

**Comhairle Chontae Dhún na nGall**  
**Donegal County Council**  
**Fire Department**



**Procedure for Fire Hydrant Flow Test & Reporting**

### 1. Introduction

1.1. This note outlines the testing procedure of private fire hydrants and reporting of results. Hydrant flow tests are to be undertaken by competent persons with technical standards/best practice documents adhered to where applicable. Where private hydrants are supplied from mains, arrangements should be made with the water utility supplier before tests are carried out. Liability for damage caused to persons or property arising out of, or in connection with, any test rests with the persons responsible for the site/premises and their appointed contractors therefore suitable insurance arrangements should be in place prior to any testing.

### 2. Procedure for Flow Test

- 2.1. A 7-day log should be completed on the watermain to determine peak weekly demand period.
- 2.2. Hydrant flow test should then be undertaken over a two-hour window during peak weekly demand period.
- 2.3. Minimum of 2 No. hydrants should be tested simultaneously to simulate fire service operations.
- 2.4. The hydrants should be tested at 15-minute intervals over the two-hour test window, by opening the hydrants simultaneously for 60 seconds at each 15-minute interval and flow rates recorded at the beginning and end of the 60 second period along with recording of both static and dynamic pressure.

### 3. Presentation of Results

- 3.1. A formal report should be compiled for the fire hydrant flow test and should include the following.
  - a) Scope of works including site location, type/size of watermain tested and hydrant locations.
  - b) Detail of test procedure and equipment utilised during test.
  - c) Results of 7-day log on watermain.
  - d) Survey of fire hydrants including location, type & depth of hydrant, markings and chamber condition.
  - e) Tabulated results of fire hydrant testing. See example of results in Table 1 & Table 2 below with generic figures included for illustrative purposes only.

Hydrant Ref.	Time	Static Pressure (Bar)	Dynamic Pressure (Bar)	Flow Rate Start (L/min)	Flow Rate End (L/min)
				60 Second Flow Interval	
Hyd. 1	13:00	6.5	0.5	1600	1550
Hyd. 1	13:15	6.5	0.4	1550	1500
Hyd. 1	13:30	6.4	0.5	1550	1510
Hyd. 1	13:45	6.3	0.5	1600	1520
Hyd. 1	14:00	6.5	0.4	1570	1530
Hyd. 1	14:15	6.4	0.4	1560	1500
Hyd. 1	14:30	6.3	0.4	1590	1570
Hyd. 1	14:45	6.5	0.5	1600	1550
Hyd. 1	15:00	6.4	0.5	1560	1520

**Table 1: Example of Hydrant 1 Flow Test Results**

Hydrant Ref.	Time	Static Pressure (Bar)	Dynamic Pressure (Bar)	Flow Rate Start (L/min)	Flow Rate End (L/min)
				60 Second Flow Interval	
Hyd. 2	13:00	6.5	0.5	1580	1550
Hyd. 2	13:15	6.5	0.4	1540	1500
Hyd. 2	13:30	6.4	0.5	1540	1530
Hyd. 2	13:45	6.3	0.5	1560	1530
Hyd. 2	14:00	6.5	0.4	1540	1520
Hyd. 2	14:15	6.4	0.4	1530	1510
Hyd. 2	14:30	6.3	0.4	1550	1520
Hyd. 2	14:45	6.5	0.5	1550	1520
Hyd. 2	15:00	6.4	0.5	1530	1510

**Table 2: Example of Hydrant 2 Flow Test Results**