



# Drinking Water Audit Report

<b>County:</b>	Galway	<b>Date of Audit:</b>	16 October 2015
<b>Plant(s) visited:</b>	Moyola Park, Galway	<b>Date of issue of Audit Report:</b>	23 October 2015
		<b>File Reference:</b>	DW2015/33
		<b>Auditors:</b>	Ms Derval Devaney
<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 <i>EPA Drinking Water Report</i>.</li> <li>• The recommendations in the previous audit report issued 20 April 2015.</li> </ul>		

## MAIN FINDINGS

- i. **The source of contaminant and measures to be taken to prevent re-occurrence was not apparent.**
- ii. **Many of the issues raised in the last audit have not been addressed and have occurred again during this incident (e.g. communication of the incident, condition of the tanker, flushing to ground).**
- iii. **Many of the recommendations of the last audit report have not been implemented.**

## 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 a) complaints of odour in the water supply in Moyola Park, Galway City on Sunday 11<sup>th</sup> October 2015, b) a water restriction being placed on this supply area on 13<sup>th</sup> October 2015 by Irish Water (in consultation with the HSE) due to the risk of traces of kerosene in the supply and c) given that a similar incident occurred in this area in March 2015. Moyola Park is supplied from the Galway City Public Water Supply (Terryland Water Treatment Plant).

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

The opening meeting commenced at 11.45 am at Moyola Park. 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:

Anne Bonner, Water Compliance Liaison Specialist, Gerard Greally, O&M North West Region

Representing the Environmental Protection Agency:

Derval Devaney, 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. Incident:

*October 2015:* Irish Water explained during the audit that on Sunday morning 11th of October, the water supply feeding Moyola Park Estate was shut down for approximately 2 hours in order to repair a leak at the entrance to the estate. This resulted in the draining down of the line allowing a build-up of air within the water mains. When the water supply was switched back on, an air water mix was created in the system creating a scouring effect on the mains. This, IW state, may have dislodged a residue plug within the system from the previous incident and coupled with insufficient length of time flushing was not fully released out of the system before the normal service resumed to customers. IW also stated that there were 6 houses which were either not metered or did not have non-return valves put in place since the last incident. This action was to be carried out to prevent a re-occurrence of the incident in March.

The source of the oil residue which led to this incident was not apparent from discussions with Irish Water during the audit.

### 2. Action taken by Irish Water:

Irish water identified 8 hydrants within the estate which shall be flushed and sampled. A program of flushing and sampling from the hydrants is to take place over the next three weeks.

The location of one of the hydrants used for flushing was inspected during the audit and it was evident that water was being flushed to the same grassy location that was used in response to the incident last March. The flushed water that travelled over ground was entering a drain nearby but Irish Water was unclear if this drained to surface water or waste water (see Photographs 1 & 2). It was explained during the audit in March 2015 that flushing potentially contaminated water to grass and soil poses a risk of contaminating the surrounding water and soils which may lead to contaminated water leaching in through plastic mains pipe that is in present in Moyola Park. This matter was raised preciously in Recommendation 6 of March Audit Report. Concern was expressed that this practice continued to occur rather than containing contaminated flushed water or directing it to waste water for treatment.

A water tanker and water bowsers were put in place in the park on 13/10/15 to supply the residents with an alternative water supply. The supply log was reviewed during the audit and it did not contain all information that the EPA specifies to be recorded. The name of the water supply that was used to fill the tanker and the quality of that water was not logged. Irish Water had to contact Galway City Council during the audit to verify where the water was being sourced from (the Galway City Water Supply at the docks area). The tanker appeared unfit for purpose (external surfaces were rusty and dirty) for storage of a food source (see Photographs 3 & 4). Irish Water had received complaints regarding the appearance of the tanker used as an alternative supply during this incident. These matters were raised during the last audit.

Many of the same findings of the previous audit carried out in response to the presence of kerosene in this supply in March were repeated during this incident and it appears that the recommendations and advice provided was not taken on board by Irish Water.

### 3. Sampling Results:

Daily sampling results taken in Moyola Park and at other locations in the network from 11th October were reviewed and while some parameters monitored were above the limits of detection, PAH,

	<p>Benzene and Benzo (a) pyrene were below the limits of detection and therefore met the parametric values contained in the Drinking Water Regulations 2014. Irish Water stated that daily samples would continue to be taken, reviewed and discussed with the HSE and forwarded to the EPA.</p> <p><b>4. Irish Water’s Communication of Incident:</b></p> <p><i>EPA Notification:</i> The EPA was made aware of this incident by email from the residents of Moyola Park on Sunday 11<sup>th</sup> and Monday 12<sup>th</sup> October. The EPA was not informed of the incident by Irish Water using the ODWNS as per EPA Handbook procedure (despite telephone communication with Irish Water to do so on the morning of 12th October 2015). Many errors followed as Irish Water attempted to upload the notification using the ODWNS (e.g. Boil Water Notice instead of Water Restriction and notice referring to March 2015 rather than October 2015). A notification was finally uploaded Thursday 15th October (which continued to display errors that were notified to Irish Water upon receipt). The delay in notifying the EPA using the correct procedure was raised in the last EPA audit report (Observation 4 page 5) and was to be addressed under Recommendation 1 of that audit report.</p> <p><i>Water Restriction Notice to Residents:</i> The HSE advised Irish Water at 15:55 Monday 12<sup>th</sup> October to issue a precautionary “Do Not Use” notice however residents were not advised of this until lunch-time Tuesday 13<sup>th</sup>. In addition, Irish Water did not issue a press release to the local radio station, Galway Bay FM, as per its Communication Code of Practice (CoP) informing the public of the water restriction until the station contacted Irish Water requesting information which it had obtained from the residents.</p> <p><i>Irish Water’s Communication Code of Practice:</i> The CoP states that in the event of an alternative water supply arrangement, Irish Water will use a range of communication channels to “highlight the anticipated duration of the alternative supply” and “provide regular updates on progress to rectify the issue”. This information did not appear to be contained in the notices issued to residents. The residents had requested this information from Irish Water in emails following the imposition of the water restriction but a response to its customers did not appear to be forthcoming. The residents also expressed their confusion over the instructions contained in the notices on when not use water for bathing and washing clothes. Clarity on this matter, in a response from Irish Water to its customers, did not appear to be provided. The CoP also states that regular updates will be provided through social media, customer emails and local broadcasts and telephone helplines but residents have expressed that this was not the case (e.g. residents stated that emails were not responded to and difficulties were experienced gaining access to Irish Water’s helpline).</p> <p><i>Irish Waters follow-up with Galway City Council on last incident:</i> Irish Water stated during the audit that it only became aware that there were 6 houses that did not have non-return valves or meters fitted during the course of this recent incident. This was an action to be put in place to ensure the incident of last March did not re-occur.</p> <p><b>5. Outstanding Matters - Previous incident and EPA Audit Report:</b></p> <p><i>March 2015:</i> Despite reminders, many of the recommendations in EPA’s Audit Report issued 20 April 2015 regarding the kerosene incident which occurred in March remain outstanding. Irish Water did not have an update during the audit on the status of the remediation at the source of the last incident (Recommendation 1), it had not issued a summary report to the residents of the incident (Recommendation 2) and had not submitted a report to the EPA on lessons learned from this incident to ensure it would not re-occur in the future (Recommendation 7). Irish Water stated it would obtain an update from Galway City Council on the remediation works and is in the process of completing the reports on the incidents for the residents and the EPA.</p>
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### 3. AUDITORS COMMENTS

The shortcomings of Irish Water in responding to the incident in March, which were identified by the EPA as items to be addressed, were repeated during this incident. It is evident that lessons have not been learned from the previous incident and many of the recommendations raised in the last audit report have not been closed out.

The EPA requests that Irish Water review its handling of this recent and the previous incident and addresses the recommendations raised by the EPA in addition to the complaint made by the Moyola Park Residents Association to Irish Water on 20<sup>th</sup> October 2015. Irish Water should take the necessary steps to ensure that a) this incident does not re-occur and b) incident procedures are in place on a national basis to ensure that similar shortfalls are not repeated.

The recommendations below have incorporated those which are outstanding from the previous audit report, therefore the EPA requires one report from Irish Water which addresses the recommendations that are set out below.

#### **4. RECOMMENDATIONS**

1. Irish Water shall keep residents of Moyola Park updated:
  - a) in accordance with its Communications Code of Practice. Communicating with the residents was raised in the last audit report (Recommendation 1). The matters raised in the complaint from Moyola Park residents dated 20 October 2015 should also be responded to and addressed by Irish Water.
  - b) and close out Recommendation 2 of the last audit report by providing a summary report of the incident to consumers that were affected by the water restriction. This report should incorporate both incidents and include the cause of the incidents, what is being done to rectify the matter with timelines, action residents may need to take, how this can be prevented in future and who consumers should contact if they have further concerns.

Irish Water is to confirm to the EPA that the above has been completed or provide a timeline for completion of the above action.

2. Irish Water shall keep the EPA promptly informed on how it is to address:
  - a) the October incident, by providing details on the source and cause of the incident, actions to be taken to rectify the matter (including timeframes) and prevent it from re-occurring, sampling results, and any further advice issued by the HSE;
  - b) the March incident: as per Recommendation 6 of the last audit report which remains outstanding regarding progress on remediation of contaminated soils/water at [REDACTED] Moyola Park and that which possibly exists in the wider park area due to flushing of hydrants to grassy ground and drains and how it is to address any residual contamination that may remain in the domestic water systems to prevent risk of re-contamination of the water supply (including addressing the 6 houses that do not have meters/non-return valves).
  - c) the mains pipe bursting in Moyola Park –investigate the need for replacement of the pipe if it is not fit for purpose and causes outages in water supply on a frequent basis.
  - d) Recommendation 3 of the last EPA audit report to ensure that notifications and incidents are communicated by Irish Water using the appropriate channels as per the EPA procedures (i.e. promptly using the ODWNS rather than delayed communication and using an individual inspector's email addresses).
  - e) Recommendation 7 of the last EPA audit report which is outstanding regarding the submission of a report on the lessons learned from the March incident (i.e. how this incident contaminated the water supply and how it is to prevent similar incidents re-occurring in future).

The report submitted should incorporate lessons learned from both incidents so inadequacies in approach and response to incidents are not repeated again.

- f) Informing consumers promptly when the HSE advises that a Water Restriction is to put in place to protect the public's health. Such information should be relayed to consumers promptly once advice is issued by the HSE to Irish Water and in accordance with Irish Waters Communication CoP.
- g) The provision of appropriate water storage facilities (e.g. water tankers) which are fit for purpose and meet the needs of the customer.

**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 Mr Darragh Page, Manager.

Irish Water should submit a report to the Agency **by 23<sup>rd</sup> November 2015** 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:**



**Date:**

23/10/2015

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Inspector





**Photo 1** Grassy area in Myola Park where hydrant drains flushed water to. It was unclear if flushed water eventually drains to a surface water or waste water outlet.



**Photo 2** Grassy area in Moyola park where hydrant drains flushed water to.



**Photo 3** Rustytanker used to supply alternative water in Moyola Park



**Photo 3 Tanker supplying alternative water in Moyola Park**