



# Drinking Water Audit Report

<b>County:</b>	Wexford	<b>Date of Audit:</b>	8 <sup>th</sup> October 2014
<b>Plant(s) visited:</b>	Oldcourt, Adamstown	<b>Date of issue of Audit Report:</b>	9 <sup>th</sup> October 2014
		<b>File Reference:</b>	DW2014/327
		<b>Auditors:</b>	Ms Yvonne Doris
<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>• <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></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 Oldcourt, Adamstown public water supply is served from a borehole abstraction which is not treated or disinfected. The supply is currently on a Boil Water Notice after the detection of coliforms in the supply on 16/9/14.**
- ii. **Provision of disinfection in this supply should be addressed by Irish Water. The supply should be adequately disinfected prior to entering the distribution network and the efficiency of the disinfection system should be verifiable.**
- iii. **Wellhead protection works to improve the security of the supply should be carried out without delay, in order to protect the health of consumers.**

## 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 in response to the notification by Wexford County Council dated 18<sup>th</sup> September 2014 of the failure to meet the Coliforms parametric value (as specified in Table C of Part 1 of the Schedule of the Regulations) in the Oldcourt, Adamstown public water supply and the issue of a Boil Water Notice to consumers on the supply on 18/9/14. Where the text refers to the Water Service Authority this refers to Irish Water in accordance with Section 7 of the Water Services (No. 2) Act 2013.

The Oldcourt, Adamstown public water supply serves approximately 21 people (6 domestic houses) a volume of approximately 4 m<sup>3</sup>/day. 5 of the houses were built as local authority housing in the late 1960s or early 1970s. These properties have been subsequently either purchased by the occupier or a schedule of payments by the occupier to the local authority has resulted in the occupier having a vested interest in the property. The occupier of the property in which the borehole is located obtained a vested interest in the property about 15 years ago. Occupiers with a vested interest in their properties may not sell their properties without the prior permission of Wexford County Council. A sixth (private) dwelling was built within the past two years and is also served by the supply. The supply is served by a single borehole drilled in the late 1960s or early 1970s by Wexford County Council in the grounds of one of the (previously) local authority-owned (now occupier vested interest) properties. The borehole and pump have been maintained by Wexford County Council since the well was drilled. A new pump and pressure vessel was installed two years ago by Wexford County Council. The pumphouse roof is leaking and in need of repair. The electrical wiring in the pumphouse also needs to be replaced. Monitoring of the quality of the water supply by Wexford County Council commenced

in October 2013. Check samples (No. 2) taken on 16/9/14 had coliforms >200 per 100ml. A Boil Water Notice was placed on the supply on 18/9/14 and is still in place.

Irish Water dispute responsibility of the supply and did not attend the audit. Photographs taken by Yvonne Doris during the audit are attached to this report and are referred to in the text where relevant.

The opening meeting commenced at 14.00 at the Oldcourt pumphouse. 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 pumphouse. The audits observations and recommendations are listed in Section 2 and 4 of this report. The following were in attendance during the audit.

Representing Wexford County Council: (\* indicates that person was also present for the closing meeting)

Name – Job Title

Oliver Bennett, caretaker, Wexford County Council\*

Paul Delahunty, Quality Engineer, Wexford County Council\*

Representing the Environmental Protection Agency:

Name – Job Title

Yvonne Doris, Inspector

Irish Water was notified of the audit. Irish Water informed the EPA that it would not attend the audit.

## 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.*

<b>1.</b>	<p><b>Source Protection</b></p> <ul style="list-style-type: none"> <li>a. The borehole is drilled in the grounds of a property built by Wexford County Council in the late 1960s/early 1970s to serve this property and 4 other properties which were built as local authority houses. These 5 properties are now owned by the occupiers or the occupiers have a vested interest in the properties. A 6<sup>th</sup> private dwelling, built within the last two years is also served by the supply.</li> <li>b. The surrounding land slopes towards the wellhead and cattle graze uphill from the borehole. No setback distances are in place under the Good Agricultural Practices regulations.</li> <li>c. The top of the wellhead is below ground level, uncapped and covered with a concrete slab (unlocked). The wellhead is unsealed and vulnerable to the entry of surface water (see photograph 1).</li> </ul>
<b>2.</b>	<p><b>Treatment</b></p> <ul style="list-style-type: none"> <li>a. The Oldcourt, Adamstown public water supply receives no treatment. There is no disinfection of the water before it is supplied to consumers</li> </ul>
<b>3.</b>	<p><b>Exceedances of the Parametric Values</b></p> <ul style="list-style-type: none"> <li>a. Wexford County Council commenced compliance monitoring of this supply in October 2013.</li> <li>b. On 16<sup>th</sup> September 2014 two check samples had Coliform levels of &gt;200 per 100ml in both samples. Previous samples did not detect coliforms. A boil water notice to consumers of the supply was put in place on 18<sup>th</sup> September 2014 and is still in place. Investigations into the source of the contamination are as yet inconclusive.</li> <li>c. On 16<sup>th</sup> September 2014 two check samples had pH levels of 6.1 and 5.5. There is no pH adjustment on the supply.</li> </ul>

#### 4. Management and Control

- a. The pumphouse roof needs to be repaired or replaced and the electrical wiring needs to be replaced. Wexford County Council is seeking quotations these works and when completed, intend to install emergency disinfection (bundled sodium hypochlorite day tank and single chlorine pump with flow proportional dosing) by the end November 2014. As yet there is no long term plan for appropriate disinfection – duty and standby chlorination or UV with residual chlorine or UVT monitoring with appropriate alarms and dial out procedures.
- b. Wexford County Council intends to seek funding for emergency disinfection works from Irish Water. Otherwise Wexford County Council will fund the works. No funding mechanism is in place for the longterm improvement works to disinfection or wellhead protection.
- c. Wexford County Council is considering options to dose caustic soda to adjust the pH in the supply to bring it into compliance with the pH parametric standard. Wexford County Council intend to seek funding for pH adjustment from Irish Water.
- d. Irish Water dispute ownership and responsibility for the Oldcourt, Adamstown public water supply. Irish Water was notified of the audit but did not attend the audit. Wexford County Council have said that Irish Water will not provide funding for works required to bring this supply into compliance with the legal standards in the Drinking Water Regulations, 2014.
- e. Wexford County Council intends to sample the supply again when emergency disinfection is in place.

### 3. AUDITORS COMMENTS

The Oldcourt, Adamstown public water supplies serves 21 people. The supply is served by a borehole at risk from contamination from surface water. The raw water receives no treatment or disinfection prior to entering the distribution network. The supply is currently subject to a Boil Water Notice following detection of coliforms on 18<sup>th</sup> September 2014. Irish Water disputes the ownership and responsibility for this supply. The EPA has separately written to Irish Water in relation to their responsibility for these supplies. Wexford County Council state that Irish Water will not provide funding for the necessary works to bring the supply into compliance with the legal standards. Wellhead protection and upgrade works including disinfection of the supply is urgently required in order to protect the health of consumers.

### 4. RECOMMENDATIONS

#### Source Protection

1. The Water Services Authority should implement the requirements of the *European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2014 (SI No.31 of 2014)* to ensure, unless an alternative setback distance has been set as per Article 17 that:
  - i. Organic fertiliser or soiled water is not applied to land within 25 m of the abstraction point; and
  - ii. Farmyard manure held in a field prior to landspreading is not placed within 15 m of the abstraction point.
2. The Water Services Authority should examine the appropriateness of the setback distances in the *European Union (Good Agricultural Practice for the Protection of Waters) Regulations 2014 (SI No.31 of 2014)* for the source of the supply. The Water Services Authority should have regard to the EPA guidance on alternative setback distances.
3. The Water Services Authority should ensure that the wellhead is raised above ground level, the well casing is sealed and all borehole linings and seals are maintained to prevent the entry of surface water into the borehole.

#### Disinfection

4. The Water Services Authority should ensure that the disinfection system meets the appropriate criteria set out in *EPA Drinking Water Advice Note No. 3: E. coli in Drinking Water*.

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

During the audit the Water Services Authority representatives were advised of the audit findings and that action must be taken as a priority by the Water Services Authority to address the issues raised. This report has been reviewed and approved by Mr Darragh Page, Drinking Water Team Leader.

The Water Services Authority should submit a report to the Agency within one month of the date of this audit report detailing how it has dealt with the issues of concern identified during this audit. 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.

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:**

*Yvonne Doris*

**Date:**

9<sup>th</sup> October 2014

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Yvonne Doris

Inspector



Photograph 1: Oldcourt pumphouse in need of repairs



Photograph 2: Wellhead with concrete slab cover and potential entry of surface water to well



Photograph 3: Pressure vessel inside pumphouse and water from leaking roof on floor.