue of Audit Report:</b>	27/11/2015
		<b>File Reference:</b>	DW2015/190
		<b>Auditors:</b>	Mr Niall Dunne
<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 <i>EPA Drinking Water Report</i>.</li> <li>• The recommendations in any previous audit reports.</li> </ul>		

## MAIN FINDINGS

- i. **There is no chlorine residual alarm on the Mountshannon water supply. The EPA issued a direction on the 19/11/2015 to Irish Water for the installation, by the 01/02/2016, of an operational chlorine residual alarm.**
- ii. **Clare County Council estimates that there are three premises on this supply that receive drinking water without the adequate chlorine contact time of 15 mg.min/l, as recommended by the WHO. Irish Water must as a priority put remedial measures in place to ensure that all consumers receive adequately disinfected water.**

## 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 disinfection system on this supply.

The source for the Mountshannon supply is a borehole. The supply serves approximately 300 consumers. Treatment consists of chlorination. Clare County Council (CCC) estimate that approximately three premises located prior to the Mountshannon reservoir receive inadequately disinfected water.

Photographs taken by Niall Dunne during the audit are attached to this report and are referred to in the text where relevant.

The opening meeting commenced at 13:50 at the Mountshannon water treatment plant. 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)

Deirdre O'Loughlin; Compliance Specialist - Irish Water.

Duane O'Brien; Regional Operations - Irish Water.

Rory O'Dea; Senior E.H.O - HSE.

Anthony Mc Namara; Senior Executive Engineer - Clare County Council (CCC).

Michael Pearl; Caretaker – Clare County Council.

Representing the Environmental Protection Agency:

Niall Dunne: Inspector – EPA.

## 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. Chlorination and Disinfection

- a. Duty standby chlorine dosing pumps were in place at the Mountshannon water treatment plant, (see photograph 1).
- b. In subsequent correspondence, 13/11/2015, Irish Water confirmed auto switchover between the duty and standby pumps was in place.
- c. Clare County Council estimate that approximately three premises located prior to the reservoir receive inadequately disinfected water.
- d. The chlorine residual monitor is located at the Mountshannon waste water treatment plant.

## 3. AUDITORS COMMENTS

A direction was issued to Irish Water on the 19/11/2015 for the installation of a continuous chlorine residual alarm on the Mountshannon supply. The alarm is to be linked to a recording device to ensure any failure of the dosing system is immediately detected. The alarm is required to be installed by the 1<sup>st</sup> February 2016. The installation of the continuous chlorine residual alarm will be dealt with under the direction. There is no further recommendation regarding this issue within this audit report. Irish Water must ensure that all chlorine dosing points under their responsibility are in compliance with *EPA Advice Note No. 3: E.coli in Drinking Water*.

Clare County Council estimates that approximately three premises receive water without the chlorine time of 15 mg.min/l, as recommended by the World Health Organisation. Irish Water as priority must put remedial measures in place to ensure that all consumers on this supply receive adequately disinfected water.

The chlorine residual monitor is located at the Mountshannon wastewater treatment plant. Irish Water should relocate the chlorine residual monitor so as to eliminate any possibility of cross contamination of the water supply.

#### 4. RECOMMENDATIONS

1. Irish Water is requested to submit proposals, with timeframes, to ensure that all consumers on this supply receive adequately disinfected water, which has the appropriate contact time of 15 mg.min/l, as recommended by the World Health Organisation.
2. Irish Water should relocate the chlorine monitor so as to eliminate the risk of cross contamination from waste water.
3. Irish Water is requested to submit a minimum of three bacteriological samples taken before the reservoir, prior to the disinfection contact time being achieved.

#### FOLLOW-UP ACTIONS REQUIRED BY IRISH WATER

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. This report has been reviewed and approved by Ms Yvonne Doris, Drinking Water Team Leader.

Irish Water should submit a report to the Agency within one month of the date of this audit report detailing how it has dealt with the recommendations above. The report should include details on the action taken and planned to address the various recommendations, including timeframe for commencement and completion of any planned work.

A direction has issued by the Agency under a separate cover legally requiring specific recommendations to be implemented by Irish Water.

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 DW2015/190 in any future correspondence in relation to this Report.

**Report prepared by:**



**Date:**

27/11/2015

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Inspector

**Photograph 1: Duty and standby chlorine dosing pumps at the Mountshannon water treatment plant. The chlorine residual monitor is located after the Mountshannon reservoir.**

