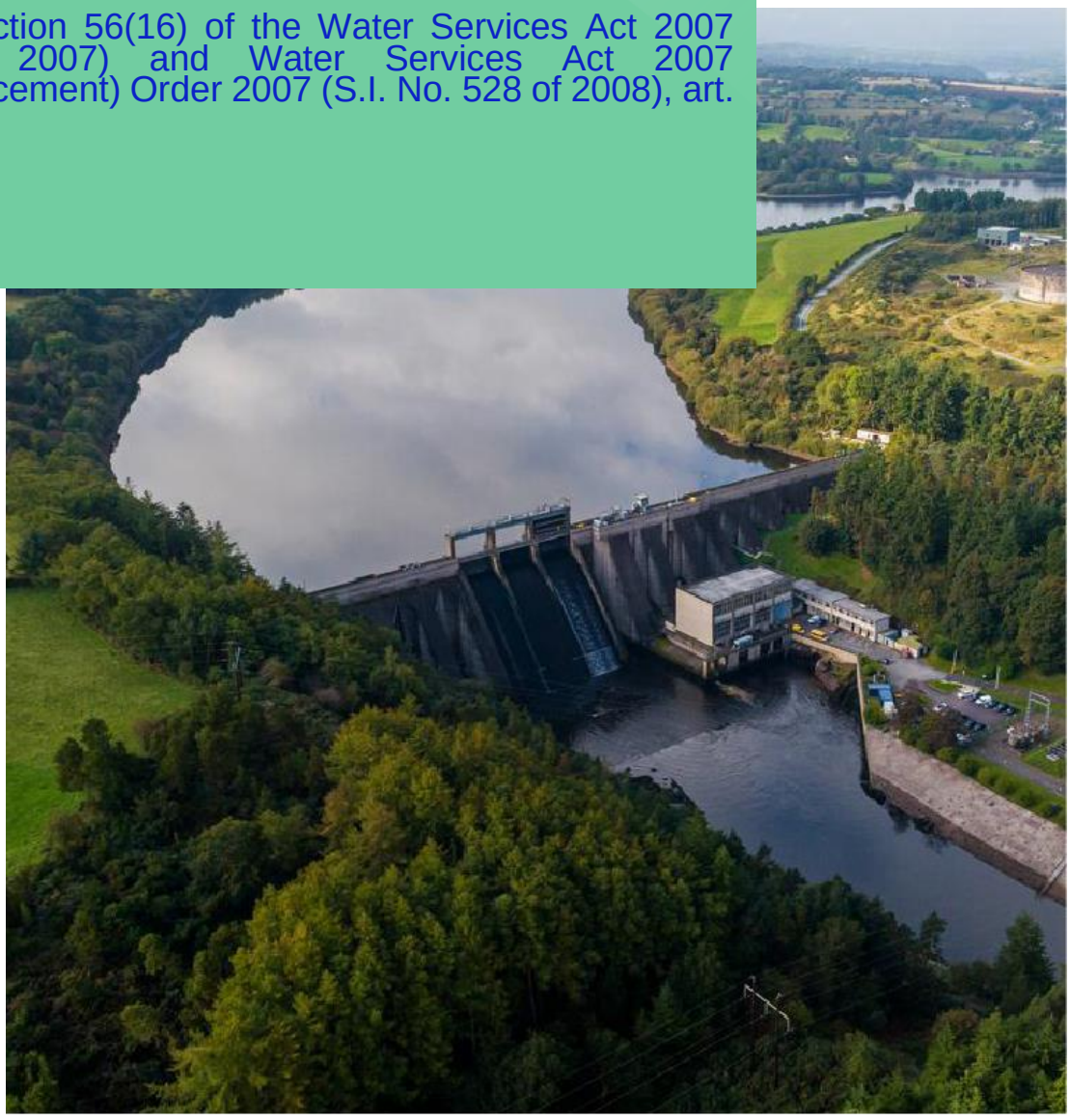
4th September 2025

Report

Technical Report on Introduction of Water Conservation Order for the Kells/Oldcastle (County Meath), Milford (County Donegal), and Mullingar (County Westmeath) Areas

Under Section 56(16) of the Water Services Act 2007 (S.I. 30 2007) and Water Services Act 2007 (Commencement) Order 2007 (S.I. No. 528 of 2008), art. 2



UE/FF/LDB/0323

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1. Note of Technical Expertise

Zuzana O'Neill, BSc, dual MSc

I am a Water Asset Strategy Technical Lead, working within the Asset Management Section of Uisce Éireann. I am a Scientist and hold a BSc in Geography and dual MSc in Environmental Water Management and Land and Water Management. My recent experience includes analysis of water supply and demand balances, the preparation of Ireland's first National Water Resource Plan (NWRP) and the development of Drought Plans.

2. Technical Justification for Water Conservation Order

At present (4th September 2025) the European Drought Observatory (EDO) classifies the majority of Ireland as under either Drought Watch, Drought Warning or Alert. This has been the case for much of the country since the start of the 2025, based on a significantly drier than average autumn and winter 2024/2025 period, following directly into an exceptionally warm and dry spring 2025 and summer

In response to this dry period, Uisce Éireann announced a Water Conservation Order (WCO for the following public supplies, to safeguard the water supply over the summer:

- Kells/Oldcastle (Co. Meath), Milford (Co. Donegal), and Mullingar (Co Westmeath in Early May 2025, extending further until 16th September and proposing to extend further to the 13th October 2025.
- Co. Cork (Excluding Cork City), Co. Tipperary, Co. Waterford, and Co. Wexford from 26th July to 16th September.

Three sources in particular have reached a critical stage, namely: Lough Bane (Kells/Oldcastle supply, Co Meath), Lough Colmcille (Milford supply, Co Donegal), and Lough Owel (Mullingar supply, Co Westmeath). Lough Bane and Lough Colmcille are currently at the lowest level ever recorded for this time of year. While not at a record low yet, Lough Owel's lake level is very low for this time of the year. Under the current circumstances it will take a significant increase in rainfall over the coming months for water levels to recover to typical average levels. However, current weather forecast predictions do not indicate any significant period of prolonged rainfall in the near future.

A detailed list of all towns potentially impacted by the low levels in each of the three supplies is presented in Table 1. Maps of the affected areas are provided in Appendix 1, Appendix 2 and Appendix 3.

Table 1. Supplies and their towns impacted by Water Conservation Order

Supply	Towns
Kells/Oldcastle	Oldcastle, Crossakeel, Carlanstown
Milford	Milford, Carrowkeel, Ramelton
Mullingar	Mullingar Town, Ballynacarrigy, Moyvore, Ballymore, Moate, Rathowen, Streete, Rathconrath, Killucan, Coralstown, Kinnegad, Milltownpass, Tyrrellspass, Kilbeggan, Ballinagore, Gaybrook, Horseleap

Met Éireann data demonstrates that the North, the West and the East of the country has been consistently drier than normal since May 2024.

Autumn 2024 was ‘driest in the northwest and east’ as described by Met Éireann. Nearly all rainfall totals were below their Long-Term Average (LTA) for the autumn season in this region of the country. Rainfall in Winter 2024/2025 was also below average for most of Ireland’s weather stations.

The dry Winter period in 2024/2025 had a particularly large impact on our lake sources which typically recharge over the Wintertime to support the lower rainfall rates and higher water demands expected in Summer. Typically, lake levels are at their peak in March/April and reduce throughout Summer. However, the severe lack of rainfall during the normal recharge period in autumn and winter of 2024/2025 has resulted in many lakes and river sources across the country being well below their normal flows and water levels for this time of the year. In particular, there are critical concerns with regard to three sources which are at their lowest levels ever recorded for this time of year, namely; Lough Bane, Lough Colmcille, and Lough Owel.

Further to this, it has been an exceptionally spring in 2025, with March 2025 being one of the driest on record for several weather stations across the country. We experienced dry spells in early May with some weather stations across the country declaring drought status. June was wet in the North West Region, with this rainfall helping to maintain the levels at Lough Bane (Kells/Oldcastle supply, Co Meath), Lough Colmcille (Milford supply, Co Donegal), and Lough Owel

(Mullingar supply, Co Westmeath); however lake levels did not increase. Since July, lake levels have started to drop again. August was particularly dry and warm across the country; of note was Malin Head weather station which received approximately 62% of its average rainfall for the month follow by above average temperature which has resulted in further decrease of lake levels in the area. Summer 2025 continued the trend of being warmer than normal, with it being 'The Warmest Summer on the Record' as described by Met Éireann.

Uisce Éireann will continue to monitor the situation at a national level as the Autumn progresses, however, there are critical concerns with regard to three sources which are at their lowest levels ever recorded for this time namely; Lough Bane, Lough Colmcille, and Lough Owel.

As we go into Autumn it is predicted the water levels at these sources will further reduce. To reduce demand and limit any potential impact on the environment I consider it necessary to extend the existing Water Conservation Order to prohibit certain categories of water usage across these three supplies, namely Kells/Oldcastle (County Meath), Milford (County Donegal), and Mullingar (County Westmeath). This Order should, given the data currently available to us, be effective for a further four weeks from the date it is made and should apply to all the supplies listed in Table 1 and outlined in the map in Appendix 1, Appendix 2 and Appendix 3. This Order will assist Uisce Éireann to appropriately manage water supplies in the affected areas and to attempt to control the rate at which the lake levels are being depleted until there is sufficient rainfall to replenish them. Taking action now allows Uisce Éireann to avail of options that are unlikely to be available to us later if conditions further deteriorate in future weeks.

UÉ will continue to monitor the prevailing conditions, and it may be necessary to extend the specified period further and/or extend the Order to cover more supplies.

The technical justification for the proposed Water Conservation Order is that we have experienced dry weather in the North West, Eastern and Midlands Regions over a prolonged period, evidencing a critical decrease in raw water availability at Lough Bane (Kells/Oldcastle, County Meath), Lough Colmcille (Milford, County Donegal), and Lough Owel (Mullingar, County Westmeath). If left unchecked, this will result in a risk of failure of the water supply networks in Kells/Oldcastle, Milford, and Mullingar over the coming months. This has given rise to the opinion that there is or is likely to be a serious deficiency of water available for distribution in these areas.

Uisce Éireann must be especially cognisant of the risk to water supplies in autumn due to the current prolonged period of dry weather with further dry weather forecasted. We must prudently manage that risk by conserving and reducing water consumption now to ensure continuity of supply. Uisce Éireann must therefore take a precautionary approach in formulating the proposed Water Conservation Order. In considering the proposed Water Conservation Order and its duration, Uisce Éireann must and has considered the potential hardship to and economic impacts on domestic and commercial water users.

2.1. Evidence of Drought/Extreme Weather

Rainfall levels have been significantly below average over the 2024/2025 autumn and winter months. March 2025 has been dry everywhere, with below average rainfall. April brought a dry spell followed by heavy rainfall. May was dry with drought conditions declared across the country. June was wet with heavy rainfall in the North West region. We experienced average rainfall amounts in July. August has been dry. The Met Éireann Monthly Forecast predicts that precipitation is likely to be around the average over the coming weeks across the North West and Midlands Region. Whilst precipitation in the North West might experience nearer to normal levels in the coming weeks, due to the prolonged dry spell over the past months, it may take many weeks of higher than normal rainfall to replenish the water sources in this area.

2.1.1. Met Éireann Data

Figure 1 to 6, below, demonstrate the monthly rainfall data compared to the Long-Term Average for each demonstrate the monthly rainfall data compared to the Long-Term Average for each month for the weather gauges at Athenry, Johnstown Castle, Malin Head, Mullingar, Phoenix Part and Roches Point respectively.

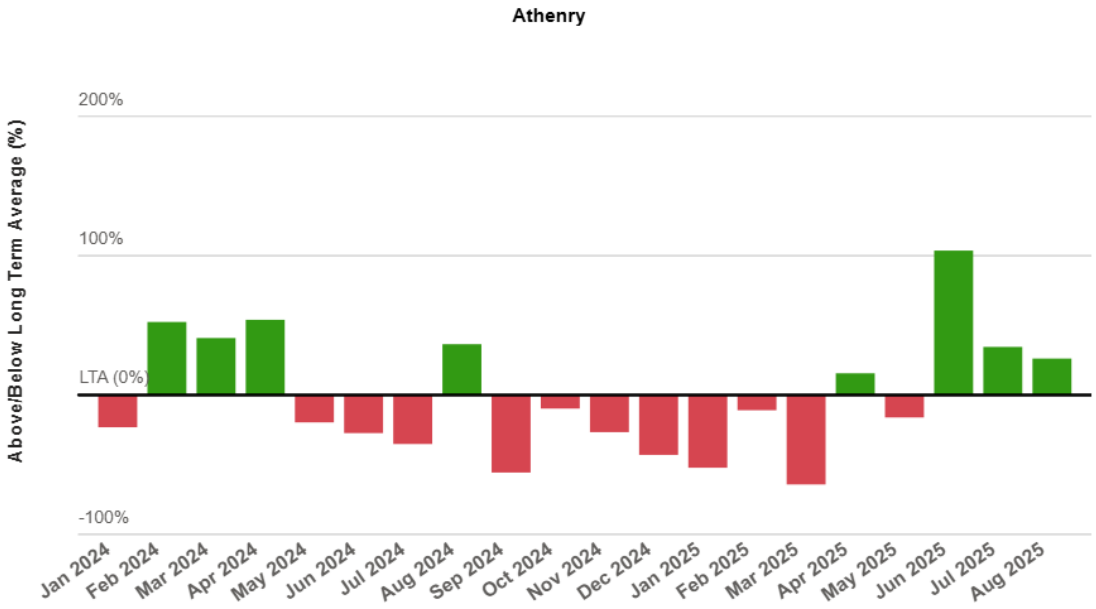


Figure 1 - Monthly Rainfall from Met Éireann's Athenry Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

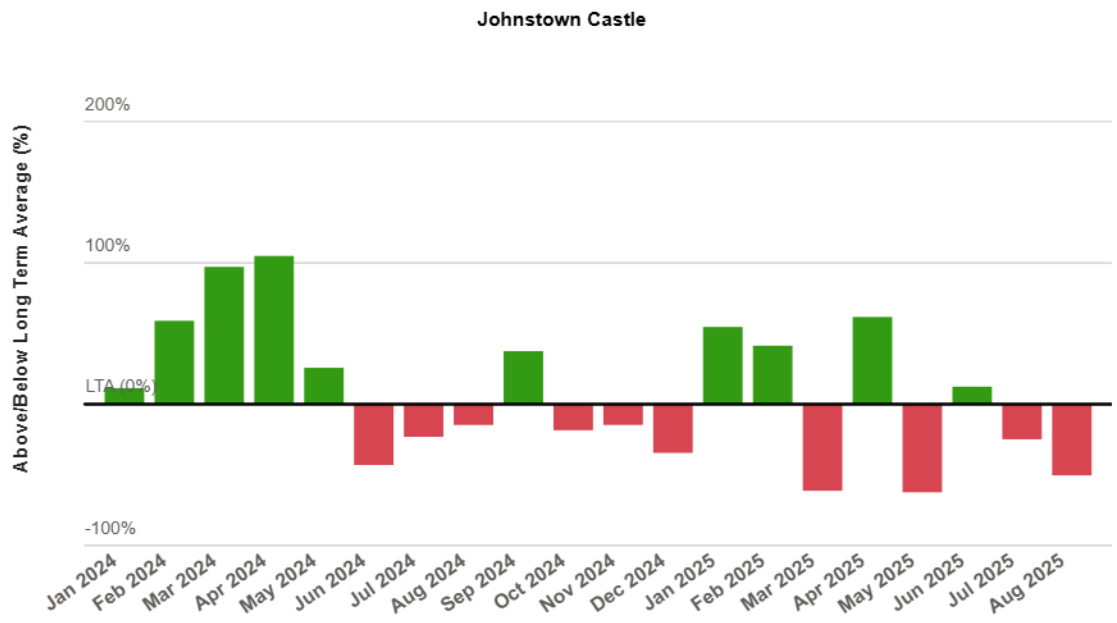


Figure 2 - Monthly Rainfall from Met Éireann's Johnstown Castle 2 Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

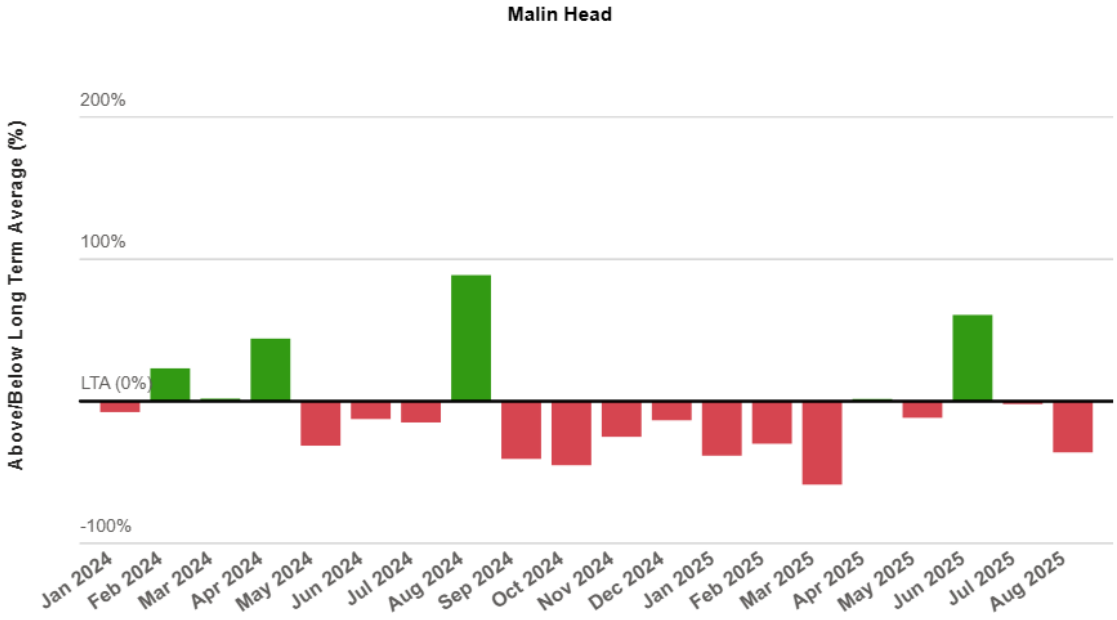


Figure 3 - Monthly Rainfall from Met Éireann's Malin Head Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

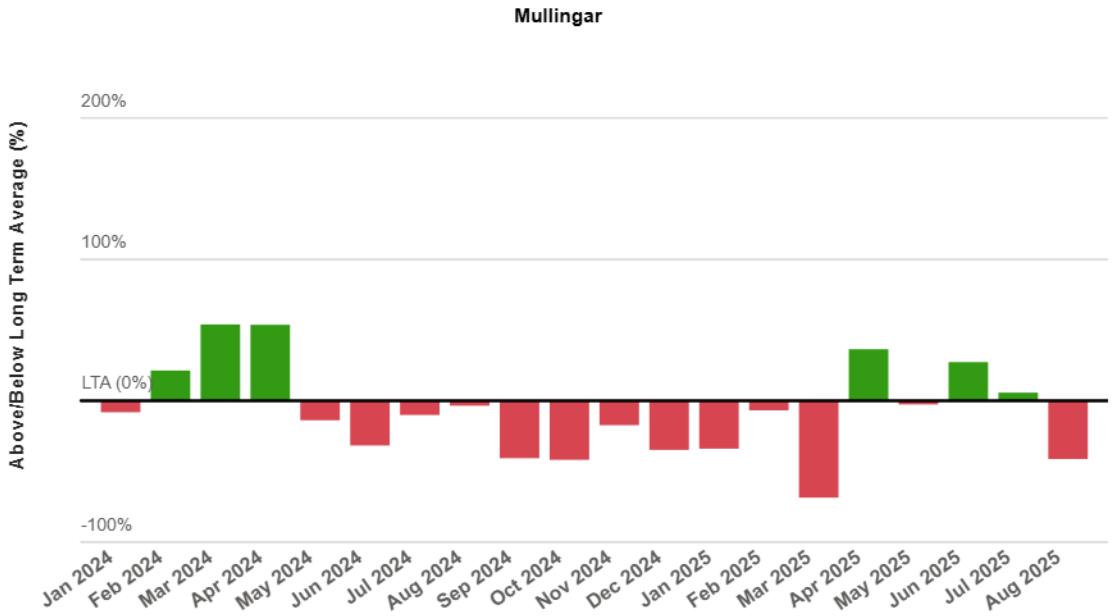


Figure 4 - Monthly Rainfall from Met Éireann's Mullingar Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

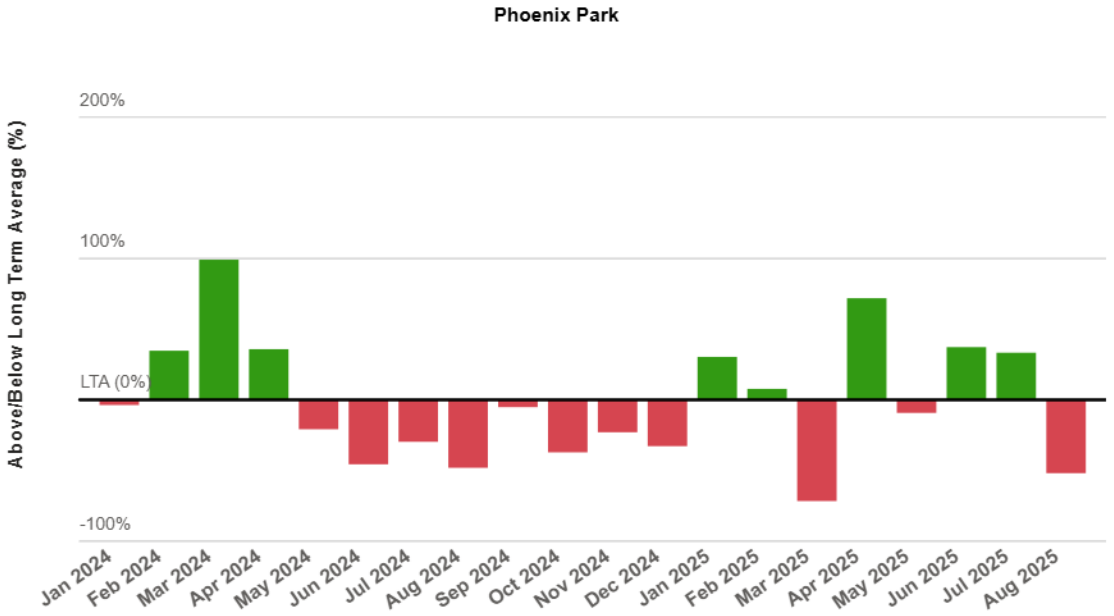


Figure 5 - Monthly Rainfall from Met Éireann's Phoenix Park Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

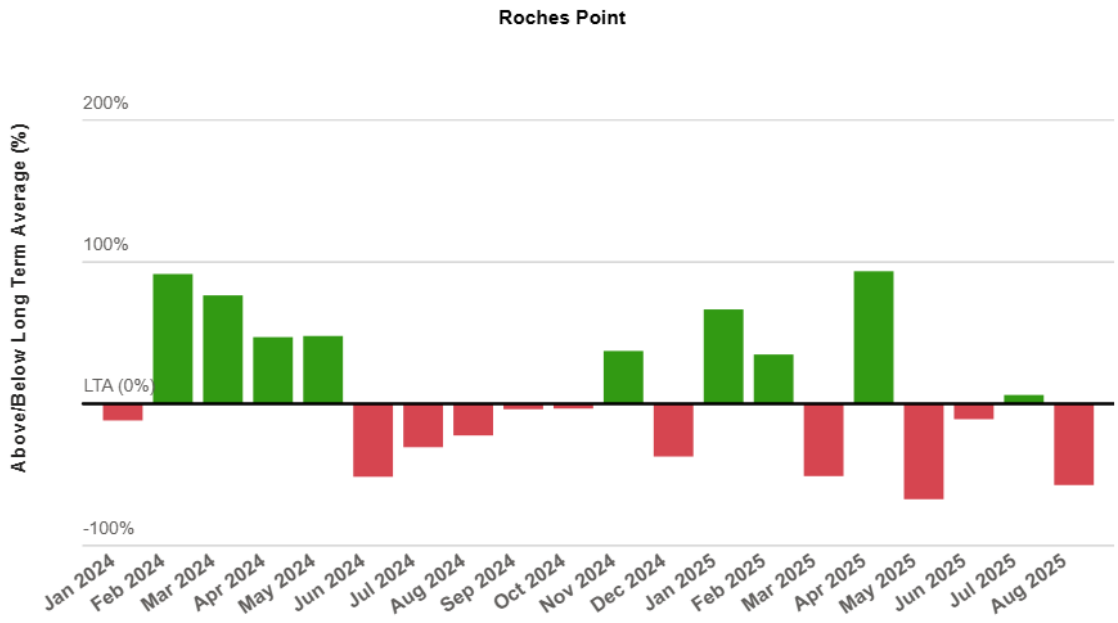


Figure 6 - Monthly Rainfall from Met Éireann's Roches Point Weather Station, as a Percentage (%) of the Long Term Average for Each Month, between January 2024 and August 2025.

Based on this data, it can be determined that:

- The majority of Ireland has experienced drier than average conditions since May 2024.
- The Southern and Eastern Region of Ireland (represented by Met Éireann's Roches Point, Johnstown Castle, and Phoenix Park stations) have seen:
    - A drier than normal winter in 2024
    - Heavier than normal rainfall in January & February, largely due to Storm Éowyn which occurred at the time.
    - A Wetter than normal April and June, following drier and warmer than normal conditions in March and April.
    - A drier and warmer than normal August
- West of Ireland (represented by Met Éireann's Athenry Station) saw:
    - Drier than normal conditions since August 2024
    - A particularly dry march, however contrary to the remainder of Ireland saw relatively little rainfall in April, with April being close to the normal.
    - June was particularly wetter than average with almost double the average rainfall for the month
    - July and August, contrary to the remainder of Ireland were on-par with the Long term average
- The Midlands and North West regions of Ireland (represented by Met Éireann's Mullingar and Malin Head stations respectively) have seen drier than normal conditions since May 2024, with some heavier than normal

rainfall in April and June, however this was offset with significantly lower than normal rainfall in March and August 2025.

With this reduced rainfall, there could potentially be a range of difficulties across our national water supplies, even without an increase in demand; these issues could include: issues with water availability, difficulty in getting water into treatment facilities, difficulty in treating water due to changes in raw water characteristics leading to potential water quality issues, and insufficient supply to meet increasing demand. It is considered likely that these issue will persist until broken by significant rainfall, potentially extending into causing problems in the drier months next year if there is insufficient rainfall towards the end of 2025.

2.1.2. Drought Indicators

Uisce Éireann has developed Appendix E Drought Planning under the National Water Resources Plan Framework Plan (NWRP). Appendix E of this plan outlines drought indicators that Uisce Éireann uses to track current weather conditions in relation to drought. Using these indicators, we identify triggers for action as we enter drought periods and develop potential actions that can be used to maintain water supply (where possible) during these conditions.

Uisce Éireann's indicator uses the Standardized Precipitation Index (SPI) method, advocated by the World Meteorological Organisation. This indicator has been developed for representative sites across the country and is produced monthly by Met Éireann. It compares precipitation to long-term historical precipitation data for the specific period of the year.

SPI is a normalised index representing the probability of occurrence of an observed rainfall amount when compared with data for a long-term reference period, at a given location. Negative SPI values represent a rainfall deficit, moving towards drought, whereas positive SPI values indicate rainfall surplus. The larger the negative SPI values, the more serious the measured event is.

SPI is produced for 1, 3, 6, 9 and 12 month (denoted SPI 1, 3, 6, 9, 12 respectively) accumulations. The Uisce Éireann's Drought Planning Appendix E proposes the following definitions, for drought stages rated to SPI.

- SPI 1 focuses on the short-term precipitation conditions over the past month; it rapidly reflects the immediate dryness that is relevant to soil moisture and irrigation needs. A negative SPI 1 value means that at that location, for the previous month, there has been less rainfall than normal, when compared to the same month when all historical rainfall records are considered. The lower the value (-1, -2, -3) the drier the

conditions. A single month of dry weather would only impact some of our sources, such as shallow springs or rivers where levels drop very quickly when there is no rain (predominantly flashy upland catchments).

- SPI 3 considers the past three months of precipitation. It provides a seasonal perspective that is relevant for agricultural planning and short-term water availability. A negative SPI 3 value means that for the previous three months at that location, there has been less rainfall than normal, when compared to the same three months when all historical rainfall records are considered. The lower the value (-1, -2, -3) the drier the conditions. Three months of dry weather would have an impact on the majority of our water sources, including rivers, lakes and some groundwater abstractions.
- SPI 6 analyses the last six months and offers a medium-term view relevant to streamflow and reservoir levels. A negative SPI 6 value means that at that location, for the previous six months, there has been less rainfall than normal when compared to the same six months when all historical rainfall records are considered. The lower the value (-1, -2, -3) the drier the conditions. Six months of dry weather would have an impact on all of our water sources, including rivers, lakes, reservoirs, impoundments and groundwater abstractions. A negative SPI 6 usually occurs when a dry summer follows a dry spring.
- SPI 9 measures precipitation anomalies over a nine-month timescale, which is particularly useful for assessing seasonal to medium-term droughts that may impact agriculture, water resources, and reservoir levels. A negative SPI 9 value indicates drier-than-normal conditions, while a positive value indicates wetter-than-normal conditions.
- SPI 12 analyses the precipitation over the last twelve months, providing a long-term perspective on precipitation patterns and highlights the inability to replenish sources like major water storage and long-term ecological conditions. A negative SPI 12 value means that at that location, for the previous twelve months, there has been less rainfall than normal when compared to the historical record. Continuous negative SPI 12 highlights the inability of water sources to replenish to their required/natural state.

A zero represents a near-normal precipitation rate. Negative scores are categorised as mildly dry (0 to -0.99), moderately dry (-1.0 to -1.49), severely dry (-1.5 to -1.99) and extremely dry (-2.0 to below) with increasing negative values signifying more severe droughts, all in relation to historical precipitation rates in the location they are measured. Conversely, positive scores indicate mildly wet

(0 to 0.99), moderately wet (1.0 to 1.49), very wet (1.5 to 1.99), and extremely wet (2.0 and above) precipitation conditions.

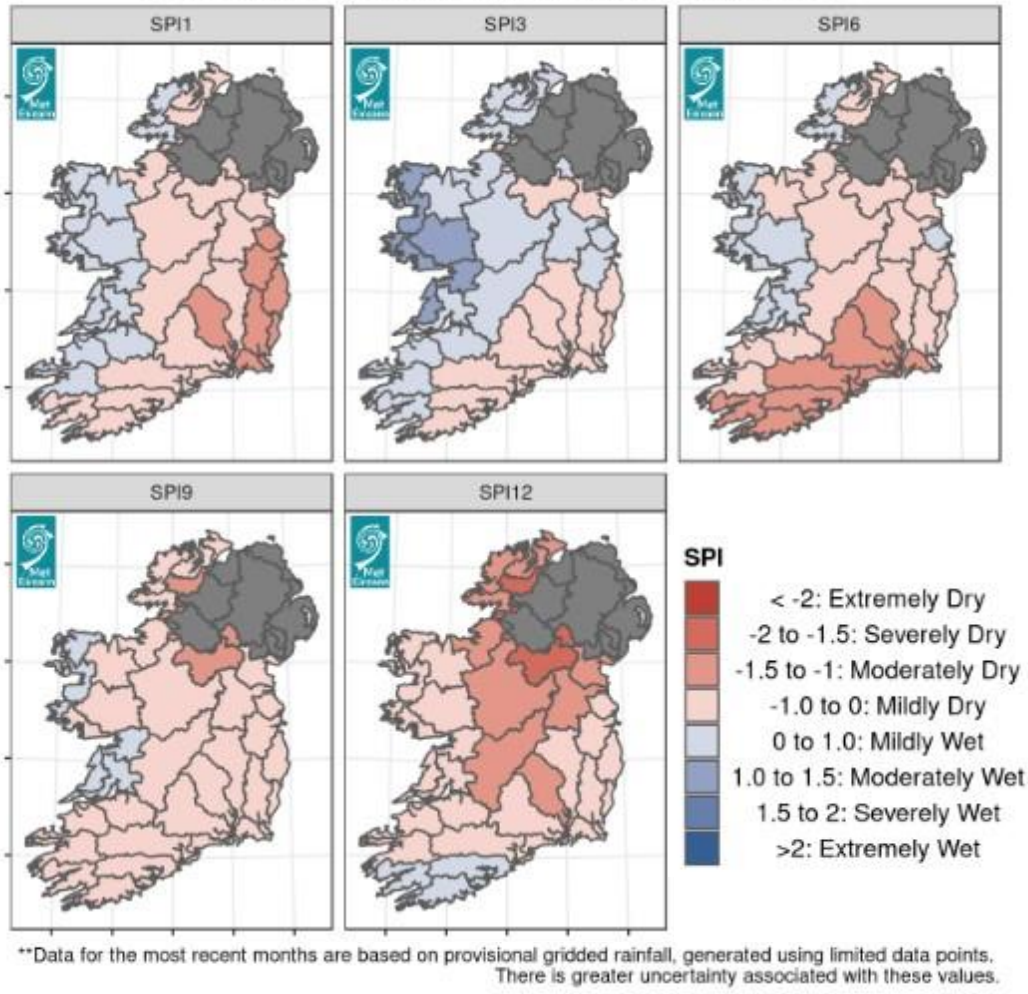


Figure 7 - SPI Index Value maps for Ireland as of August 2025

Figure 7 above shows SPI index values maps for Ireland for August 2025 indicating regional rainfall discrepancy over the last month (SPI 1) where parts of the West coast of Ireland shows as 'Mildly Wet', Midlands region and parts of South East shows as 'Mildly Dry' and East and South East shows as 'Moderately Dry'. The past 3 months accumulations (June, July and August – SPI 3), namely the North West Region shows as 'Moderately Wet' in the figure above; the rest of the country shows as 'Mildly Wet' except the parts of South East and South West which shows as' Mildly Dry'. There has been regional variation in rainfall across the country in the past three months, with the North West being wet to the South being below average. The lack of rainfall the across the country in the winter, autumn and summer 2024 is demonstrated in SPI 6, 9 and 12 when the country shows 'Moderately Dry' to 'Mildly Dry'.

Summary: On review of Met Éireann forecasts, and drought indicators up to the end of August 2025, developed as part of Appendix E Drought Planning of the NWRP, evidence of significant continued low rainfall compared to historical norms have been identified in the North West, Midlands and Eastern Regions of the country. The lack of rainfall in August has led to a further decrease of lake levels in the region.

2.2. Supply Side Pressures

Uisce Éireann abstracts raw water from over 1,200 individual water sources, including lakes, rivers, streams, springs and groundwater aquifers. All of these sources are reliant on sufficient rainfall for recharge. In warm weather, water is consumed by plant transpiration (take-up for growth) and evaporation from open surfaces. Our data shows that this combination, along with lack of rainfall and continuous daily abstractions, has significantly depleted Lough Bane, Lough Colmcille, and Lough Owel. Most of our sources, surface water and groundwater sources, are below their normal levels / flows for this time of the year.

2.2.1. Surface Water and Groundwater Supplies

Some of Uisce Éireann's surface water and groundwater supplies are currently under pressure due to the lack of rainfall. The data and analysis detailed below provides context to these issues.

Figures 8 to 10 provide an overview of monthly daily mean River Flows, Lake Levels and Groundwater Levels and Spring Flow based on analysis of drought indicator data, produced by EPA/OPW hydrometric stations.

- Figure 8 shows the monthly daily mean river flows at 18 indicator stations, expressed as a percentage of their respective long-term averages (LTA). These flows are categorised based on a historical analysis of August monthly means. The data indicates that:
    - **0 stations** (0%) recorded flows that were *Exceptionally High, Notably High* or *Above Normal*.
    - **2 stations** (11%) were within the *Normal* range.
    - **1 station** (6%) was classified as *Below Normal*.
    - **6 stations** (33%) were *Notably Low*.
    - **9 stations** (50%) were *Particularly Low*.

  In August, **83% of stations** experienced river flows below normal levels, indicating widespread low flow conditions across the monitored sites.
- Figure 9 provides overview of lake levels across the country in August 2025, as monthly averages relative to historical monthly average levels. Of the 18 lake levels monitored, the data shows that:
    - **2 stations** (11%) of were *Exceptionally High (0), Notably High* (1) or *Above Normal (1)*.
    - **4 stations** (22%) were within the *Normal* range.
    - **5 station** (28%) was classified as *Below Normal*.

- **5 stations** (28%) were *Notably Low*.
- **2 stations** (11%) were *Exceptionally Low*.

In August, **67% of stations** experienced lake levels below normal, indicating widespread low surface water storage conditions across the monitored sites.

- Figure 10 provides an overview of Groundwater Levels in August 2025, relative to historic monthly groundwater levels for August. Of the 78 representative borehole sites for groundwater measure:
  - **15 stations** (19%) of GW levels were *Exceptionally High (0), Notably High* (7) or *Above Normal (8)*.
  - **16 stations** (21%) were within the *Normal* range.
  - **16 station** (21%) was classified as *Below Normal*.
  - **23 stations** (29%) were *Notably Low*.
  - **8 stations** (10%) were *Exceptionally Low*.

  In August, **60% of stations** experienced groundwater levels below normal, indicating widespread low groundwater conditions across the monitored sites.

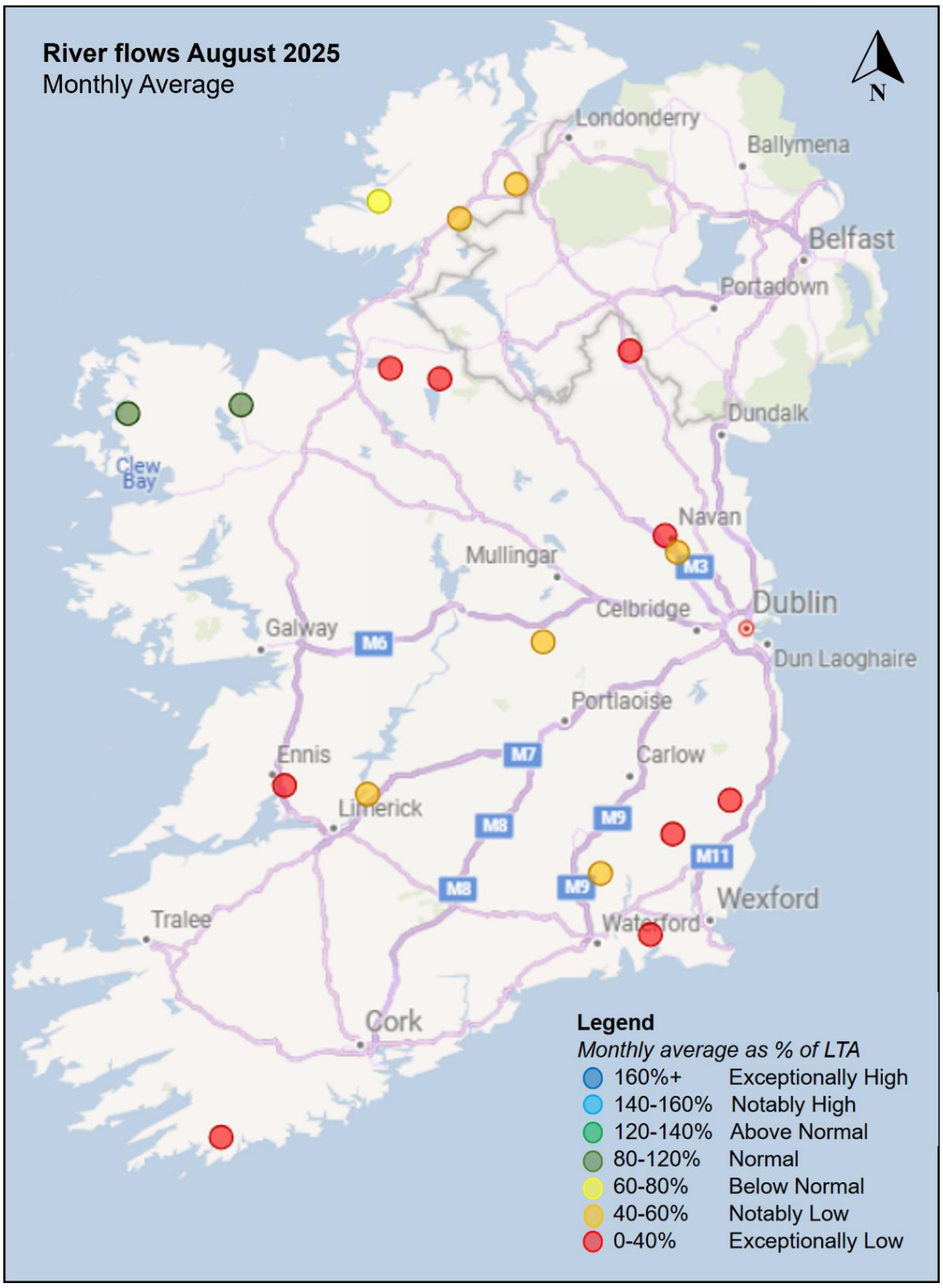


Figure 8 - River Flows as of August 2025

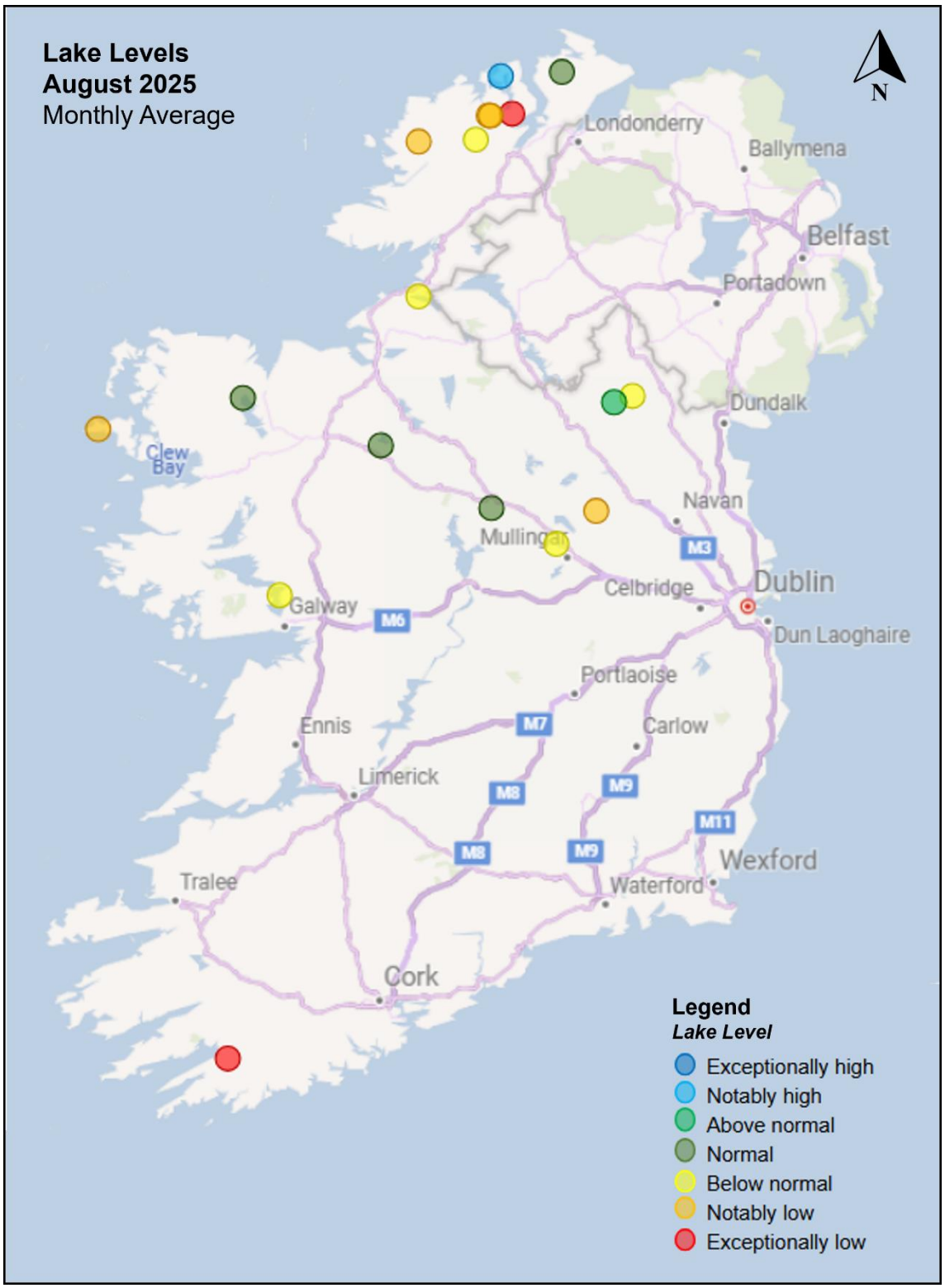


Figure 9 - Lake Levels as of August 2025. Level class based on Weibull ranking, with lower ranks indicating lowest lake levels on record for selected month.

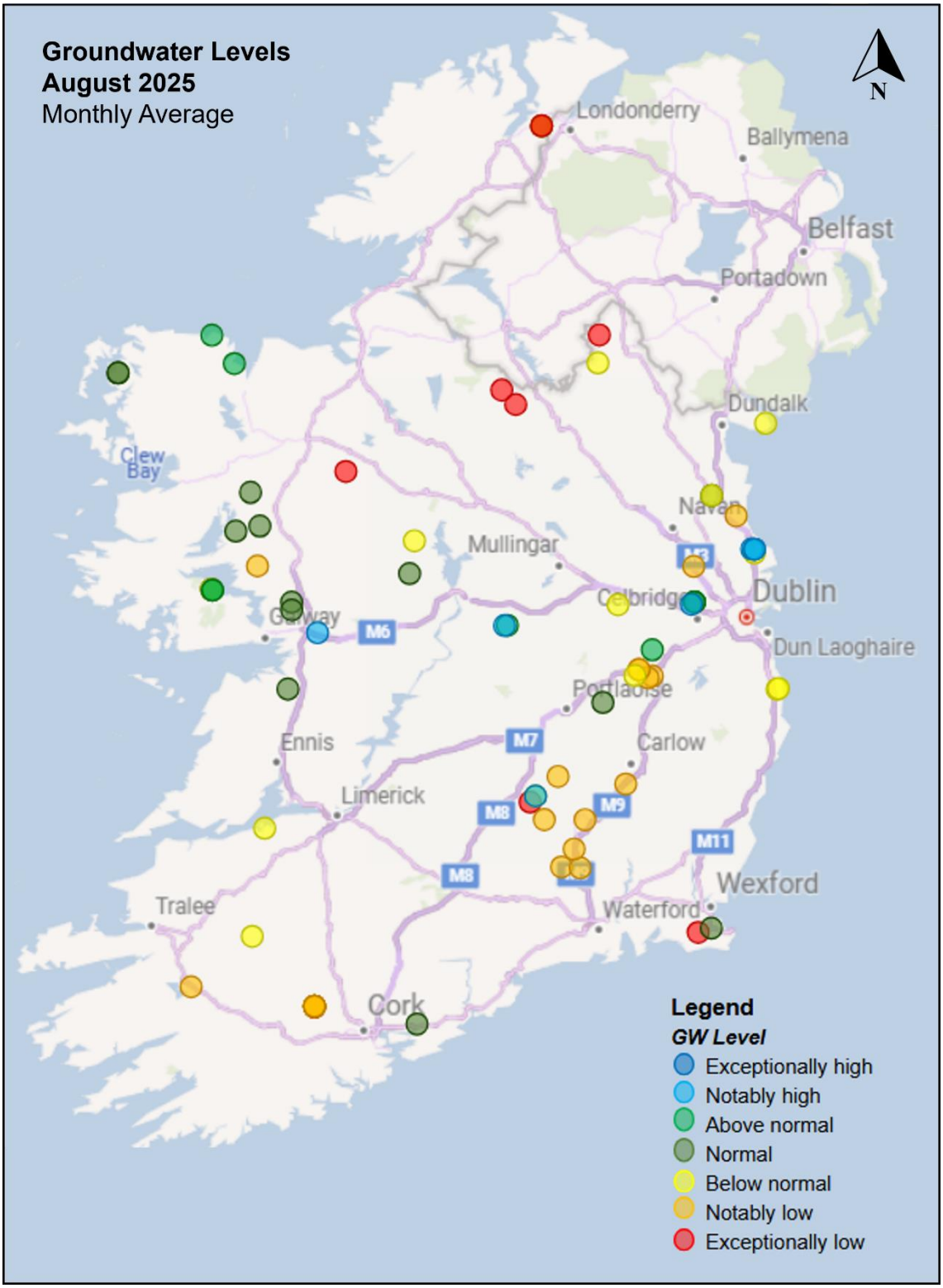


Figure 10 - Groundwater Levels as of August 2025. Level class based on Weibull ranking, with lower ranks indicating lowest GW levels on record for selected month.

With continued below average rainfall from January 2024, including in July and August 2025, a majority of surface and groundwater sources are struggling to replenish. Monitoring data shows that river flows, lake levels, and groundwater levels were below normal at the majority of sites across the country for August 2025, with many classified as notably low or exceptionally low. The maps in Figure 8-Figure 10 illustrate regional variation, with the midlands, southwest, and eastern areas showing the most widespread low levels. While river flows can recover quickly following rainfall, lakes and groundwater systems require sustained above-average rainfall over longer periods to recharge. The current conditions indicate that these slower-responding sources remain under pressure.

Low water levels across surface and groundwater systems have implications for both water availability and environmental health. Reduced flows and storage can lead to higher water temperatures and lower oxygen levels, which affect aquatic ecosystems. Groundwater stress also poses risks to public and agricultural water supplies, particularly in areas reliant on borehole abstraction. In summary:

- For groundwater supplies, as these water sources are slow to recover, effects of the current drought or near drought conditions may impact these sources for longer, potentially up to a 12 month period.
- Many water bodies support multiple pressures (both abstractions & discharges), including those for agricultural and other purposes such that a focus on individual water schemes within particular regions does not address the holistic environment of the waterbody.
- Lower flowrates in rivers and longer residence times in lakes imposes increased environmental stress on water bodies, impacting the assimilative capacity of these water bodies to cope with wastewater and other discharges, with increased risks to the aquatic environment and ecology.

At present Uisce Éireann is tracking operational performance in Kells/Oldcastle, Milford, and Mullingar in the context of drought indicators. As of the 4th of September, the lake levels at Lough Bane, and Lough Colmcille are at their lowest levels recorded for this time of the year. These lake levels are continuously monitored by Uisce Éireann's Operations staff.

Given the duration of the dry spell it will take a significant period of time for water levels at our sources to return to normal even if weather patterns return to normal. There is a significant risk to supply if we continue to experience dry weather through the Autumn. Therefore, it is essential that Uisce Éireann takes a prudent

approach at present in order to conserve supplies and ensure that we are able to maintain supplies throughout the late summer and autumn period.

I am aware that in order for a prohibition order to be made, Uisce Éireann must form the opinion that a serious deficiency of water available for distribution exists or is likely to exist.

Summary: On review of EPA / OPW hydrometric stations, evidence of low water levels at our surface water and groundwater sources has been identified in in the Northwest and East of the country. Given the prolonged nature of the dry spell, significant rainfall will be required for our raw water sources to recover. These factors indicate a serious deficiency of raw water availability which has impacted water supplies in the area and is likely to further impact the areas going forward.

2.3. Kells/Oldcastle Regional Water Supply (Lough Bane)

2.3.1. Background

The Kells-Oldcastle Regional Water Supply is supplied from two water treatment plants, Clavin's Bridge Water Treatment Plant (which sources its water from the River Blackwater) and Lough Bane Water Treatment Plan (which sources its water from Lough Bane). The Kells-Oldcastle Regional Water Supply supplies water to nearby locations such as Kells, Oldcastle, Crossakeel, Carlanstown with a population of approximately 12,000 people.

Lough Bane is situated on the Meath-Westmeath border within the Boyne catchment, approximately 10km south of Oldcastle, Co. Meath. It is a complex groundwater fed lake, and flows out to the River Deel (Boyne). Additionally, it is one of three lakes, along with Lough Glass and Lough Glass North, to make up the Lough Bane and Lough Glass Special Area of Conservation. This system of lakes is situated in a shallow valley that occurs at the headwaters of the River Deel, with the main outflow at the south-east end of Lough Bane.

2.3.2. Lough Bane Lake Levels Analysis

Figure 11 below shows a comparison of daily average lake levels during 2024 and 2025, within known percentile ranges for all available years of data (explained in Table 2 below), since 2016.

Table 2. Lake level percentile bands.

Percentile Level	Explanation
Above Normal	30%tile < Daily Average Level < 10%tile
Normal	70%tile < Daily Average Level < 30%tile
Below Normal	95%tile < Daily Average Level < 70%tile
Particularly Low	Daily Average Level < 95%tile

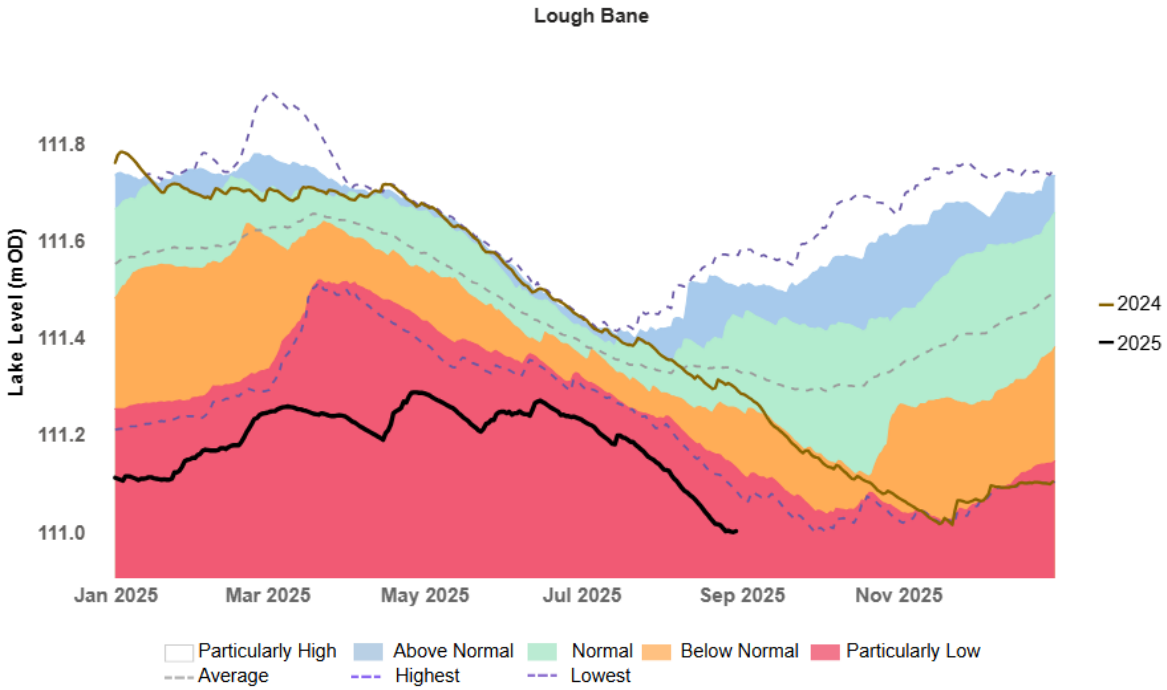


Figure 11 Lake levels (mOD) at Lough Bane during 2024 and 2025 compared to level percentiles for all available data (since 2016).

Figure 11 demonstrates that lake levels at Lough Bane are lower than previously recorded at this time of year and it is expected that water levels will now start to decrease based on the typical trend for this time of year.

This downward trend is largely due to the lack of rainfall in the area since May 2024, as shown in Figure 4 - Monthly Rainfall for Met Éireann's Mullingar Weather Station, Section 2.1.1 Met Eireann Data.

As Lough Bane is primarily fed through rainfall and groundwater, it takes a longer time to replenish itself compared to other types of water sources, and is very sensitive to repeated drawdowns.

Thus, Lough Bane needs both additional rainfall and a reduction in water demand in order for lake levels to recover.

2.3.3. Actions Taken by Uisce Éireann to address Supply Demand Balance in Kells/Oldcastle

Uisce Éireann is closely monitoring the demand and Lough Bane lake levels and has taken a number of steps to reduce demand and supplement Lough Bane from nearby supplies to allow for lake levels to recharge:

- Monitoring of lake levels at Lough Bane on daily basis.

Press Releases

- 25th April 2025 – Uisce Éireann is appealing to customers supplied by the Kells/Oldcastle Water Supply to conserve water to protect the supply.
- 12th June 2025 - Water Conservation Order extended for three supplies in Counties Meath, Westmeath and Donegal
- 12th June 2025 - Water Conservation Order for Kells/Oldcastle Public Water Supply remains in place
- 18th July 2025 - Uisce Éireann Thanks the Public for Their Support and Urges Continued Water Conservation
- 31st July 2025 - Water Conservation Order for Kells/Oldcastle Public Water Supply remains in place

Website and Social Media Campaigns

- All press releases relating to conservation campaigns at Kells/Oldcastle were published on water.ie on same date as issued to media
- Summer Water Conservation campaign launched 10th July 2025.

Summary: There is evidence of decreased raw water availability from Lough Bane due to lack of rainfall over the past months in the area and there is a high risk that there will be a serious deficiency of water available for distribution if left unchecked. The effectiveness of the previous Water Conservation Orders introduced by Uisce Éireann in 2018, 2020 and 2022 in reducing demand and securing water supplies has been shown. It is now of extreme importance to take steps to suppress water demand for non-essential purposes across the Kells/Oldcastle area to allow water levels in Lough Bane recover and to ensure we can maintain supplies throughout autumn.

2.4. Milford Regional Water Supply (Lough Colmcille)

2.4.1. Background

Milford is a town and townland in County Donegal, located approximately 15km north of Letterkenny which obtains its supply from Milford Water Treatment Plant. Milford Water Treatment Plant also supplies water to nearby locations such as Carrowkeel, and Ramelton, providing for approximately 6,000 customers. Lough Colmcille is the source for Milford Water Treatment Plant. Lough Colmcille is a natural rain-fed lake, located in a mountain hollow approximately 1.5km east of Milford town.

2.4.2. Lough Colmcille Lake Levels Analysis

In order to get a better understanding of the situation at Lough Colmcille, a hydrological analysis was conducted. Figure 12 below shows a comparison of daily average lake levels during 2024 and 2025, within known percentile ranges for all available years of data (explained in Table 3 below), since 2008.

Table 3. Lake level percentile bands.

Percentile Level	Explanation
Above Normal	30%tile < Daily Average Level < 10%tile
Normal	70%tile < Daily Average Level < 30%tile
Below Normal	95%tile < Daily Average Level < 70%tile
Particularly Low	Daily Average Level < 95%tile

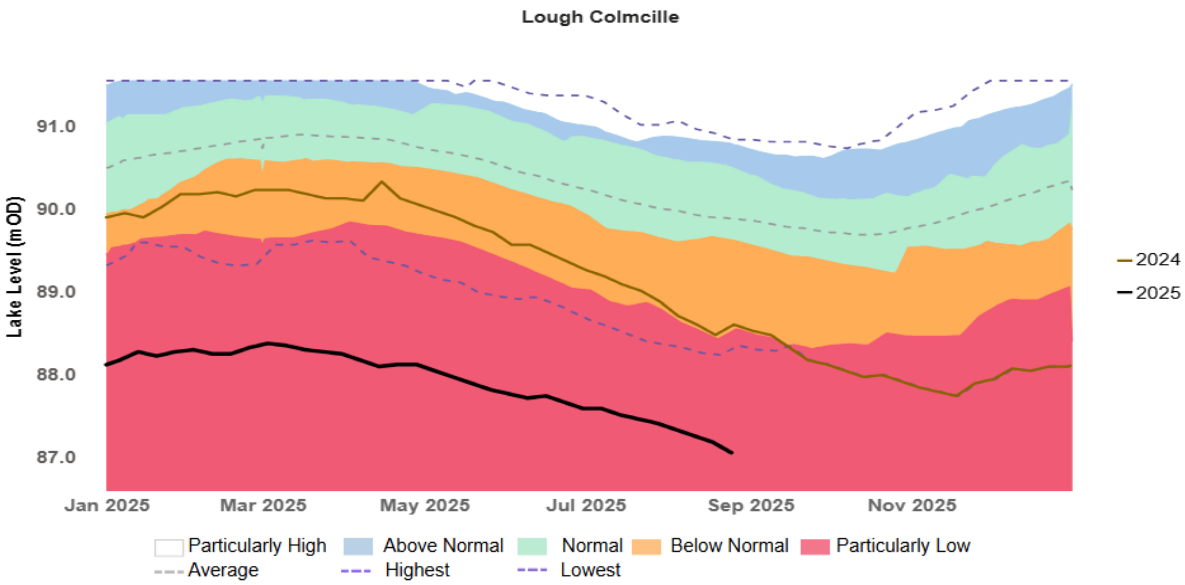


Figure 12. Lake levels (mOD) at Lough Colmcille during 2024 and 2025 compared to level percentiles for all available data (since 2008).

Figure 12 demonstrates that 2025 lake levels at Lough Colmcille are lower than previously recorded at this time of year; based on typical trends for this time of year, it is expected that water levels will continue to decrease further.

The lake level decreases are likely caused by the lack of rainfall in the area over previous months, combined with an increase in demand from Milford Water Treatment Plant (also see 2.4.3. Actions Taken by Uisce Éireann to address Supply Demand Balance in Milford). This has led to a knock-on effect, where significant drawdown from 2024 has led to even lower lake levels in 2025. As Lough Colmcille is a rain-fed source, it takes a longer time to replenish itself and is very sensitive to repeated drawdowns, as it has a relatively small catchment it will take a significant amount of rainfall for levels to return to the normal range. In short, Lough Colmcille needs both additional rainfall and a reduction in water demand in order for levels to recover.

2.4.3. Actions Taken by Uisce Éireann to address Supply Demand Balance in Milford

There has been a noticeable increase in water demand in Milford over the past couple of years as a result of growth in the area. Uisce Éireann is progressing a number of projects to increase supply to Milford and the greater Letterkenny area, however these projects will take a number of years to deliver.

Uisce Éireann is closely monitoring the water demand and Lough Colmcille lake levels and has taken a number of steps to reduce demand and supplement Milford from nearby supplies to allow for the lake levels to replenish:

- Monitoring of lake levels at Lough Colmcille on a daily basis.
- Active leakage reductions and finding and fixing critical leaks in the water network.
- Augmenting Milford Water Treatment Plant supply from nearby Water Treatment Plants to reduce abstraction from Lough Colmcille to allow for the lake to replenish.

Press Releases

- 2nd October 2024, A notice to customers in the Ramelton and Milford areas to conserve water.
- 15th November, 2024: Uisce Éireann appeals to customers in Ramelton and Milford to conserve water
- 1st April, 2025: Uisce Éireann appeals to customers in Ramelton and Milford to conserve water
- 10th April 2025, Uisce Éireann appeals to customers in Ramelton, Milford, and Kerrykeel to conserve water
- 16th April 2025, An appeal to customers in Ramelton, Milford, and Kerrykeel to conserve water over Easter
- 25th April 2025 – Uisce Éireann is appealing to customers supplied by the Ramelton, Milford, and Kerrykeel Water Supply to conserve water to protect the supply.
- 13th May 2025 - Water supplies in Letterkenny, Buncrana, Ballybofey, Stranorlar, Carrigart, Downings and surrounding areas are under pressure due to high demand.
- 12th June 2025 - Water Conservation Order extended for three supplies in Counties Meath, Westmeath and Donegal
- 13th June 2025 - Uisce Éireann reminds customers that a Water Conservation Order for Milford Regional Public Water Supply remains in place
- 18th July 2025 - Uisce Éireann Thanks the Public for Their Support and Urges Continued Water Conservation
- 31st July 2025 - Uisce Éireann extends Water Conservation Order for Milford Regional Public Water Supply

Media Interviews

- 15th November 2024, Uisce Eireann urges people to conserve water in Ramelton and Milford
- 11th April 2025, Highland Radio, Water restrictions may be necessary in Ramelton, Milford and Kerrykeel – Uisce Eireann

- 9th July 2025, Highland Radio, Uisce Eireann continues to appeal to people in Donegal to be mindful of water use

Website and Social Media Campaigns

- All press releases relating to conservation at Ramleton/Milford/Kerrykeel were published on water.ie on the same date that they were issued to media.
- Summer Water Conservation campaign launched 10th July 2025.

Elected Representatives

- All press releases relating to water conservation appeals for customers served by Lough Colmcille were circulated to Donegal's Oireachtas members and councilors in the Letterkenny-Milford MD via the Local Representative Support Desk.

Despite Uisce Éireann's operational actions and communications campaigns, raw water availability at Lough Colmcille is decreasing with the lack of rainfall. Uisce Éireann must take all reasonable steps to ensure that we can conserve water to reduce risks to the public water supply and ensure that we can limit any potential impact on the environment.

Summary: There is evidence of decreased raw water availability from Lough Colmcille due to lack of rainfall over the past months in the area. An extensive media campaign has been ongoing since October 2024, when the communication to conserve water was issued. The effectiveness of the previous Water Conservation Orders in 2018, 2020 and 2022 in reducing demand and securing water supplies has been shown. It is now of extreme importance to take steps to suppress water demand for non-essential purposes across Milford and protect this supply to allow water levels in Lough Colmcille recover and to ensure we can maintain supplies throughout autumn.

2.5. Mullingar Regional Water Supply (Lough Owel)

2.5.1. Background

Mullingar is the county town of County Westmeath, located in the Midlands Region, and is the home of Portloman Water Treatment Plant. Aside from Mullingar town, Portloman Water Treatment Plant also supplies water to Ballynacarrigy, Moyvore, Ballymore, Moate, Rathowen, Streete, Rathconrath, Killucan, Coralstown, Kinnegad, Milltownpass, Tyrrellspass, Kilbeggan, Ballinagore, Gaybrook, Horseleap. Approximately 50,000 customers are being supplied by Mullingar Regional Water Supply.

Mullingar Regional Water Supply is supplied from Lough Owel, situated at the top of the River Brosna catchment which is part of the River Shannon. It is a rain and groundwater fed lake with a small catchment and a complex hydrology. This source is designated as Special Area of Conservation, meaning that consideration must be given to the conservation objectives which are under threat from abstraction.

Lough Owel is also the main source of supply for the Royal Canal. The Royal Canal was historically developed as navigation routes in the 19th century connecting the River Shannon to Dublin. Today the Royal Canal has been restored and developed as a public amenity and is of great significance to tourism and recreation in the Eastern and Midlands Region, as well as serving as wildlife corridors. The Royal Canal was originally designed with Lough Owel as its primary source of water, and its location and level are critical to its operation and viability.

2.5.2. Lough Owel Lake Levels Analysis

Figure 13 below shows a comparison of daily average lake levels during 2024 and 2025, within known percentile ranges for all available years of data (explained in Table 4 below), since 1979.

Table 4. Lake level percentile bands.

Percentile Level	Explanation
Above Normal	30%tile < Daily Average Level < 10%tile
Normal	70%tile < Daily Average Level < 30%tile
Below Normal	95%tile < Daily Average Level < 70%tile
Particularly Low	Daily Average Level < 95%tile

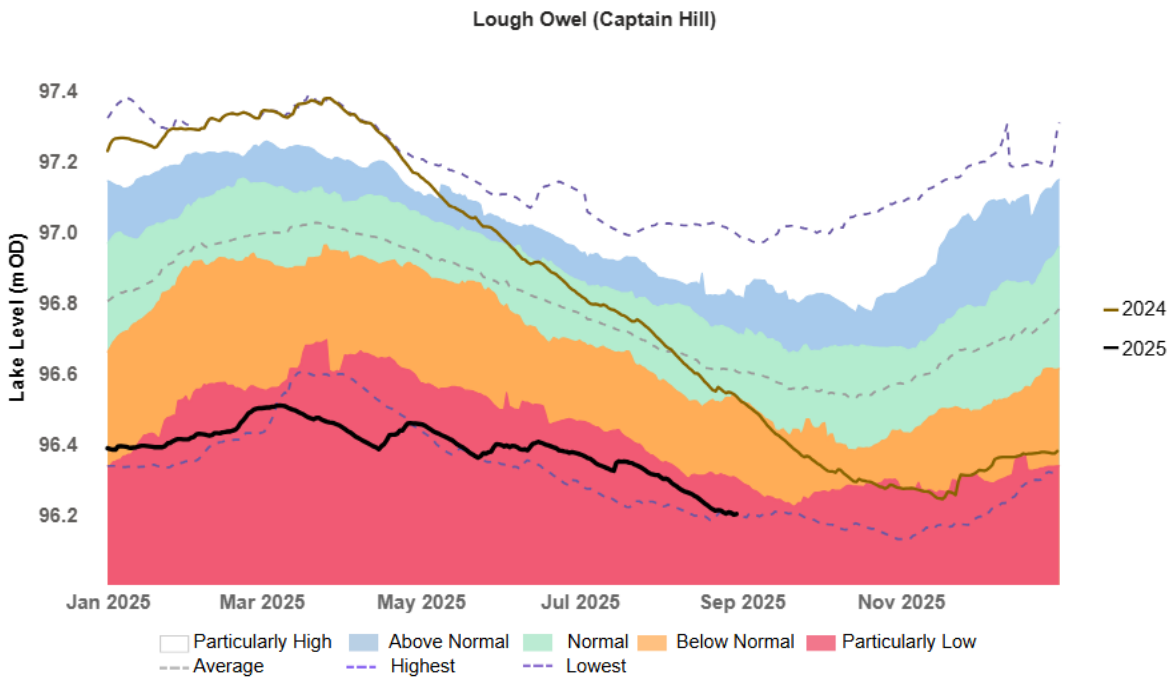


Figure 13 - Lake levels (mOD) at Lough Owel during 2024 and 2025 compared to level percentiles for all available data (since 1979).

Figure 13 demonstrates that 2025 levels at Lough Owel are particularly low for this time of year and it is expected to decrease further, based on the typical trend for this time of year.

This is caused by the lack of rainfall in the area over previous months, especially since May 2024 as previously shown in Figure 4 - Monthly Rainfall for Met Éireann's Mullingar Weather Station, Section 2.1.1 Met Eireann Data. As Lough Owel is a rain and groundwater fed source, it takes a longer time to replenish than other types of water sources, and is very sensitive to repeated drawdowns; this leads to a knock-on effect, where significant drawdown from 2024 has led to even lower lake levels in 2025. Thus, Lough Owel needs both additional rainfall and a reduction in water demand in order for levels to recover.

2.5.3. Actions Taken by Uisce Éireann to address Supply Demand Balance in Mullingar

Uisce Éireann is closely monitoring the demand in Mullingar and Lough Owel lake levels and has taken a number of steps to reduce demand to allow for Lough Owel to replenish:

- Monitoring of lake levels at Lough Owel on a daily basis.
- Active leakage reductions and finding and fixing critical leaks in the water network.
- Working closely with Waterways Ireland to reduce demand from Lough Owel for navigation in the Royal Canal.

Press Releases

- 12th November 2024, People asked to conserve water as Lough Owel water levels drop
- 15th April 2025, Uisce Éireann is appealing to customers in Mullingar and surrounding areas to conserve water to help safeguard supply
- 25th April 2025 – Uisce Éireann is appealing to customers supplied by the Mullingar Water Supply to conserve water to protect the supply.
- 12th June 2025 - Water Conservation Order extended for three supplies in Counties Meath, Westmeath and Donegal
- 12th June 2025 - Water Conservation Order for the Mullingar Regional Water Supply remains in place
- 18th July 2025 - Uisce Éireann Thanks the Public for Their Support and Urges Continued Water Conservation
- 31st July 2025 - Water Conservation Order for the Mullingar Regional Water Supply remains in place
- 13th August 2025 - Regional Hospital Mullingar Joins National Effort to Conserve Water

Media Interviews

- 15th April 2025, Midlands 103 radio, Uisce Eireann Customers Urged to Conserve Water In Midlands Town
- 8th May 2025, Midlands 103 radio, Water Conservation Order in place for Mullingar
- 1st August 2025, Midlands 103 radio, Uisce Eireann Extends Westmeath Hosepipe Ban
- 15th August 2025, Midlands 103 radio, Uisce Éireann Appealing To Public To Conserve Water Due To Drought Status

Website and Social Media Campaigns

- All press releases relating to conservation at Mullingar were published on water.ie on same date as issued to media
- Summer Water Conservation campaign launched 10th July 2025.

Elected Representatives:

- All press releases relating to water conservation appeals for customers served by Lough Owel were circulated to all Westmeath Oireachtas members and councilors via the Local Representative Support Desk. Proactive outreach was undertaken to Oireachtas Members and Westmeath County Council Cathaoirleach.

Despite Uisce Éireann's operational actions and communications campaigns, raw water availability at Lough Owel is decreasing with the lack of rainfall. Uisce Éireann must take all reasonable steps to ensure that we can conserve water to reduce risks to the public water supply and ensure that we can limit any potential impact on the environment.

Summary: There is evidence of decreased raw water availability from Lough Owel due to lack of rainfall over the past months in the area. An extensive media campaign has been ongoing since November 2024, when the first water conservation notice was issued. The effectiveness of the previous Water Conservation Orders in 2018, 2020 and 2022 in reducing demand and securing water supplies has been shown. It is now of extreme importance to take steps to suppress water demand for non-essential purposes across Mullingar and protect this supply to allow water levels in Lough Owel recover and to ensure we can maintain supplies throughout autumn.

3. Outlook for the Month Ahead

The latest Met Éireann 4-week outlook for Ireland (issued 2nd September) notes that average temperatures, and changeable and unsettled rainfall conditions are predicted for Week 1 (8th – 14th September). For Week 2 (15th – 21st September) there is a slight signal for weather to be a bit more settled than the previous week as pressure increases. Rainfall amounts are forecast to be higher than average for the time of year in parts of the west and northwest, while elsewhere they are forecast to be average or below. There is a less clear signal for Week 3 (22nd – 28th September) but temperatures are likely to be around climatological average and rainfall totals are projected to be slightly above the seasonal norm. Week 4 (29th September – 5th October) is indicated to be more unsettled with above average rainfall predicted but temperatures likely to stay around seasonal average.

Due to the severely dry winter and early spring we have experienced across large parts of the country, several water supply sources have not refilled/ recharged as they would normally during the typical wet period. Based on this, lake sources such as Lough Bane, Colmcille, and Owel, entered the summer period in 2025 with levels starting significantly lower than normal for this time of year.

Based on the latest Met Éireann monthly outlook, rainfall conditions could return to normal and even above normal in the weeks ahead during the autumn. However, it is not likely that this predicted rainfall would be sufficient to put these lake sources in a notably better position as we move into the autumn period when the lakes would historically experience the lowest levels before the winter recharge.

Summary: The weather and climatic outlook would suggest that rainfall conditions could return to normal and even above normal in the weeks ahead during the autumn. However, it is not likely that this predicted rainfall amount would be sufficient to put these lake sources in a notably better position as we move into the autumn period when the lakes would historically experience the lowest levels before the winter recharge.

4. Additional Actions Required

In an effort to prevent or contain the extent of outages over the next weeks and months, Uisce Éireann proposes to exercise its powers under Section 56(16) of the Water Supply Act 2007 (as amended), to extend the order prohibiting certain water usage to cover the affected areas of Kells / Oldcastle (County Meath), Milford (County Donegal), and Mullingar (County Westmeath). The aim of such an order is to suppress demand – thus saving water – through the prohibition of certain non-essential activities for a specified period. It is proposed that the Order made under section 56(16) should provide for the prohibition of the following uses of water:

Use of water drawn through a hosepipe or similar apparatus for the purpose of:

I. watering a garden
II. cleaning a private motor-vehicle using a domestic hosepipe
III. cleaning a private leisure boat
IV. filling or maintaining a domestic swimming or paddling pool (except when using hand held containers filled directly from a tap)
V. filling or maintaining a domestic pond (excluding fish ponds)
VI. filling or maintaining an ornamental fountain (with the exception of such use for commercial purposes)
VII. filling or replenishing an artificial pond, lake or similar application.

These are identical to the prohibitions that were introduced in 2018, 2020 and 2022. In 2018, 2020 and 2022 such prohibitions, along with further water restrictions, were shown to moderate water demand from a peak of 15% above normal levels back to normal levels. The specific use prohibitions involve the prohibition of certain non-essential customer use and will help to ensure that all customers receive continuity of water supply over this difficult period, as far as possible.

These measures apply to both domestic and non-domestic users equally and are a more equitable and controlled way of suppressing demand compared to wide scale outages that tend to disproportionately impact certain areas of the network, or vulnerable users who have difficulty sourcing water.

It is my opinion that the proposed extension of the Order should be effective from the date it is made for a period of four weeks. The four week duration is reflective of the current condition of the sources, where the lake levels at Lough Bane, Lough Colmcille, and Lough Owel are at the lower extremes of historical conditions for this time of year, and the weather outlook forecasted above

average rainfall. Even if there is a return to average rainfall conditions, it will take a considerable period for some sources to replenish. On that basis it may be necessary to extend the duration of the proposed Order (or extend the scope of the proposed Order to additional parts of the country).

In order to enforce these powers, as per section 56(17) of the Water Services Act 2007 (as amended), Uisce Éireann must give public notice of its intention to make an order, and specify the period for which the order will remain in force, by publishing an advertisement in a newspaper and causing notification of the proposed Order to be broadcast on radio or television. Section 56(16) does not specify any notice period. Having regard to this, a reasonable notice period will be given. The notice period will give consideration to the extent and/or likelihood of the drought problem, the restriction of non-essential activities, and the fact that unless this action is taken and demand is not reduced, it is inevitable that there will continue to be a likelihood of serious deficiencies of water available for distribution, and potential widespread supply failure and large outages.

Continuous monitoring of the situation will be undertaken by Uisce Éireann, to ensure the specific use prohibitions order is only enforced for as long as is necessary.

5. Conclusion and Recommendation

At present (4th September 2025) the European Drought Observatory (EDO) classifies the majority of Ireland as under either Drought Watch, Drought Warning or Alert. This has been the case for much of the country since the start of the 2025, based on a significantly drier than average autumn and winter 2024/2025 period, following directly into an exceptionally warm and dry spring 2025 period and dry August.

Since early April 2025 Uisce Éireann has experienced a number of difficulties in relation to shortages in the public water supply, primarily due to the lack of rainfall over several months, followed by high temperatures and the corresponding drought conditions being experienced across the parts of the country.

In response to this dry period, Uisce Éireann announced a Water Conservation Order (WCO for the following public supplies, to safeguard the water supply over the summer:

- Kells/Oldcastle (Co. Meath), Milford (Co. Donegal), and Mullingar (Co Westmeath in Early May 2025, extending further until 16th September and proposing to extend further to the 13th October 2025.
- Co. Cork (Excluding Cork City), Co. Tipperary, Co. Waterford, and Co. Wexford from 26th July to 16th September.

Three sources in particular have reached a critical stage, namely: Lough Bane (Kells/Oldcastle supply, Co Meath), Lough Colmcille (Milford supply, Co Donegal), and Lough Owel (Mullingar supply, Co Westmeath). Lough Bane and Lough Colmcille are currently at the lowest level ever recorded for this time of year. While not at a record low yet, Lough Owel's lake level is very low for this time of the year. Under the current circumstances it will take a significant increase in rainfall over the coming months for water levels to recover to typical average levels. However, current weather forecast predictions do not indicate any significant period of prolonged rainfall in the near future. Met Éireann forecasts that an average to slightly above average amount of rainfall is predicted over the next four week across the country.

Existing water sources are already under severe pressure with water levels continuing to fall. Uisce Éireann has carried out practical measures to reduce demand for water in Kells/Oldcastle (Co Meath), Milford (Co Donegal), and Mullingar (Co Westmeath). A large media campaign on water conservation is ongoing, in an effort to reduce demand voluntarily. Despite our efforts, the

situation remains serious, and Uisce Éireann must take all reasonable steps to ensure that we can conserve water to reduce risks to the public water supply. Given that:

- water levels at Lough Bane, Lough Colmcille and Lough Owel are lower than previously recorded at this time of year and it is expected, based on the typical trend for this time of year, that water levels will now start to decrease for the Autumn period.
- it is considered that significant levels of rainfall over a prolonged period of time are required for these sources to recover,
- and, there is indication that an average to slightly above average amount of rain is forecast in the coming 4 weeks.

It is essential that a usage prohibition order is introduced now in Kells/Oldcastle supply, Co Meath; Milford supply, Co Donegal; and Mullingar supply, Co Westmeath to ensure that we can mitigate against the ongoing risk of failure in the public water supply later in the year.

It is proposed that the prohibition order should run for a period of four weeks from the date it is made so as to seek to allow raw water sources to recover. If it is possible to lift the proposed order (or lift the proposed order in certain areas of the Country) before the specified period expires, having regard to prevailing weather conditions, availability of water resources and reduction in demand, this will be done. Equally, it may be necessary to extend the specified period for the entire Country (or for specific areas of the Country) for a further period and/or to other water uses, should the prevailing conditions continue.

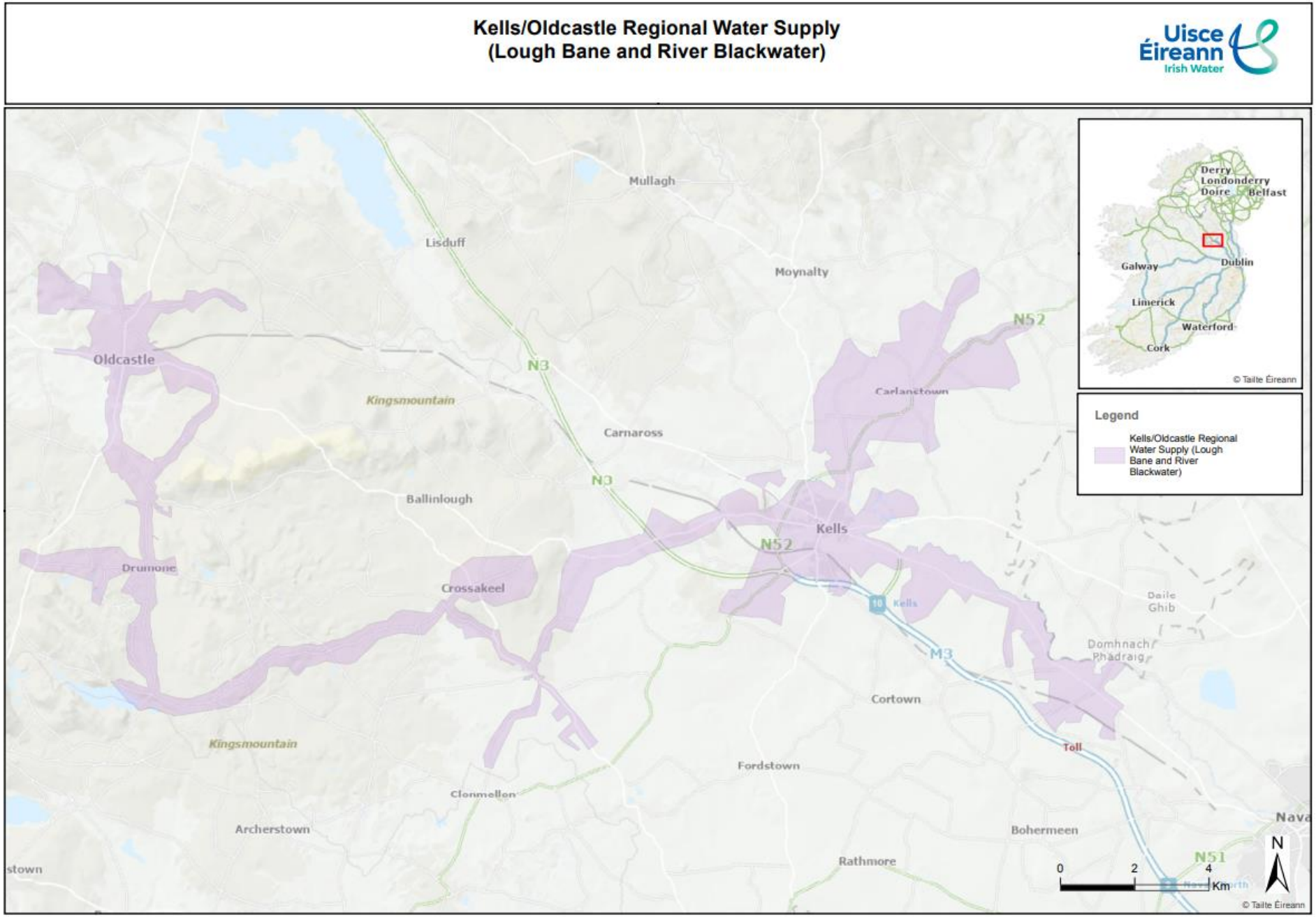
Recommendations:

- Seek board approval to immediately use powers under section 56(16) of the Water Services Act 2007 (as amended) to introduce
  - An order to prohibit certain water usage in the Kells/Oldcastle (Co Meath, Milford (Co Donegal), and Mullingar (Co Westmeath) areas, for a four-week period as from when the order is made. The non-essential high water use activities to be the subject matter of the order are as specified in section 5 above.
- To develop and advertise all necessary advertisements and notifications under section 56(17).
- To stipulate that these prohibitions be maintained for a period of 4 weeks as from the date of the order and that it is a criminal offence

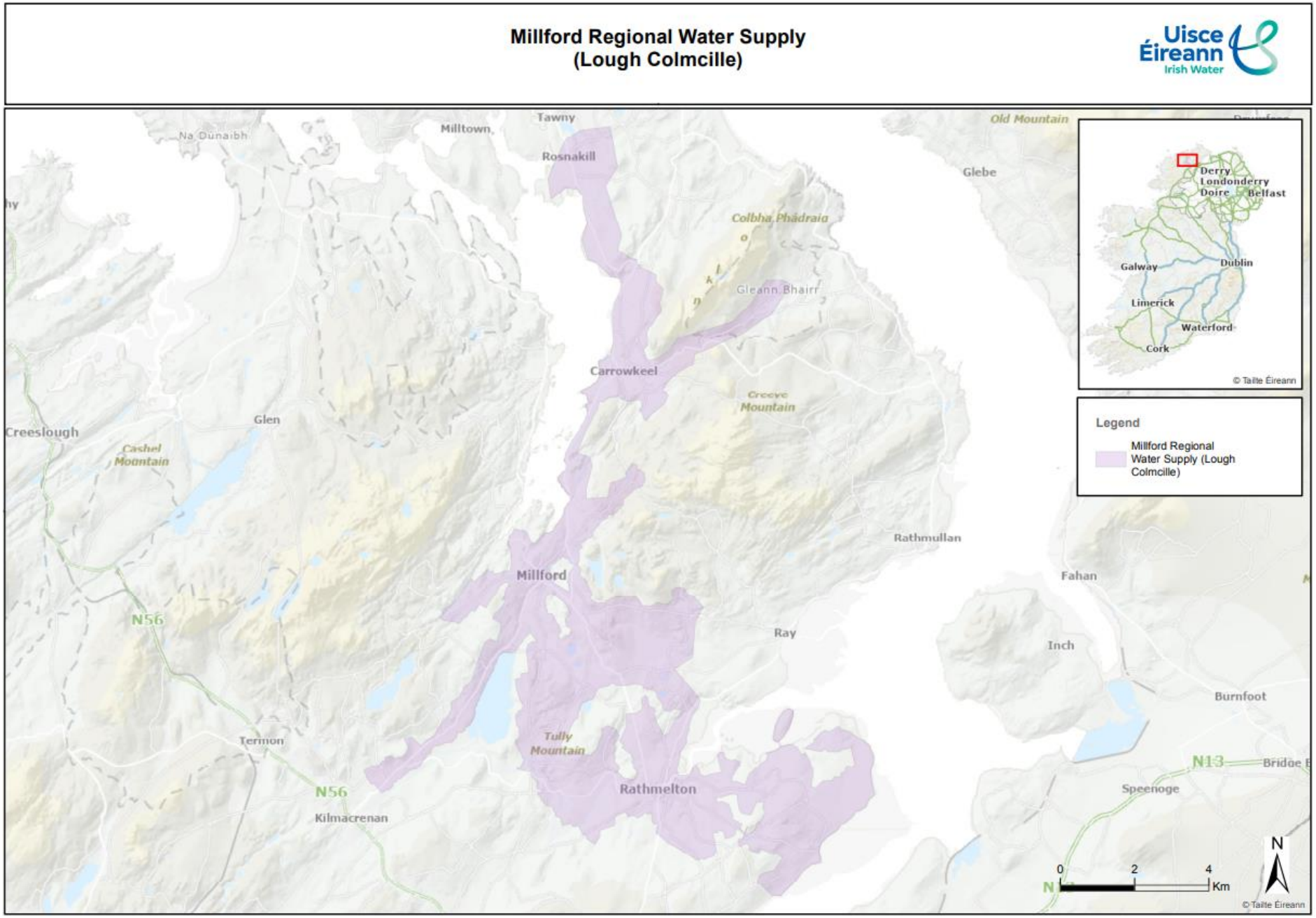
under section 56(18) not to comply with an order served pursuant to section 56(16).

- To apply these prohibitions in the Kells/Oldcastle (Co Meath), Milford (Co Donegal), and Mullingar (Co Westmeath) areas.

Appendix 1 – Kells/Oldcastle Regional Supply Map



Appendix 2 – Milford Regional Supply Map



Appendix 3 – Mullingar Regional Supply Map