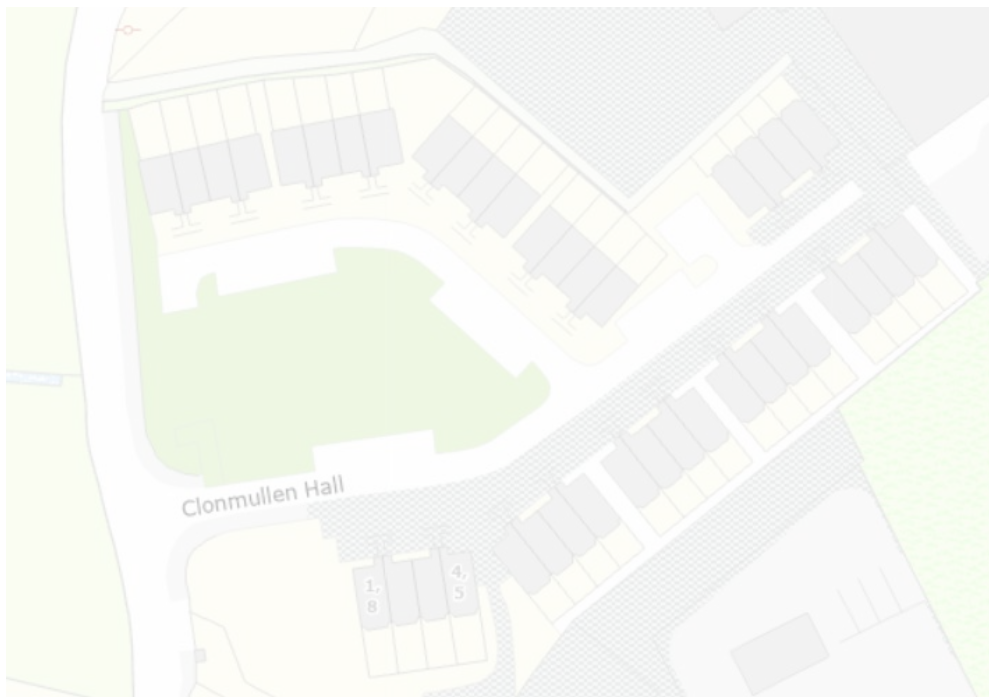


Water Audit Report

Clonmullen Hall, Edenderry Co. Offaly



Client:	Offaly County Council
Site Contact:	Celine Greaney
Project:	Water Audit Report Clonmullen Hall, Edenderry, Co. Offaly.
Technician:	James Curran & Kevin Hogan
Start/Finish of Survey	August 2025

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1 Water Consumption Analysis

SES Water Management were requested by the Offaly County Council to carry out a water audit of their site at Clonmullen Hall, Edenderry, Co. Offaly.

The survey work began by reviewing the location of the main bulk meter to establish the consumption of the site. There is an old Elster mechanical meter installed at the estate entrance. A logger was installed to record usage however no data received following download of logger.

We can confirm the meter reading on the Elster meter did not change over the duration of the works indicating a faulty meter. Therefore, we could not confirm the usage for the site.



Figure 1 : Elster Main Meter at Entrance of Estate

2 Leak Detection Survey

Following the review of the main meter a full comprehensive leak detection survey consisting of acoustic surveying was completed of the entire water main. A full review including checking all fittings and domestic connections was completed. This survey aided in identifying the location of the water mains in the estate.

Following leak detection survey work, we identified 1No. leak within the site as detailed below:

Leak 1: Customer Side Leak at:

5b Clonmullen Hall, Edenderry, Co. Offaly R45VH31

MSN: H15AU023832

Leak Rate: 0.6 l/min.

- Continuous usage identified at this meter, Stage 2 customer side leak detection required to pinpoint leak location and access to property.
- Access to home to be arranged for the follow up Stage 2 leak investigation.
- Tracer gas leak detection required on next visit.



3 Fire Hydrant Survey

3.1 Key Aspects of Fire Hydrant Specification

SURFACE:

Hydrants should be in the footpath or grass margin adjoining the roadway. Where it is in the grass, the periphery of the box should be concreted. The surface box and concrete surround should be kept over the level of the adjoining surface to prevent polluted water from entering the hydrant pit.

FRAME:

Hydrant chambers should have a cast iron surface box. The surface box should be bedded in mortar on the chamber walls, and if the hydrants are located other than on a footway or roadway, they should be surrounded by 150mm concrete of 100mm in depth.

COVER:

The hydrant cover should provide a 375mm x 225mm clear opening and should be placed centrally over the hydrant to permit freedom of affixing standpipe and valve key.

PIT:

The hydrant pit / chamber should provide not less than 75mm clearance around the hydrant body. Hydrant pits should be constructed to be self-draining. The pit should be clean and free of all debris.

OUTLET DEPTH:

The depth of the hydrant outlet should not exceed 350mm below finished ground level, with the top of the spindle being 75mm minimum to 225mm maximum below finished surface to footpath.

MARKER:

A hydrant indicator plate should be fitted on a wall or marker post at 450mm over ground level. They should show the diameter of the water main and the distance in metres of the hydrant from the marker.

TESTING:

Fire hydrants should be tested on an annual basis. The Fire Hydrant condition should be assessed to ensure it meets the required criteria. The flow and pressure should be recorded and reported in writing. Calibration certificates must be available for all test Equipment used.

3.2 Fire Hydrant Condition Survey

There are 4 Fire Hydrants located within the outlined estate. The Hydrant was reviewed to assess that they meet the standards in accordance with the BS5360 / BS9990.

Appendix A provides full details of the Fire Hydrant testing which was completed and recorded.

The items below are the main findings of the fire hydrant condition report.

- All Hydrants are accessible and have the spindle in place, except for FH1 which is missing a spindle for operation purposes.
- All Hydrants are LRT connections.
- All Hydrants have marker plates in place to identify locations/details. The vegetation for FH1 should be cutback to expose the marker plate location.
- All Hydrants are within the recommended depth, except for FH1 however all are easily accessible.
- The covers and frames for all hydrants are in good condition however the chambers to FH1 and FH2 require cleanouts as the hydrant fitting is buried with only the outlet exposed.
- All Hydrants covers are missing Canary yellow paint on chamber covers.

3.3 Fire Hydrant Flow & Pressure Testing

Hydrant testing was carried out on all Hydrants and the results are documented in the table below. The test includes measuring the pressure at the hydrant before and during the flow test. A digital hydrant flow meter is connected to the hydrant, the hydrant is then opened fully, and the average maximum sustainable flow rate is recorded.

FH No.	Flow Rate L/Min	Static Pressure (bar)
FH1	Can't flow test as missing spindle and too deep	
FH2	297	0.5
FH3	290	0.5
FH4	283	0.5

Table 1: Fire Hydrant Flow & Pressure Test Results

Note: Fire Hydrant FH1 can't be flow test as its missing a spindle for operation and it's too deep to get standpipe.

4 Valve Condition Assessment

4.1 Sluice Valves and Air Valves

There are **7** Sluice Valves located in the estate.

Valves:

- All Sluice Valves are accessible and have spindles in place.
- All Valves exceeds the recommended depth, except for SV4, however all are accessible with a long valve key.
- All Valves have marker posts/plates to identify the locations/details, except for SV1, SV5, & SV7.
- All valves covers and frames are in good condition. The chambers for SV3 to SV6 are partly filled with debris and require clean outs for future access.

5 House Connections Condition Survey

A total of 80 No. of property connections were identified during the house connection survey. All properties have boundary boxes with meters in place.

- All Boundary Boxes were surveyed/sounded for leaks during the survey.
- Following the house connection survey, we identified 1No. Customer Side Leak within the site as detailed in section 2.
- The concrete plinths for the boundary boxes to apartments K3, K4 & J1, J2 are sinking in place creating a trip hazard which should be rectified.



Apartment K3 & K4

Apartment J1 & J2

6 Summary and Recommendation

Meter

The survey work began by reviewing the location of the main bulk meter to establish the consumption of the site. There is an old Elster mechanical meter installed at the estate entrance. A logger was installed to record usage however no data received following download of logger.

We can confirm the meter reading on the Elster meter did not change over the duration of the works indicting a faulty meter. Therefore, we could not confirm the usage for the site.

Leak Detection

Following leak detection survey work, we identified 1No. Customer Side Leak within the site as detailed in section 2.

Recommended Remedial Works

- Install an outlet extension and spindle for Fire Hydrant FH1 to allow access for future operations and the vegetation should be cut back to expose the marker plate.
- Maintenance should be carried out for some of the Valves and Hydrants chambers as they are in poor condition and full of debris.
 - The chambers to FH1 and FH2 require cleanouts as the hydrant fitting is buried with only the outlet exposed.
 - The chambers for SV3 to SV6 are partly filled with debris and require clean outs for future access.
- Fire Hydrants FH1 to FH4 requires canary yellow paint on the chamber covers.
- Recommended to install an extension spindle for Sluice Valves exceeding the depth of 700mm for future access.
- Install marker plates for Sluice Valves SV1, SV5 & SV7 to identify the location/details.
- The concrete plinths for the boundary boxes to apartments K3, K4 & J1, J2 are sinking in place creating a trip hazard which should be rectified.

7 Site Layout

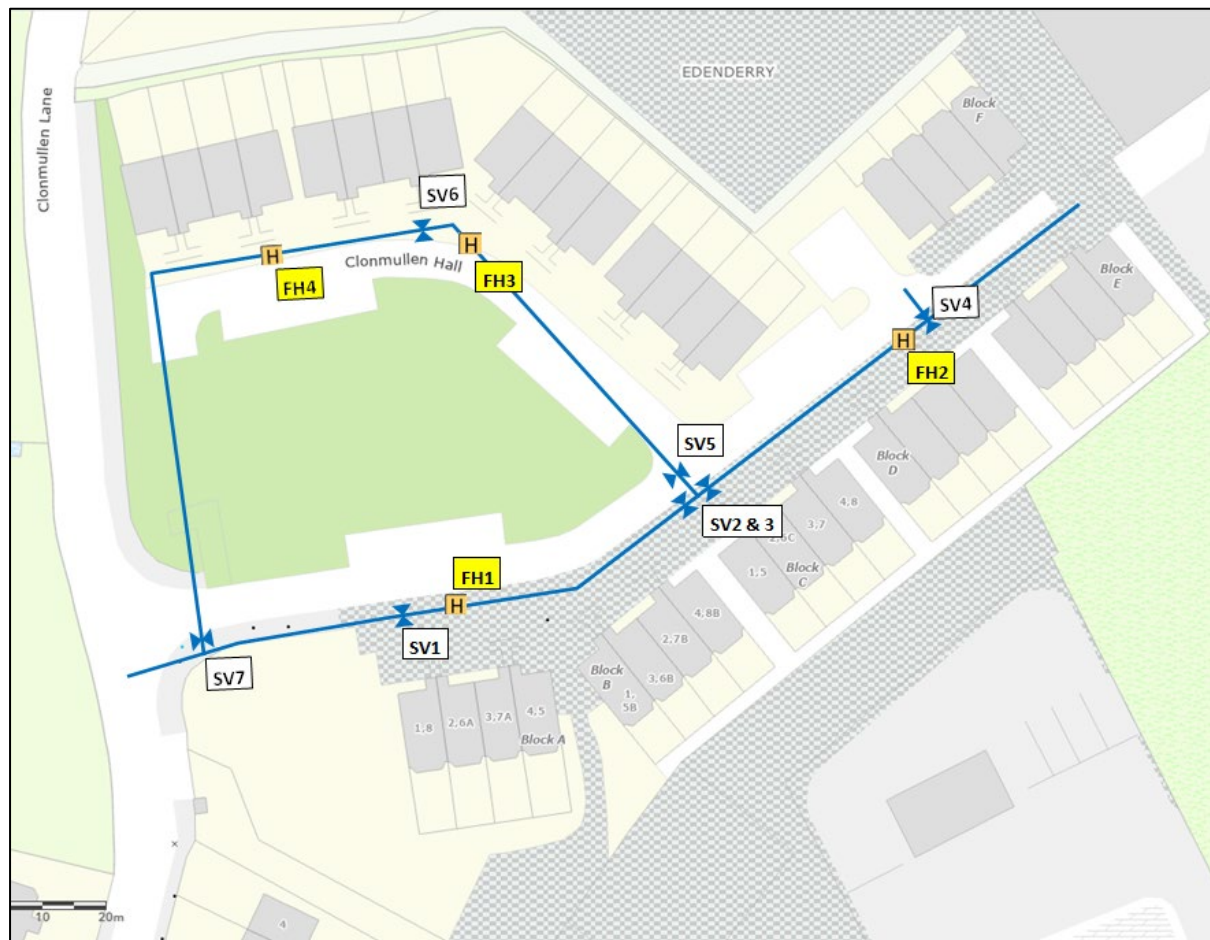


Figure 2: site Layout with water main network

8 Appendices

Appendix A – Condition Assessments and Mapping

**SES WATER
MANAGEMENT**

Company:	Offally County Council	Contact:	Celine Greaney
Location:	Clonmullen Hall, Edenderry Co Offally	Date:	11/08/2025
Technician:	Garry Corcoran	Day:	Monday
Coordinates:	53.34665, -7.04343	Time:	1:00:00 PM

Condition Assessment										
No.	Location	Surface	Cover / Frame	Pit	Marker/ Plate	Type	Spindle	Canary Yellow	Depth (mm)	Comments
FH001	Footpath	Concrete	Good	Fair	Yes	LRT	Missing	No	770mm	marker post behind the vegetation

Condition Images:

Coordinates

53.345264, -7.04634





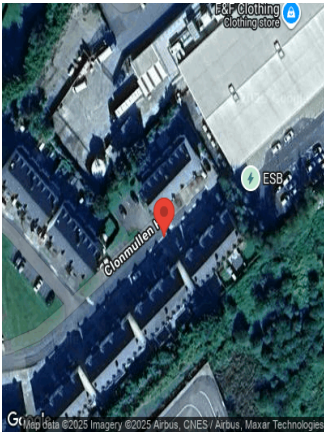
Condition Assessment										
No.	Location	Surface	Cover / Frame	Pit	Marker/ Plate	Type	Spindle	Canary Yellow	Depth (mm)	Comments
FH002	Footpath	Concrete	Good	Poor	Yes	LRT	Good	No	250mm	pit full of debris

Condition Images:

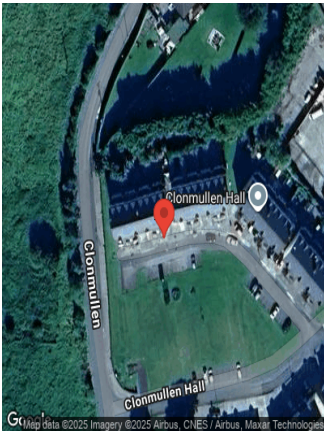
Coordinates

53.345706, -7.04519





Condition Assessment										
No.	Location	Surface	Cover / Frame	Pit	Marker/ Plate	Type	Spindle	Canary Yellow	Depth (mm)	Comments
FH003	Footpath	Concrete	Good	Fair	Yes	LRT	Good	No	220mm	
Condition Images: Coordinates 53.345765, -7.04617										
										

Condition Assessment										
No.	Location	Surface	Cover / Frame	Pit	Marker/ Plate	Type	Spindle	Canary Yellow	Depth (mm)	Comments
FH004	Footpath	Concrete	Good	Poor	Yes	LRT	Good	No	290mm	
Condition Images: Coordinates 53.345784, -7.04676										
										

Condition Assessment										
No.	Location	Surface	Cover / Frame Condition	Pit	Marker / Plate	Spindle	Open / Closed	Operating	Depth (mm)	Comments
SV001	Footpath	Concrete	Good	Good	No	Good	Open	Yes	1300mm	
Condition Images: Coordinates 53.345235, -7.04643										
										

