







#### Overview

May 2025 was warm, dry and very sunny overall, especially in the south. Rainfall amounts stayed low in most places. instability on Monday 19<sup>th</sup> and Tuesday 20<sup>th</sup> resulted in scattered, intense thunderstorm activity, some places saw heavy downpours while other places had little or no rain. The final week of the month saw westerly winds return with low pressure to the north steering several frontal rainbands across the country, interspersed with sunshine and showers.

The monthly average river flows decreased at all monitoring stations in May when compared to April with 45% of river flows below the normal long-term range. Groundwater levels and lake levels also decreased in May with 50% of groundwater levels and 56% of lake levels below the normal long-term range. Out of the four spring flows monitored, 3 were in the normal range, and 1 was in the below normal range.

#### Rainfall

Nearly all rainfall totals were below their 1991-2020 Long-Term Average (LTA). Percentage of monthly rainfall values ranged from 31% (the month's lowest monthly rainfall total of 19.9 mm) at Roches Point, Co Cork (its driest May on record, length 18 years) to 104% (monthly rainfall total of 79.2 mm) at Finner, Co Donegal. Monthly rainfall totals were as much as 88.2 mm (89% of its LTA) at Newport, Co Mayo. The highest daily rainfall total was 19.3 mm at Casement Aerodrome, Co Dublin on Tuesday 20<sup>th</sup>. The number of rain days ranged from 8 days at a few stations to 13 days at Casement Aerodrome, Co Dublin. The number of wet days ranged from 5 days at both Roches Point, Co Cork and Johnstown Castle, Co Wexford to 11 days at Phoenix Park, Co Dublin. The number of very wet days ranged from zero days at a few stations to 4 days at Newport, Co Mayo.

There were numerous climatological dry periods ending in May. Twenty stations had dry spells, between 26<sup>th</sup> April and 22<sup>nd</sup> May, lasting between 15 and 27 days (Athenry, Co Galway and Mount Dillon, Co Roscommon). Eleven stations had absolute droughts, between April 26<sup>th</sup> and May 22<sup>nd</sup>, lasting between 15 and 25 days (Athenry, Co Galway). Two stations observed partial droughts, from April 26<sup>th</sup> to May 25<sup>th</sup>, lasting 30 days (Moore Park, Co Cork and Roches Point, Co Cork). Four stations had consecutive zero rainfall days: 22 consecutive days at Moore Park, Co Cork, 23 consecutive days at Mullingar, Co Westmeath and both Athenry, Co Galway and Markree, Co Sligo had 24 consecutive days, all ended by May 22<sup>nd</sup>.

#### River Flows

The average river flows for May decreased at all the river monitoring stations compared to average flows observed in April 2025. Analysis of the monthly average flows at 139 river monitoring sites, identified, 2 (1%) 'above normal', 75 (54%) as 'normal', 55 (40%) as 'below normal' and 7 (5%) as 'particularly low'.











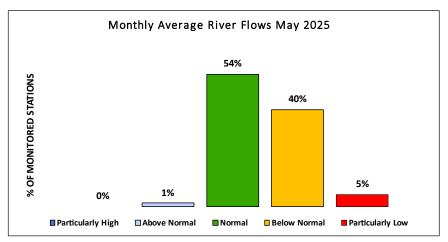


Figure 1: Percentage distribution of river flow monitoring sites within each of the percentile flow categories for May 2025.

### Lake and Turlough Levels

Average water levels for May decreased at 79% of lake sites monitored compared to April 2025. Monthly average levels at 29 lakes and 3 turloughs were classified as being 'above normal' at 3 (10%), 'normal' at 11 (34%), 'below normal' at 11 (34%) and 'particularly low' at 7 (22%).

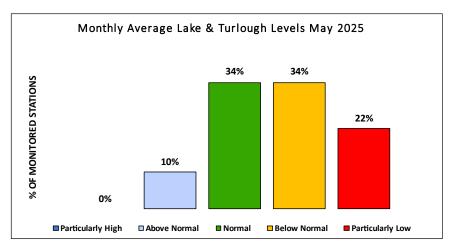


Figure 2: Percentage distribution of lake and turlough level monitoring sites within each of the percentile flow categories for May 2025

### Groundwater Levels and Spring Flows

Groundwater levels for May were lower at 89% of the monitoring wells compared to average levels observed in April 2025. Groundwater levels at 38 monitoring wells were classified as being 'particularly high' at 3 wells (8%) 'above normal' at 4 wells (11%), 'normal' at 12 wells (31%), 'below normal' at 15 wells (39%), and 'particularly low' at 4 wells (11%).









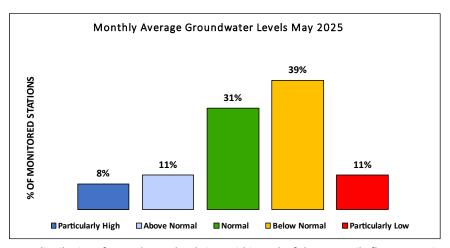


Figure 3: Percentage distribution of groundwater level sites within each of the percentile flow categories for May 2025.

Spring outflows were also monitored at 4 EPA monitoring sites for April. The outflows from these springs were compared to previously recorded May flows and were classified as 'normal' at 3 locations, and 'below normal' at 1 site at Gortgarrow Spring, Co.Galway.









#### Rainfall

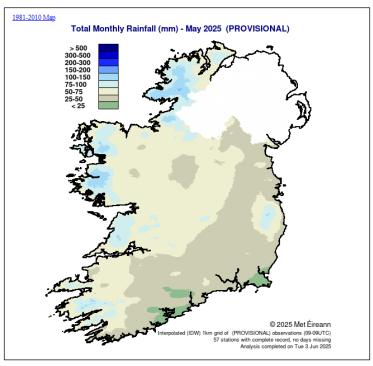


Figure 4: Rainfall map for Ireland May 2025 (Source: Met Eireann.ie).

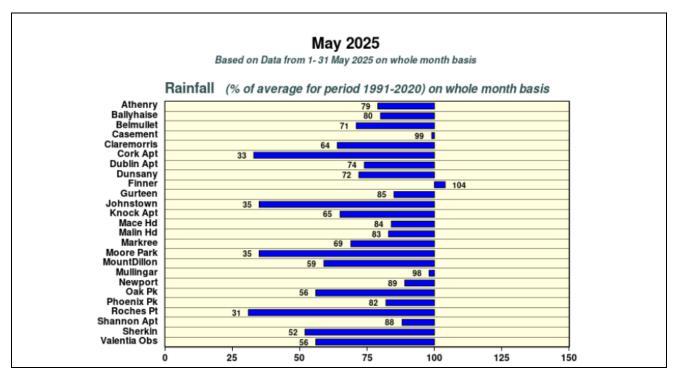


Figure 5: Summary of rainfall at synoptic stations for May 2025, figures indicate the percentage difference from the Long-Term Average rainfall for this month (Source: Met Eireann.ie).











### **River Flows**

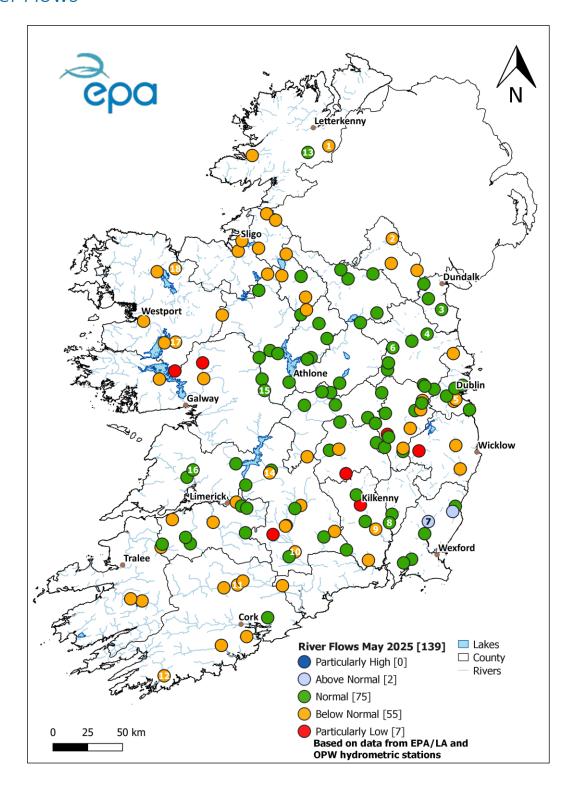


Figure 6: Monthly average river flows for May 2025 relative to historic monthly average flows expressed as percentile of the long-term values of monthly flow. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW).











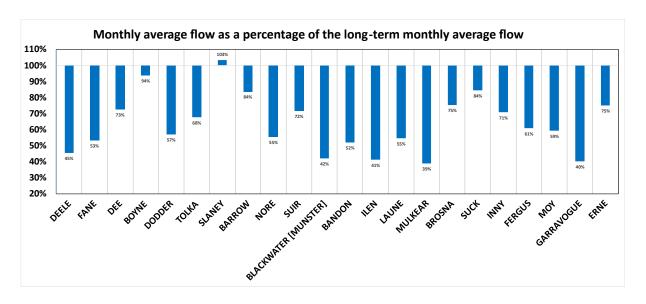
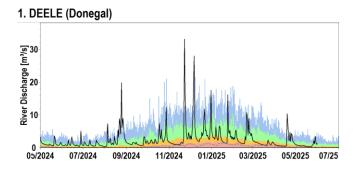
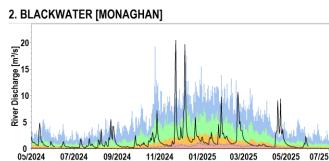
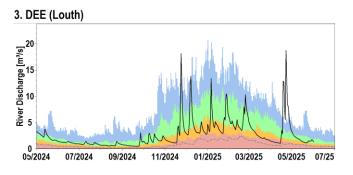


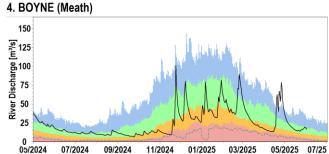
Figure 7: May 2025 average flows as a percentage of the long-term monthly average flow for this month at a selected number of stations. All data are provisional and may be subject to revision (Source: EPA, OPW)

## Flow hydrographs for selected rivers







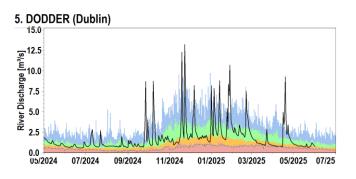


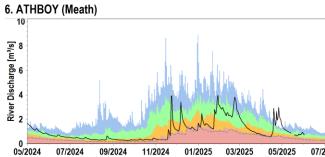


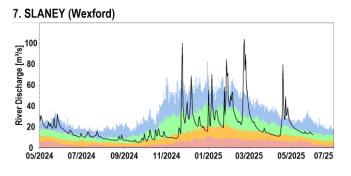


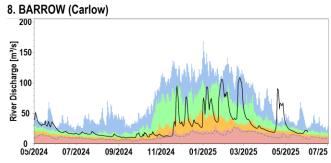


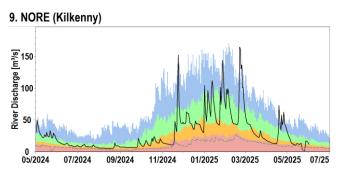


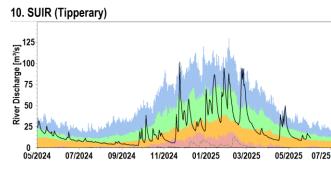


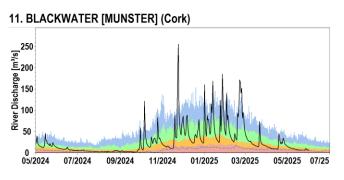


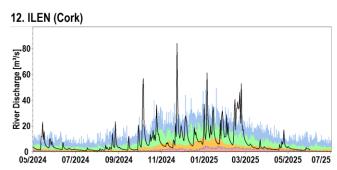


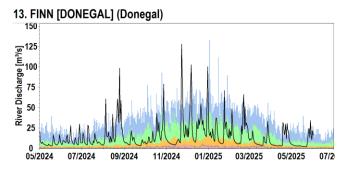


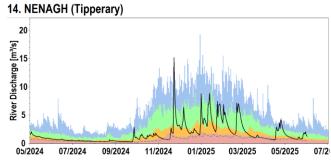




















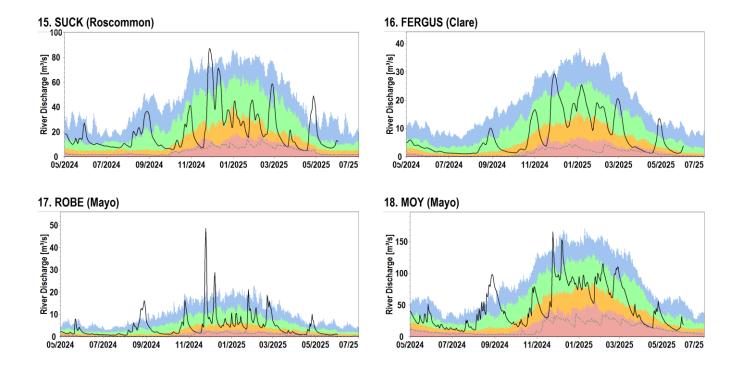


Figure 8: Daily average river flows measured in cubic metres per second relative to historic daily average flows expressed as percentile of the long-term values of each day and long-term minimum flows. All data are provisional and may be subject to revision (Source: EPA, OPW).

Explanation – Classes						
					$\sim$	1/1/-/1
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

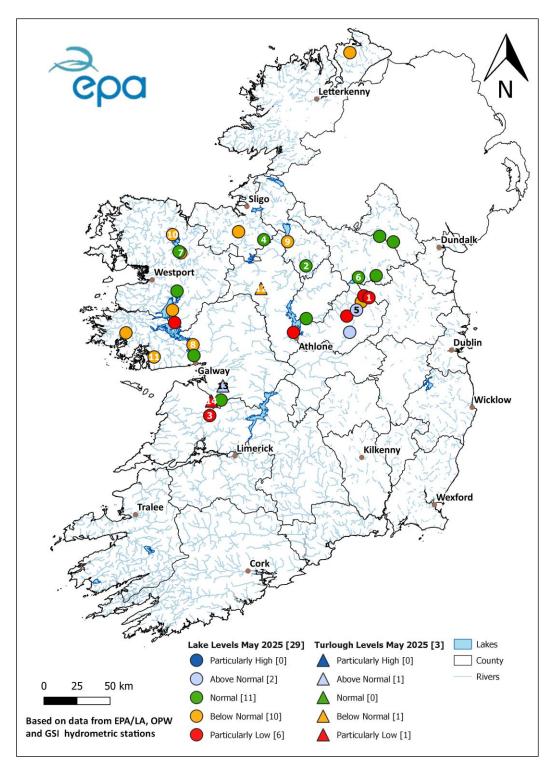


Figure 9: Monthly average lake & turlough levels for May 2025 relative to historic monthly average levels expressed as percentile of the long- term values for this month. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW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



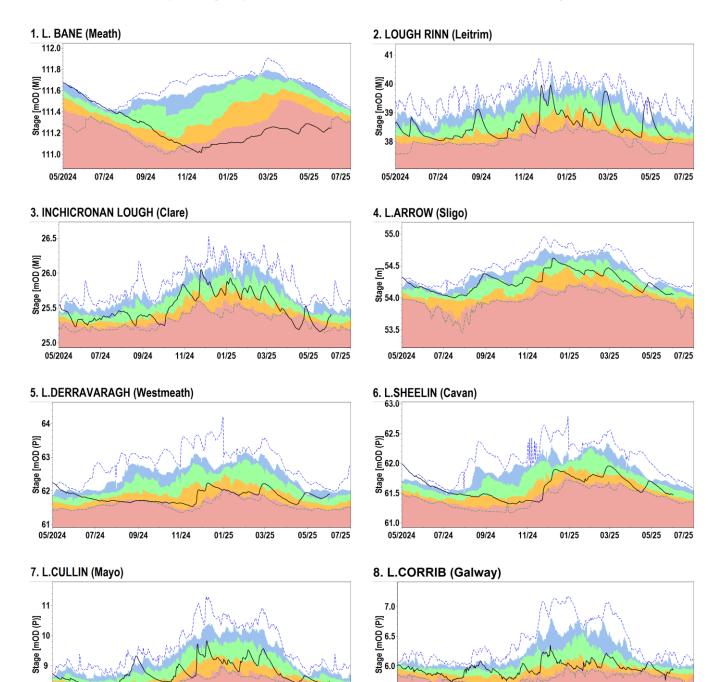








## Water level hydrographs for selected lakes and turloughs



5.5

05/2024

07/24

09/24

11/24

01/25

03/25

05/25

07/25

05/2024

07/24

09/24

11/24

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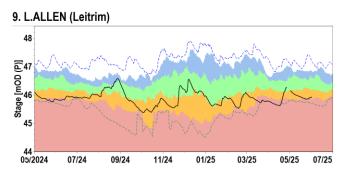
07/25

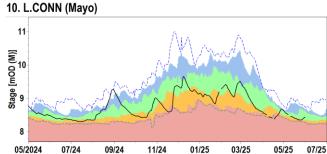


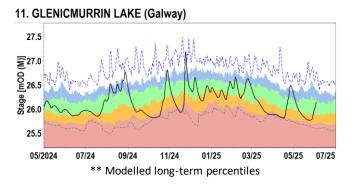


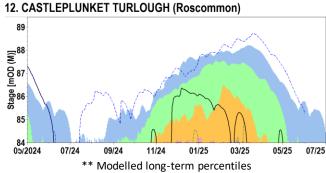


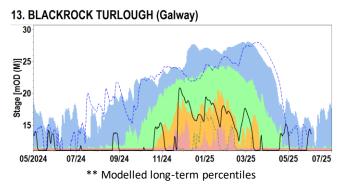












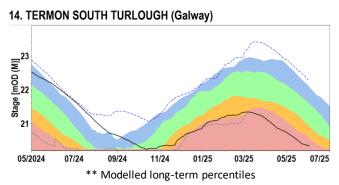


Figure 10: Observed daily mean lake and turlough levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and observed long-term maximum and minimum levels. Note historic percentiles for turloughs are based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

Explanation - Classes							
						パンシン	1/1/2/1
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**

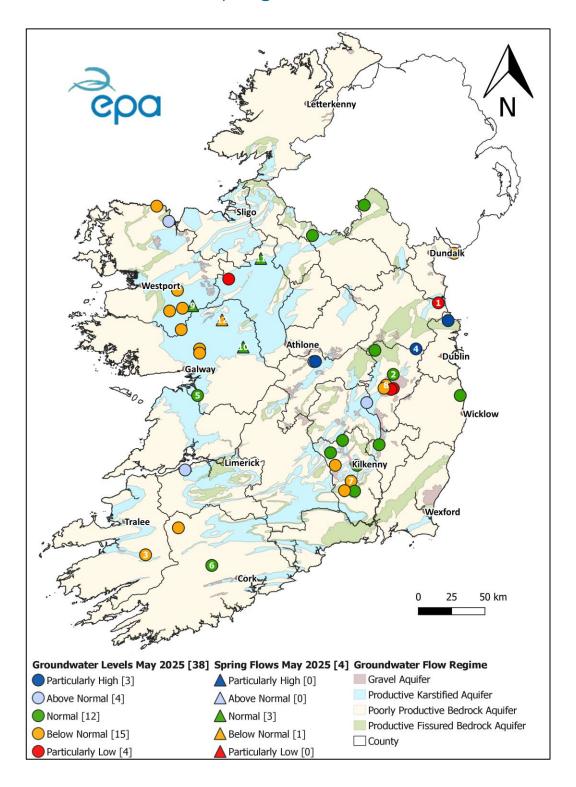


Figure 11: Groundwater level and Spring Flow status for May 2025, relative to historic monthly groundwater levels. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA).



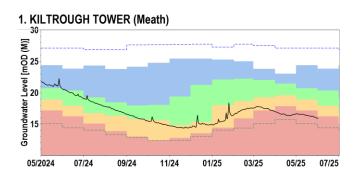


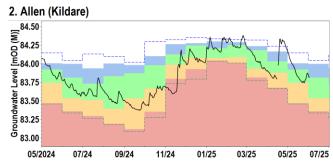


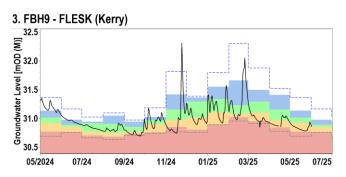


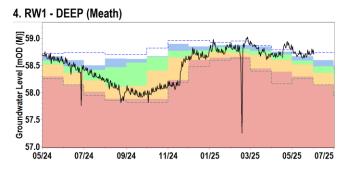


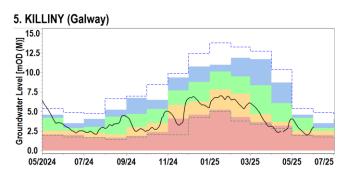
## Groundwater and spring hydrographs

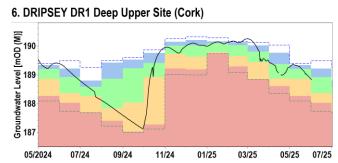


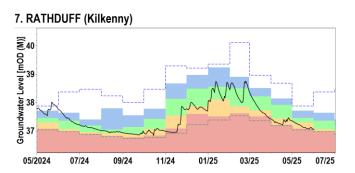


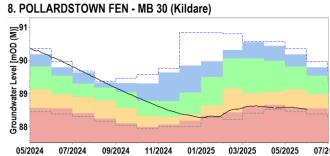










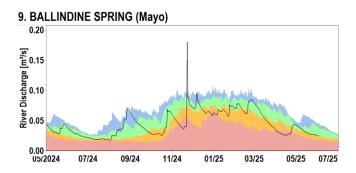


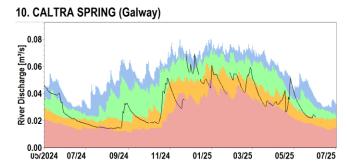


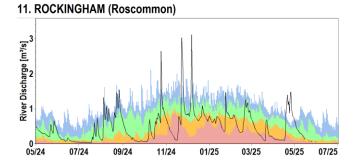












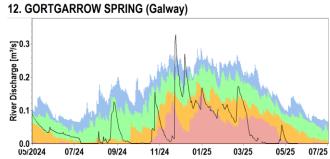


Figure 12: Daily mean groundwater levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and long-term maximum and minimum levels. All data are provisional and may be subject to revision (Source: EPA).

Explanation - Classes							
					<b>\</b>		
Particularly Low	Below Normal	Normal	Above Normal	Particularly			
				High	Daily Mann	Highest Month	Lowest Month
<95%tile	>95%tile	>70 %tile	>30%tile		Daily Mean	Mean	Mean
monthly average	<70%tile	<30%tile	<10%tile	>10%tile	Level	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>			
Dry spell	A dry spell is a period of 15 or more consecutive days to none of which is credited 1.0 mm or more of precipitation (i.e. daily tot < 1.0 mm).			
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 P)	Groundwater levels or lake levels above ordnance datum. In most cases this is relative			
	to mean sea level at Malin (M) but in some cases is relative to Poolbeg (P).			
Long-term	The arithmetic mean calculated from historic record of all monthly averages.			
monthly average				
Percentile	Level or flow that is equalled or exceeded the stated percent of the time, e.g. 30% tile is			
Level/Flow	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.			
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 < 1.0 mm).			
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			

## 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 20% 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.

