







Overview

April 2025 was warm and dry for the first half of the month and wet for the second half, especially in the midlands, south and east. The wettest period of the month was Wednesday 16th to Saturday 19th, this was followed by further bands of rain or showers, sometimes heavy, up to Saturday 26th. High pressure to the east began to take control once again and led to record breaking maximum temperatures for April being reported on the final day of the month.

Although the monthly average river flows increased in April when compared to March, 28% of river flows were below the normal long-term range. Groundwater levels and lake levels decreased in April with 67% of groundwater levels and 81% of lake levels below the normal long-term range. Out of the four spring flows monitored, 1 was in the normal range, 1 was in the 'below normal' range and 2 were 'particularly low'.

Rainfall

The majority of monthly rainfall totals were above their 1991-2020 Long-Term Average (LTA). The percentage of monthly rainfall values ranged from 83% (the month's lowest rainfall total of 61.0 mm) at Sherkin Island, Co Cork to 172 % (the month's highest rainfall total of 110.4 mm) at Roches Point, Co Cork. The month's wettest day was also recorded at Roches Point, Co Cork with 44.5 mm on Friday 18th (its 2nd highest daily rainfall total for April on record (length 20 years) behind 49.8 mm, which fell on Monday 15th April 2019). The number of rain days ranged from 10 days at Shannon Airport, Co Clare to 17 days at Sherkin Island, Co Cork. The number of wet days ranged from 8 days at Shannon Airport, Co Clare to 13 days at both Valentia Observatory, Co Kerry and Belmullet, Co Mayo. The number of very wet days ranged from 2 days at Moore Park, Co Cork to 5 days at both Johnstown Castle, Co Wexford and Mount Dillon, Co Roscommon.

Shannon Airport, Co Clare and Mount Dillon, Co Roscommon had their wettest April since 2009, while Phoenix Park, Co Dublin and Dunsany, Co Meath had their wettest April since 2012. Knock Airport, Co Mayo, Mount Dillon and Gurteen, Co Tipperary all had their wettest April day on record on Friday 18th (record lengths between 17 and 28 years). Shannon Airport, Co Clare had its wettest April day since 1978, Mullingar, Co Westmeath had its wettest April day since 1991 and Newport, Co Mayo had its wettest April day since 1999, all on Friday 18th, while Casement, Co Dublin had its wettest April day since 2002 on Wednesday 16th. Six stations, mostly in the East, had dry spells 6 between March 28th and April 14th lasting between 15 and 18 days. One station, Casement Aerodrome, Co Dublin, had a partial drought lasting 29 days ending on 12th April. Dunsany, Co Meath saw 14 consecutive dry days (0.0 mm) between Sunday 30th March and Saturday 12th April inclusive.

River Flows

The average river flows for April increased at 59% of river monitoring stations compared to average flows observed in March 2025. Analysis of the monthly average flows at 140 river monitoring sites, identified 6 (4%) as 'particularly high', 14 (10%) 'above normal', 81 (58%) as 'normal', and 36 (26%) as 'below normal' and 3 (2%) as 'particularly low' (see Figure 6).











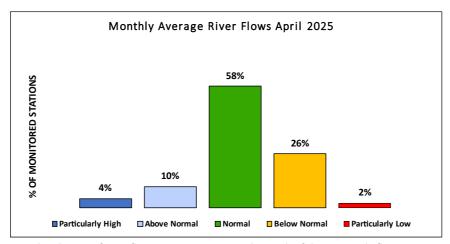


Figure 1: Percentage distribution of river flow monitoring sites within each of the percentile flow categories for April 2025.

Lake and Turlough Levels

Average water levels for April decreased at 96% of lake sites monitored compared to March 2025. Monthly average levels at 28 lakes and 4 turloughs were classified as being 'normal' at 6 (19%), 'below normal' at 12 (37%) and 'particularly low' at 14 (44%).

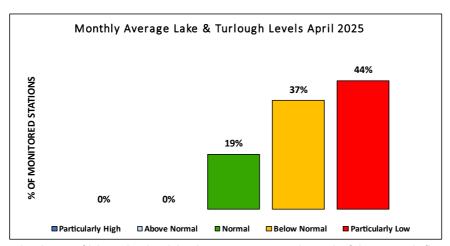


Figure 2: Percentage distribution of lake and turlough level monitoring sites within each of the percentile flow categories for April 2025

Groundwater Levels and Spring Flows

Groundwater levels for April were lower at 91% of the monitoring wells compared to average levels observed in March 2025. Groundwater levels at 34 monitoring wells were classified as being 'particularly high' at 2 (6%) 'above normal at 1 well (3%), 'normal' at 8 wells (24%), 'below normal' at 11 wells (32%), and 'particularly low' at 12 (35%).









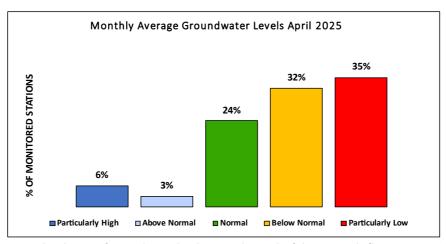


Figure 3: Percentage distribution of groundwater level sites within each of the percentile flow categories for April 2025.

Spring outflows were also monitored at 4 EPA monitoring sites for April. The outflows from these springs were compared to previously recorded April flows and were classified as 'normal' at 1 location, 'below normal' at 1 location and 'particularly low' at 2 sites.









Rainfall

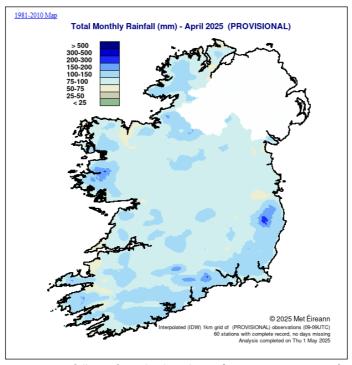


Figure 4: Rainfall map for Ireland April 2025 (Source: Met Eireann.ie).

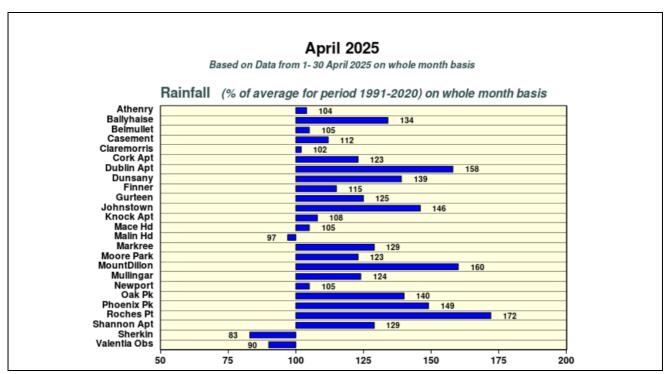


Figure 5: Summary of rainfall at synoptic stations for April 2025, figures indicate the percentage difference from the Long-Term Average rainfall for this month (Source: Met Eireann.ie).











River Flows

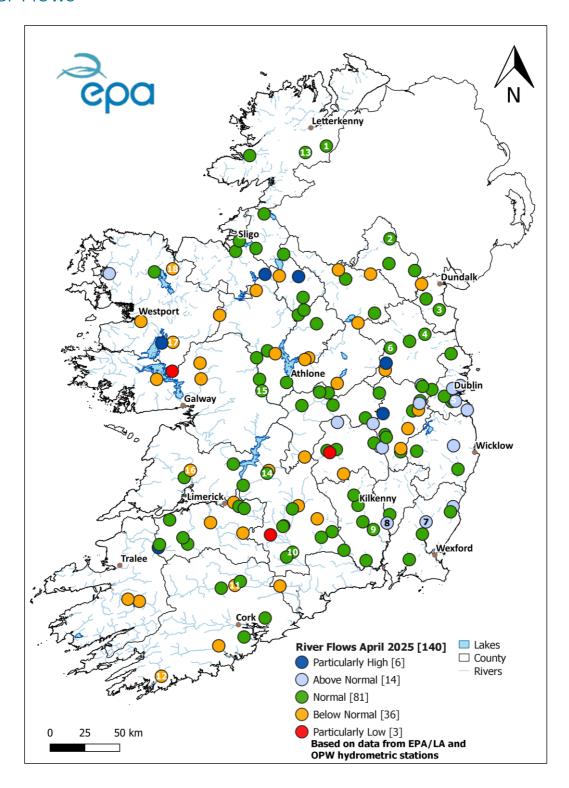


Figure 6: Monthly average river flows for April 2025 relative to historic monthly average flows expressed as percentile of the long-term values of monthly flow. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW).











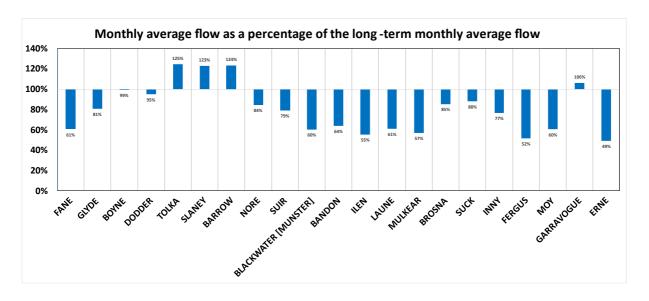
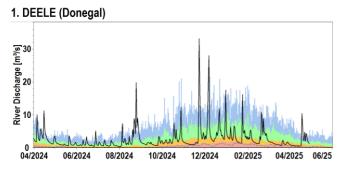
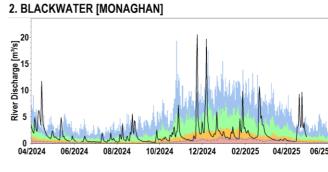
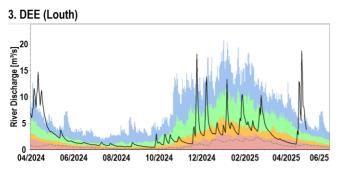


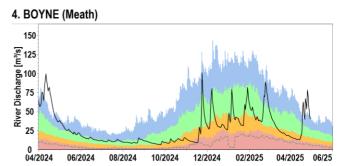
Figure 7: April 2025 average flows as a percentage of the long-term monthly average flow for this month at a selected number of stations. All data are provisional and may be subject to revision (Source: EPA, OPW)

Flow hydrographs for selected rivers







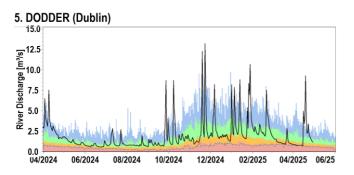


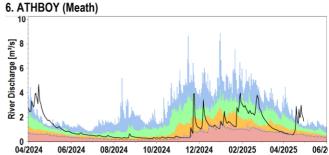


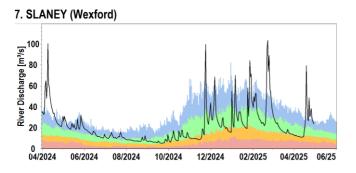


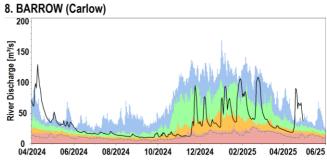


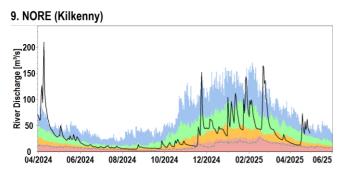


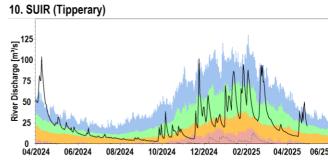


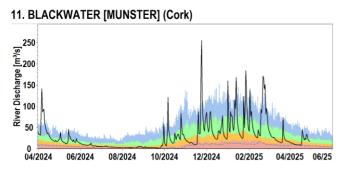


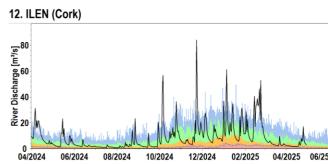


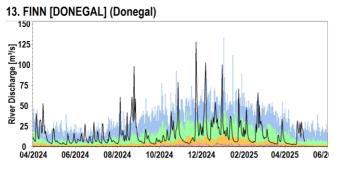


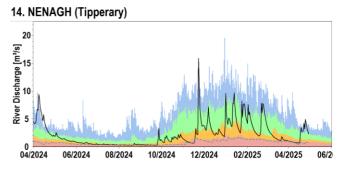




















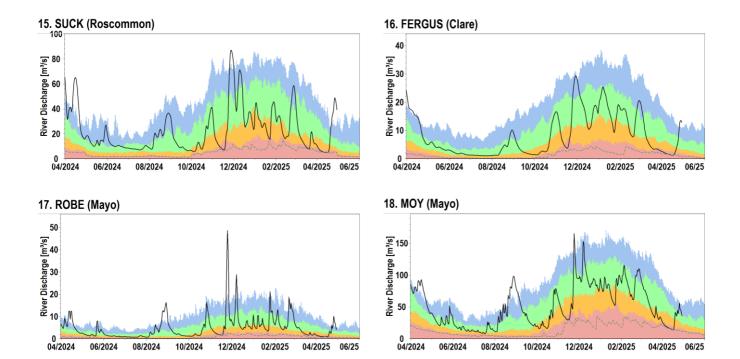


Figure 8: Daily average river flows measured in cubic metres per second relative to historic daily average flows expressed as percentile of the long-term values of each day and long-term minimum flows. All data are provisional and may be subject to revision (Source: EPA, OPW).

Explanation – Classes						
					\\	シンシン
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

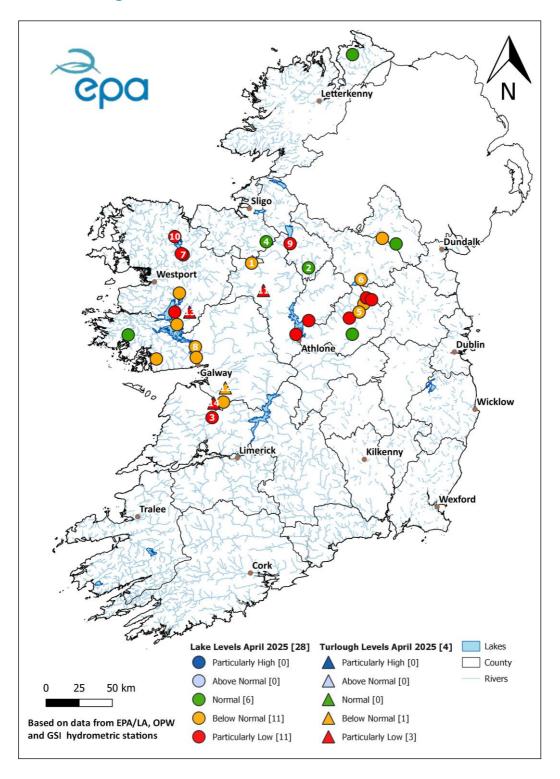


Figure 9: Monthly average lake & turlough levels for April 2025 relative to historic monthly average levels expressed as percentile of the long- term values for this month. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA, OPW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



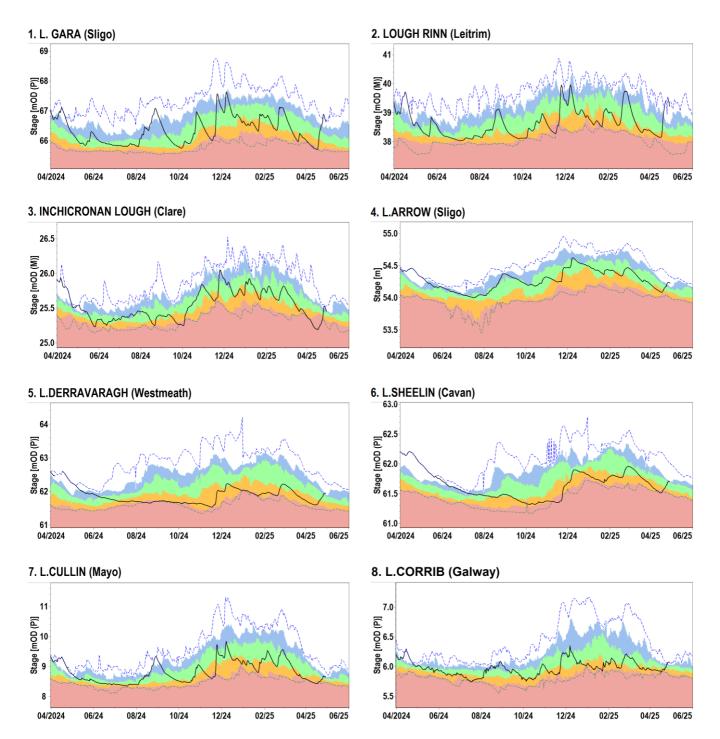








Water level hydrographs for selected lakes and turloughs

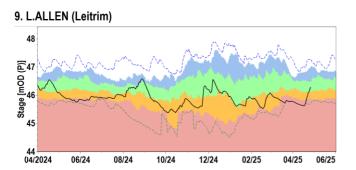


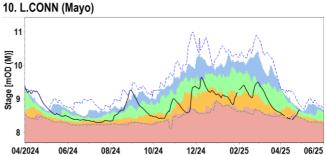


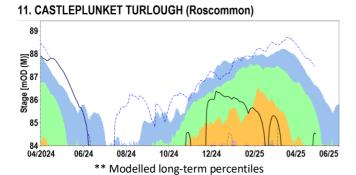


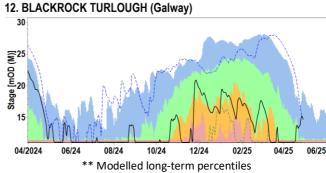


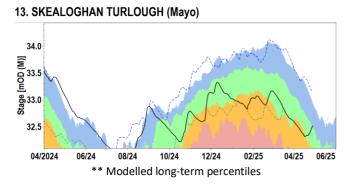












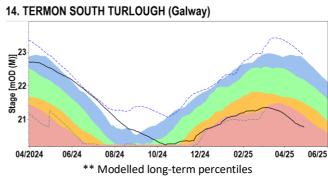


Figure 10: Observed daily mean lake and turlough levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and observed long-term maximum and minimum levels. Note historic percentiles for turloughs are based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

Explanation - Classes							
					\sim	パンシン	ンクレーク
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

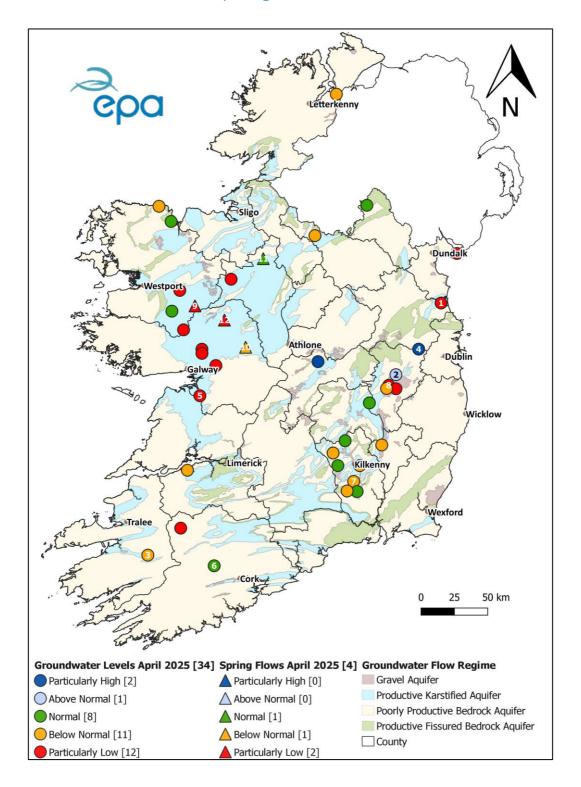


Figure 11: Groundwater level and Spring Flow status for April 2025, relative to historic monthly groundwater levels. Numbered sites are represented in the hydrographs below. All data are provisional and may be subject to revision (Source: EPA).



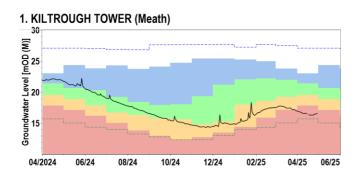


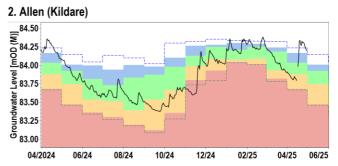


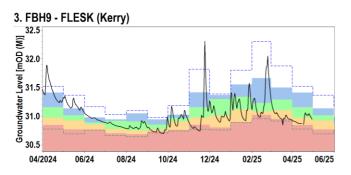


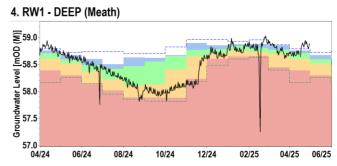


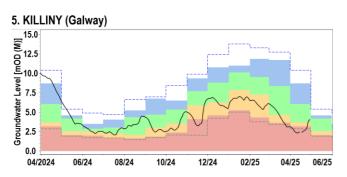
Groundwater and spring hydrographs

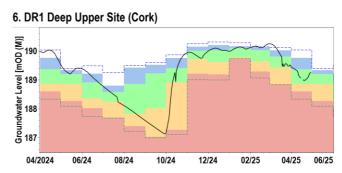


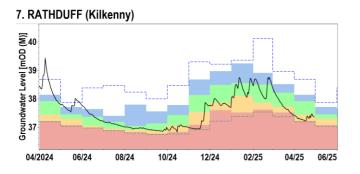


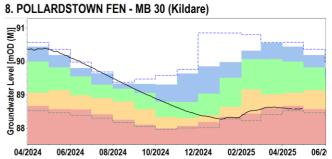










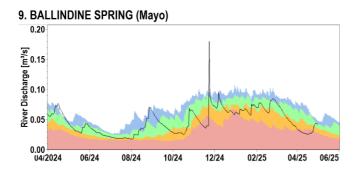


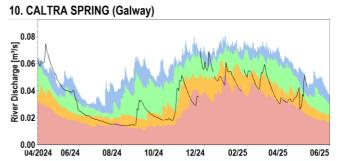


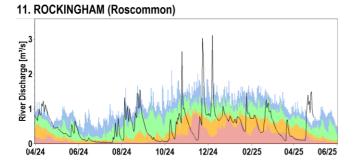












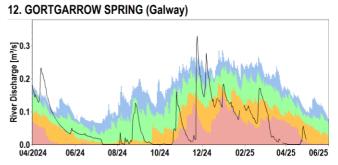


Figure 12: Daily mean groundwater levels (black trace) measured in meters above ordnance datum compared to the 10%tile, 30%tile, 70%tile and 95%tile for each month for the period of record and long-term maximum and minimum levels. All data are provisional and may be subject to revision (Source: EPA).

Explanation - Classes							
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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: Karstic (Rk and Lk) aquifers; Gravel (Rg and Lg) aquifers; Productive fractured bedrock (Rf and Lm) aquifers; Poorly productive bedrock (Ll, Pl and Pu) aquifers. 			
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 average (LTA)	The arithmetic mean calculated from historic record. For rainfall, the period 1981 to 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 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.			
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.

