







#### Overview

July 2025 was warm with variable rainfall amounts across the country. Rainfall was above average in parts of the east and west, and below average in the south and parts of the midlands. 42% of the monthly average river flows were above the normal long-term range with increases in flow mainly observed in the east and along the western seaboard. Lake levels increased at 55% of lake sites monitored, while groundwater levels decreased at 70% of stations monitored when compared to June. 32% of groundwater levels were below the normal long-term range. Out of the three spring flows monitored 2 were in the normal range and 1 was below normal.

#### Rainfall

Monthly rainfall values were variable across the country. Rainfall was unevenly distributed across the country with parts of the east and west seeing well above average rainfall, while areas in the south and north midlands saw well below average rainfall. This was due to a combination of weather fronts stalling and the convective nature of the rainfall at times. Percentage of 1991-2020 Long-Term Average (LTA) rainfall values ranged from 49% (the month's lowest monthly rainfall total of 40.7 mm) at Ballyhaise, Co. Cavan to 161% (monthly rainfall total of 95.7 mm) at Casement Aerodrome, Co. Dublin. Monthly rainfall totals were as much as 148.3 mm (144% of its LTA) at Athenry, Co. Galway. The highest daily rainfall total was 55.4 mm at Dunsany, Co. Meath on Monday 21st (its highest daily fall for July on record (length 61 years) and 79% of its monthly LTA). The number of rain days ranged from 11 days at Roches Point, Co. Cork to 25 days at Belmullet, Co. Mayo. The number of wet days ranged from 7 days at a few stations to 18 days at Valentia Observatory, Co Kerry. The number of very wet days ranged from zero days at Moore Park, Co. Cork to 6 days at Athenry, Co. Galway. Along with Dunsany, Casement Aerodrome, Co. Dublin also had its wettest July day on record on Monday 21st with 50.9 mm (length 61 years). Gurteen, Co. Tipperary had its wettest July day on record on Tuesday 15th with 28.3 mm (length 17 years). Three stations, Oak Park, Co. Carlow, Johnstown Castle, Co. Wexford and Roches Point, Co. Cork, had dry spells between June 27<sup>th</sup> and July 14<sup>th</sup> lasting between 15 and 17 days.

#### River Flows

The average river flows for July decreased at 59% of the river monitoring stations compared to average flows observed in June 2025. Analysis of the monthly average flows at 138 river monitoring sites, identified, 21 (15%) as 'particularly high', 37 (27%) as 'above normal', 55 (40%) as 'normal', 22 (16%) as 'below normal' and 3 (2%) as 'particularly low'. In the south, southeast and midlands flows generally remained in the normal or below the normal long-term range (see Figure 6).











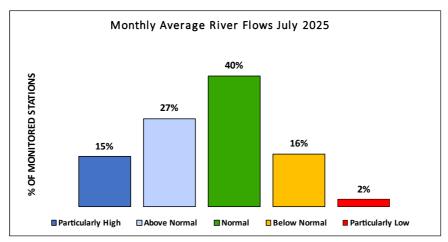


Figure 1: Percentage distribution of river flow monitoring sites within each of the percentile flow categories for July 2025.

## Lake and Turlough Levels

Average water levels for July increased at 55% of lake sites monitored compared to June 2025. Monthly average levels at 31 lakes and 3 turloughs were classified as being 'particularly high' at 4 (12%), 'above normal' at 13 (38%), 'normal' at 5 (15%), 'below normal' at 7 (20%) and 'particularly low' at 5 (15%).

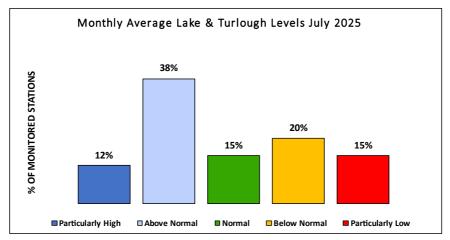


Figure 2: Percentage distribution of lake and turlough level monitoring sites within each of the percentile flow categories for July 2025

### Groundwater Levels and Spring Flows

Groundwater levels for July were lower at 70% of the monitoring wells compared to average levels observed in June 2025. Groundwater levels at 37 monitoring wells were classified as being 'particularly high' at 8 wells (22%), 'above normal' at 7 wells (19%), 'normal' at 10 wells (27%), 'below normal' at 8 wells (22%), and 'particularly low' at 4 wells (10%).









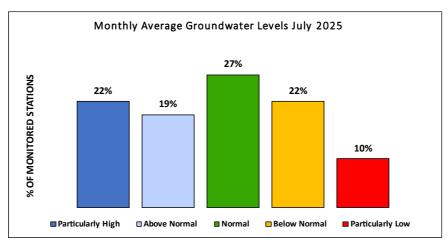


Figure 3: Percentage distribution of groundwater level sites within each of the percentile flow categories for July 2025.

Spring outflows were also monitored at 3 EPA monitoring sites for July. The outflows from these springs were compared to previously recorded July flows and were classified as 'normal' at 2 locations, and 'below normal' at 1 spring sites.









#### Rainfall

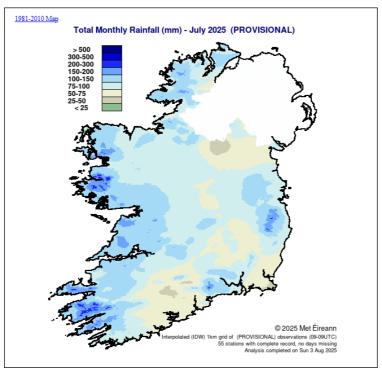


Figure 4: Rainfall map for Ireland July 2025 (Source: Met Eireann.ie).

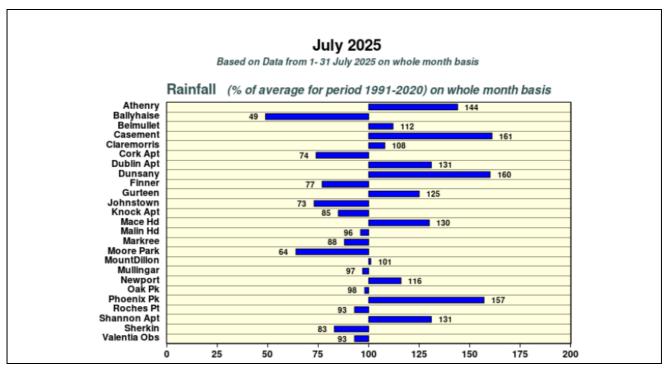


Figure 5: Summary of rainfall at synoptic stations for July 2025, figures indicate the percentage difference from the Long-Term Average rainfall for this month (Source: Met Eireann.ie).











#### **River Flows**

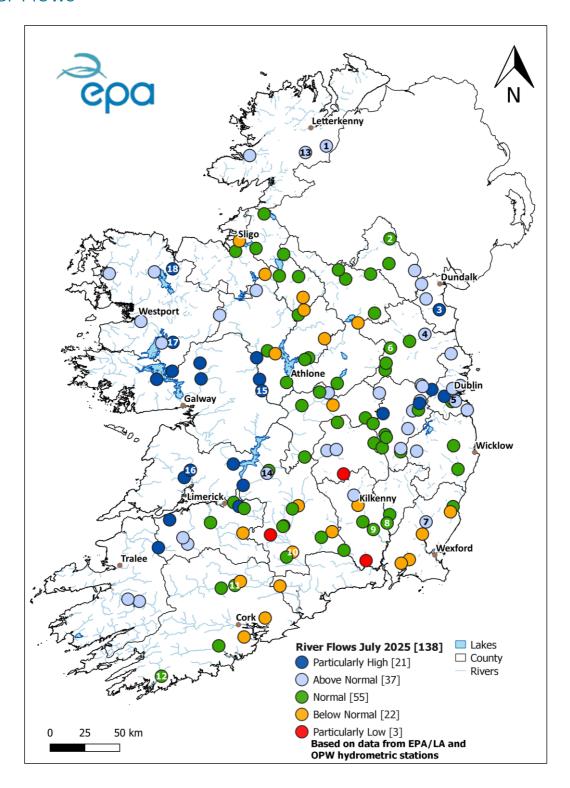


Figure 6: Monthly average river flows for July 2025 relative to historic monthly average flows expressed as percentile of the long-term values of monthly flow. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW).











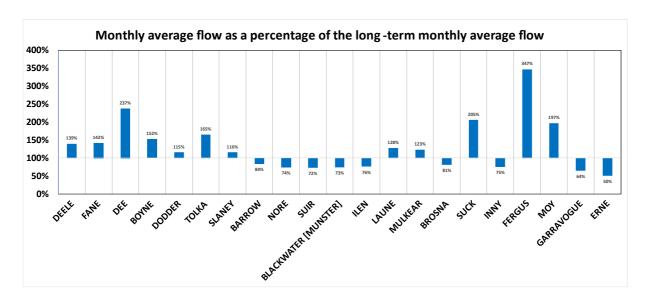
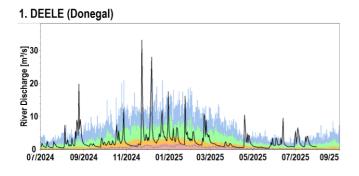
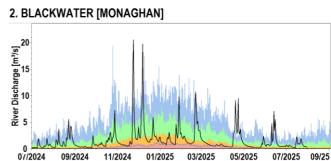
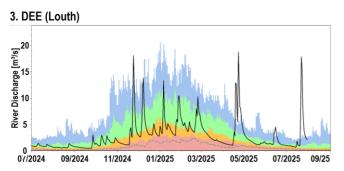


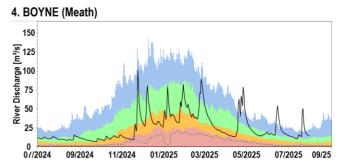
Figure 7: July 2025 average flows as a percentage of the long-term monthly average flow for this month at a selected number of stations. All data are provisional and may be subject to revision (Source: EPA, OPW)

# Flow hydrographs for selected rivers





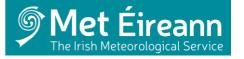


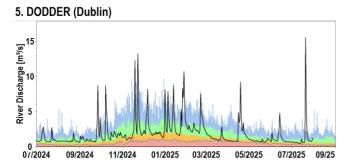


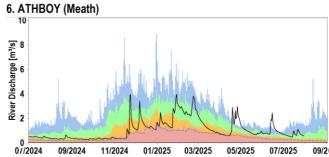


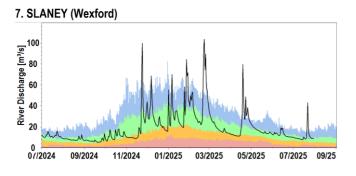


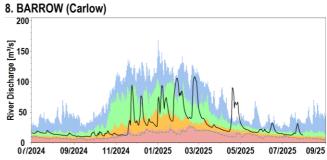


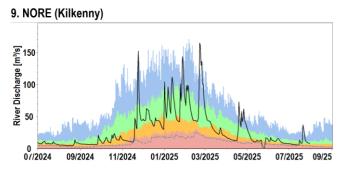


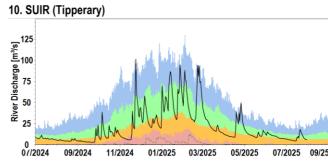


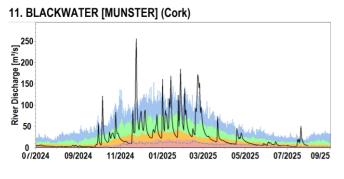


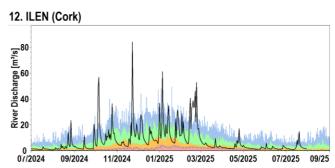


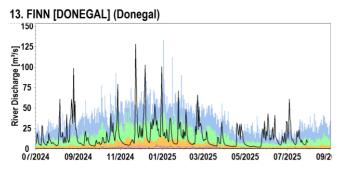


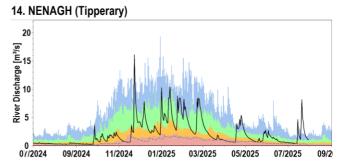




















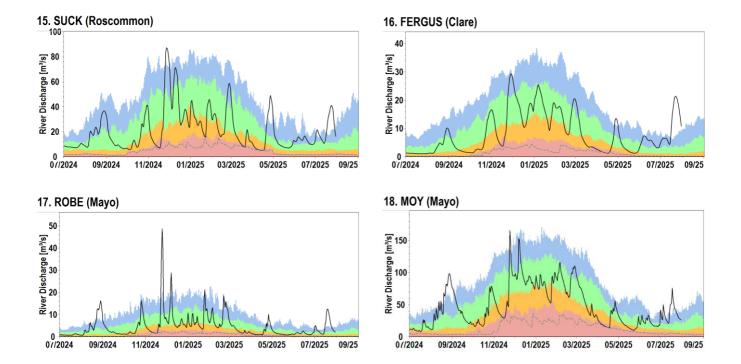


Figure 8: Daily average river flows measured in cubic metres per second relative to historic daily average flows expressed as percentile of the long-term values of each day and long-term minimum flows. All data are provisional and may be subject to revision (Source: EPA, OPW).

Explanation – Classes						
					\\	\/\-\^\
Particularly Low	Below Normal	Normal	Above Normal	Particularly High		
<95%tile daily average flow	>95%tile <70%tile daily average flow	>70 %tile <30%tile daily average flow	>30%tile 10%tile daily average flow	>10%tile daily average flow	Daily Mean Flow	Lowest Daily Mean Flow









# Lake and Turlough Levels

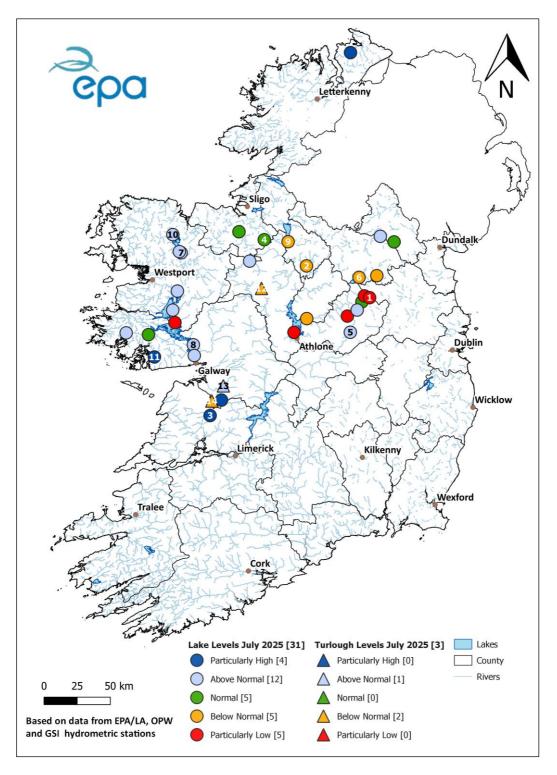


Figure 9: Monthly average lake & turlough levels for July 2025 relative to historic monthly average levels expressed as percentile of the long- term values for this month. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW and GSI).



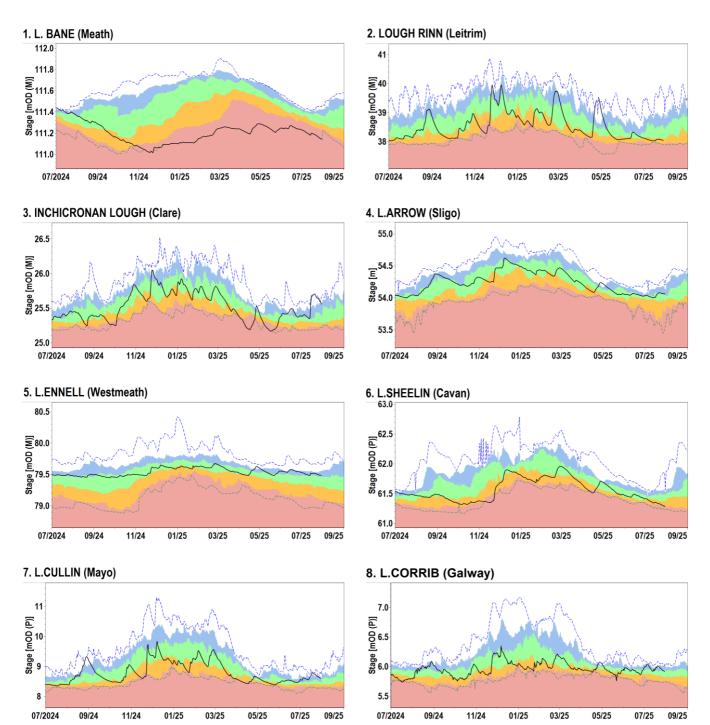








# Water level hydrographs for selected lakes and turloughs

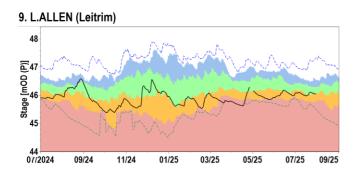


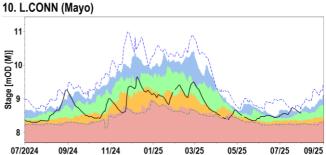


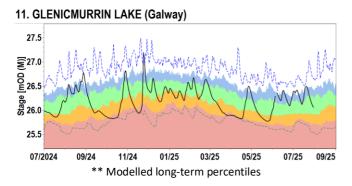


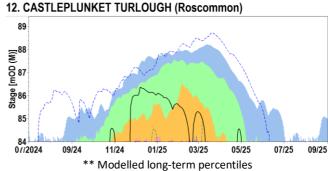


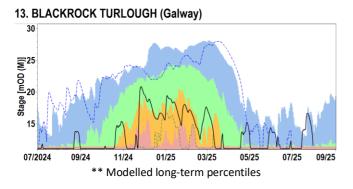












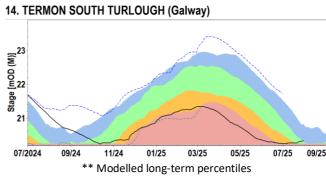


Figure 10: Observed daily mean lake and turlough levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and observed long-term maximum and minimum levels. Note historic percentiles for turloughs are based on modelled data. All data are provisional and may be subject to revision (Source: EPA, OPW, GSI, TCD, IT Carlow).

Explanation - Classes							
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Particularly Low	Below Normal	Normal	Above Normal	Particularly High			
<95%tile daily average level	>95%tile <70%tile daily average level	>70 %tile <30%tile daily average level	>30%tile <10%tile daily average level	>10%tile daily average level	Daily Mean Level mOD	Highest Daily Mean Level mOD	Lowest Daily Mean Level mOD









# Groundwater Levels and Spring Flows

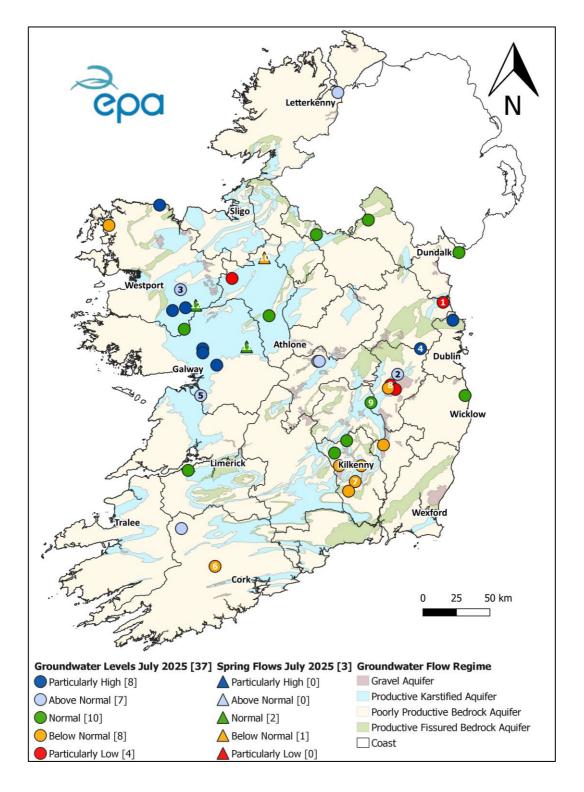


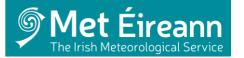
Figure 11: Groundwater level and Spring Flow status for July 2025, relative to historic monthly groundwater levels. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA).



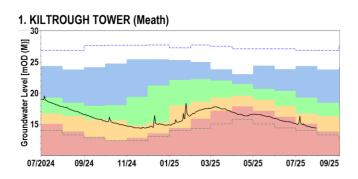


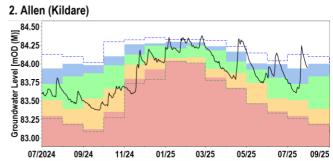


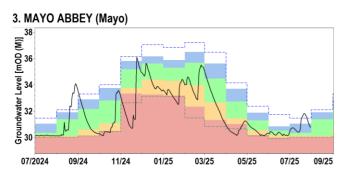


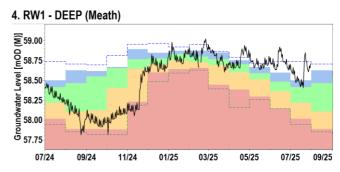


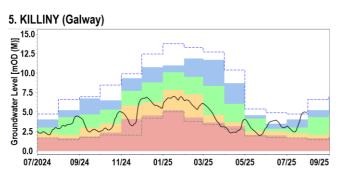
# Groundwater and spring hydrographs

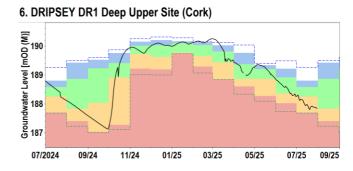


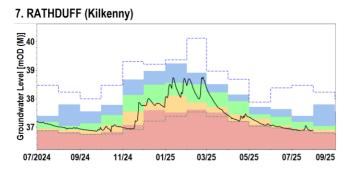


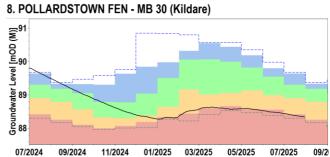










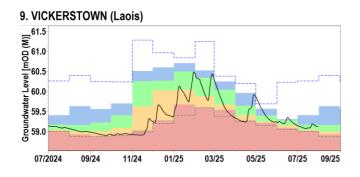


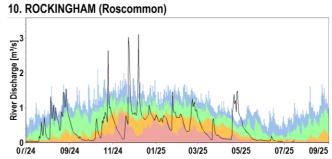


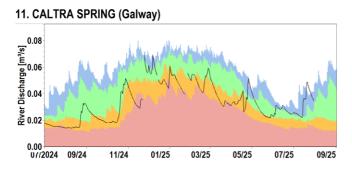












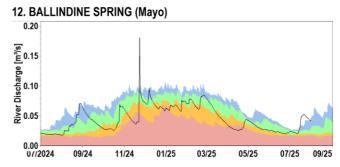


Figure 12: Daily mean groundwater levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and long-term maximum and minimum levels. All data are provisional and may be subject to revision (Source: EPA).

Explanation - Classes							
					<b>\</b>		<sub>t</sub>
Particularly Low	Below Normal	Normal	Above Normal	Particularly			
				High	Daily Mean	Highest Month	Lowest Month
<95%tile	>95%tile	>70 %tile	>30%tile		Level	Mean	Mean
monthly average	<70%tile	<30%tile	<10%tile	>10%tile		Level	Level
level	monthly average	monthly	monthly	monthly	mOD	mOD	mOD
	level	average level	average level	average level			









## Glossary of terms

Aquifer Type	An aquifer is an underground body of water bearing rock or unconsolidated materials (gravel or sand) from which groundwater can be extracted in useful amounts. For the purposes of this report, they have been grouped into four aquifer categories as follows: <ul> <li>Karstic (Rk and Lk) aquifers;</li> <li>Gravel (Rg and Lg) aquifers;</li> <li>Productive fractured bedrock (Rf and Lm) aquifers;</li> <li>Poorly productive bedrock (Ll, Pl and Pu) aquifers.</li> </ul>			
Long term	The arithmetic mean calculated from historic record. For rainfall, the period 1981 to			
average (LTA)	2010 is used. For other parameters, such as groundwater levels, lake levels and river flow the period may vary according to data availability.			
mOD (M or D)	Groundwater levels or lake levels above ordnance datum. In most cases this is relative			
mOD (M or P)	to mean sea level at Malin (M) but in some cases is relative to Poolbeg (P).			
Long-term monthly average	The arithmetic mean calculated from historic record of all monthly averages.			
Percentile Level/Flow	Level or flow that is equalled or exceeded the stated percent of the time, e.g. 30%tile is the level or flow that is equalled or exceeded 30 percent of the time.			
Very Wet Days	A very wet day is a day with 10.0 mm or more of rainfall.			
Wet Days	A wet day is a day with 1.0 mm or more of rainfall.			
Absolute Drought	An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation.			
Partial Drought	A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm			
Dry spell	A dry spell is a period of 15 or more consecutive days to none of which is credited 1.0mm or more of precipitation (i.e. daily tot < 1.0mm).			

# Description of flow and level percentile classifications

Particularly High	>10%tile exceedance	Monthly level or flow that can occur 10% of the time
Above Normal	>30%tile <10%tile exceedance	Monthly level or flow that can occur 20% of the time
Normal	>70%tile <30%tile exceedance	Monthly level or flow that can occur 40% of the time
Below Normal	>95%tile <70%tile exceedance	Monthly level or flow that can occur 25% of the time
Particularly Low	<95%tile exceedance	Monthly level or flow that can occur 5% of the time

### Useful links

Access to EPA/LA Hydrometric data on HydroNet

Access to provisional water level only data from OPW hydrometric stations on waterlevel.ie/

Access to archived water level and flow data from OPW hydrometric stations on waterlevel.ie/hydro-data

Access to turlough and borehole level data from GSI hydrometric stations on gwlevel.ie

Access to this month's Met Éireann and historic weather statements.

