

For the future of our environment

Water Scarcity Report

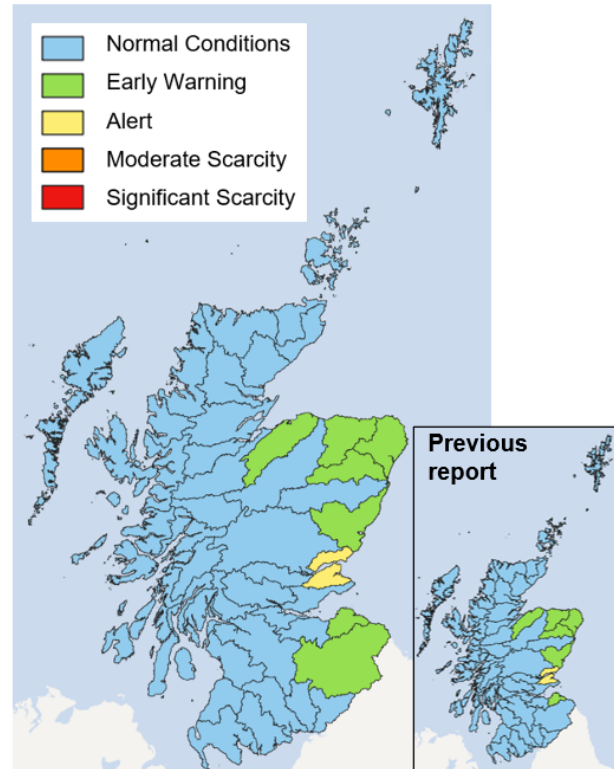
19th September 2024

The Tweed has been raised to Early Warning.

The Firth of Tay remains at Alert.

The rest of the country remains at Early Warning or Normal Conditions.

Water scarcity levels - This week



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Figure 1: Larger map of Scotland showing this week's water scarcity levels. Smaller map showing the previous reports water scarcity levels.

Link to [Accessible national water scarcity map](#)



The overall risk of water scarcity takes account of the individual water scarcity indices, relevant water use, sectors in each region, and forecast weather conditions. The areas shown in this map represent major river catchments. Details on how levels are set and actions required can be found in SEPA's [National Water Scarcity Plan](#).

Situation Summary

Despite some heavy showers, there has been limited rainfall across the east over the past week. This has led to drying ground conditions in the Tweed, which has been raised to Early Warning. In the east, the Firth of Tay remains at Alert while the Findhorn, Deveron, Ythan, Don (Aberdeenshire), Tyne (Lothian) and Esk (Angus) remain at Early Warning. The rest of the country remains at Normal Conditions.

SEPA is monitoring the situation and coordinating steps to manage water resources in line with Scotland's National Water Scarcity Plan which is available on SEPA's [water scarcity website](#).

You can help us by reporting any evidence you see of water scarcity. For details of information that would be useful to us and where to send it see: [Water scarcity in your area | Scottish Environment Protection Agency \(SEPA\)](#).

Advice for water users

We advise water users, including those with private water supplies, to be aware of the potential risk of water scarcity this summer, and for businesses to plan ahead where possible. [Water scarcity - plan ahead and use water wisely \(sepa.org.uk\)](#).

Water sources are at risk of becoming limited in the Alert areas. We are urging water users in these areas, especially if taking water from burns and small rivers, to:

- Routinely check equipment isn't leaking;
- Only abstract sufficient water for your requirements;
- Consider water saving and storage measures for the next irrigation season.
- If you operate a hydroscheme then ensure that weir structures are free from debris and passing the residual flow specified in your licence. You must cease abstracting water when the hands-off flow is reached.
- If you abstract and return water to the environment (from a fish farm, distillery or other cooling water process) then start to consider whether you can reduce or suspend abstraction, switch to an alternative source, or recirculate water.

- If the catchment reaches Moderate Water Scarcity, consider your upcoming water needs and begin to plan with others in the catchment to share the resource or schedule abstractions.

For the most up to date advice please see: [Advice for abstractors](#).

Weather forecast (19/09/24)

Settled conditions expected to continue towards the end of the week. Low cloud affecting eastern coastal areas later on Thursday onwards with some drizzle at times in the east. Monday may see northeasterly winds with some showers or frontal rain affecting northern Scotland.

The rainfall outlook for the autumn (September-November) period suggests that across the UK there is a higher-than-normal chance of above average rainfall and temperature. There is an increase in the chance of stormy conditions during this time.

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Supporting information

Rainfall and river flows:

These maps show rainfall (top row) and river flow (bottom row) relative to the long-term average, for this time of year, over 30 days, 90 days, and 180 days.

The short-term rainfall map shows normal conditions across most of the country while there have been wet conditions across parts of the west and central belt. Short term river flows in the west are generally high to very high. However, in parts of Edinburgh and the Lothians, Angus, the north and northeast, river flows are mostly normal to low.

Over the past three months, most of the country has experienced normal to wet conditions. Parts of Aberdeenshire, Dundee, Angus, Fife as well as Edinburgh and the Lothians have been quite dry to very dry. River flows show a similar picture, however with normal conditions in most of Aberdeenshire. In the longer term, rainfall and river flows are generally normal to very high over the last six months although river flows in parts of the north and Tayside have been quite low to very low.

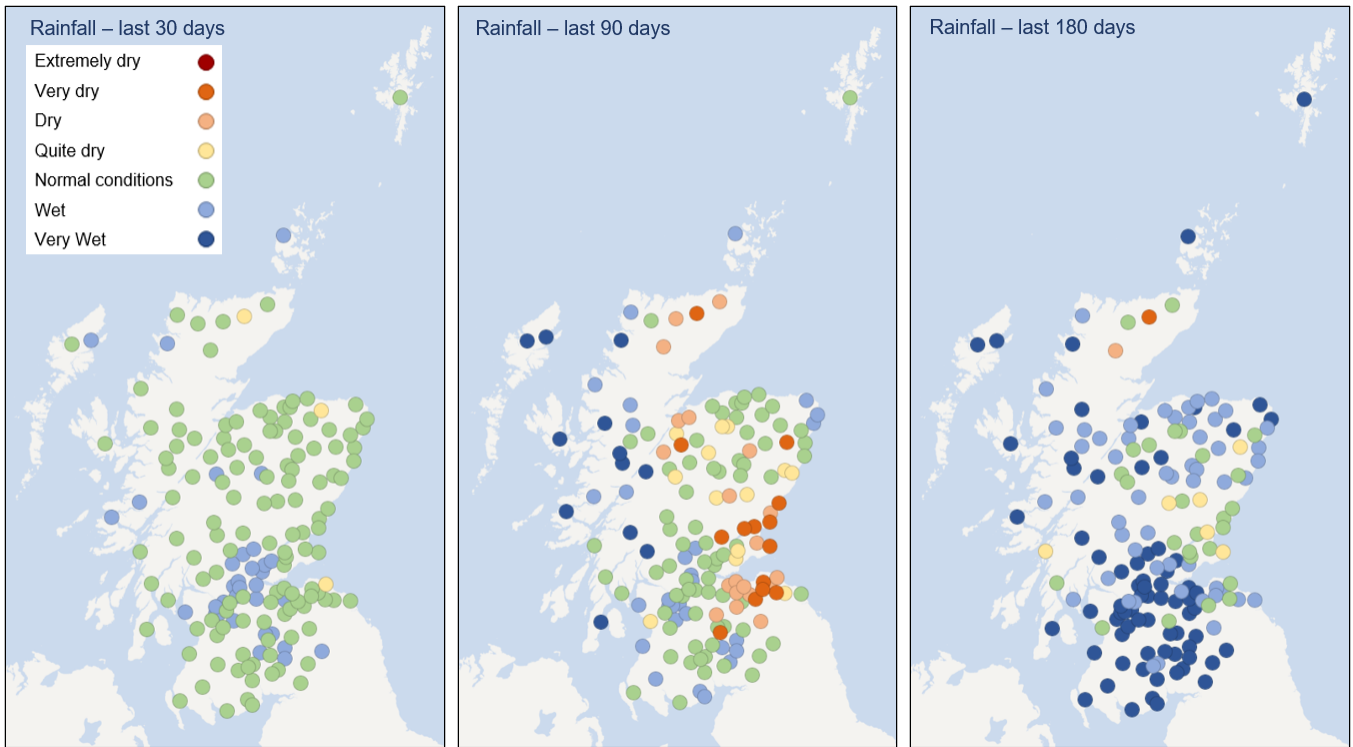


Figure 2: Maps of Scotland showing rainfall from each rainfall monitoring station relative to the long-term average, for this time of year, over 30 days (left), 90 days (middle) and 180 days (right).

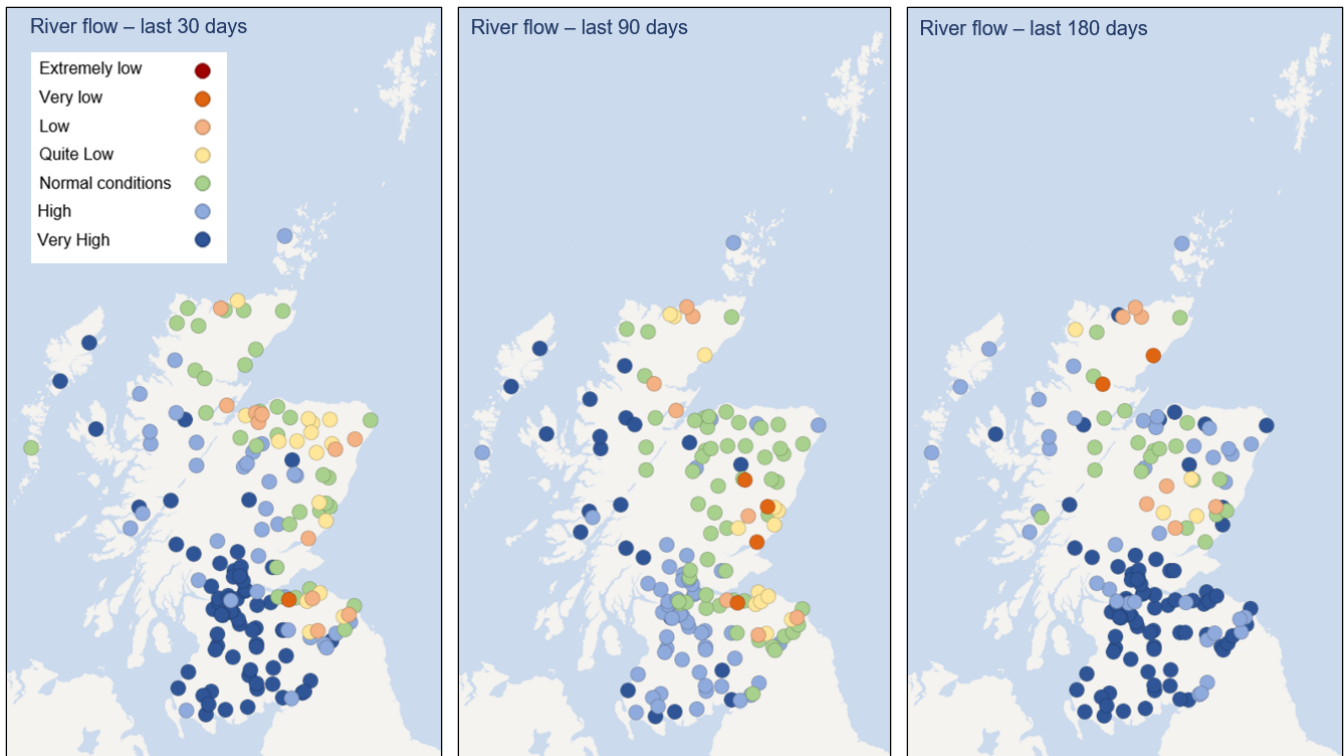
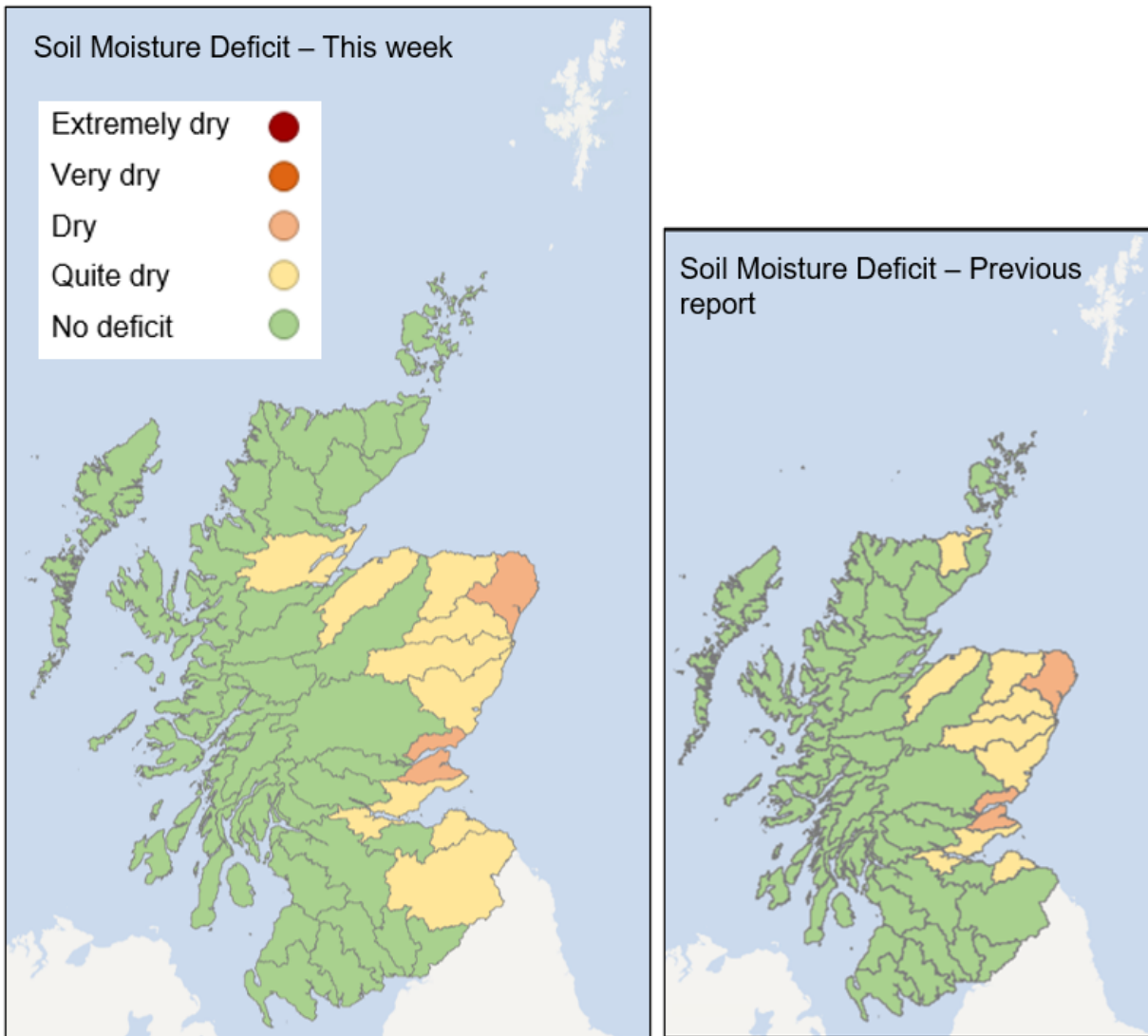


Figure 3: Maps of Scotland showing river flows from each river monitoring station relative to the long-term average, for this time of year, over 30 days (left), 90 days (middle) and 180 days (right).

Soil moisture deficit:

These maps show this week's soil moisture deficit, alongside our previous report for comparison. This is obtained from the Met Office Rainfall and Evaporation Calculation System (MORECS). There is no soil moisture deficit in the west of Scotland. Ground conditions are quite dry for much of the east. The Firth of Tay and Ythan areas have dry ground conditions.



Data based on MORECS (Met Office © Crown Copyright). Some features of this information are based on digital spatial data licensed from the Centre for Ecology and Hydrology Copyright NERC (CEH). Contains OS data © Crown copyright [and database right]. Base map ©OpenStreetMap contributors

Figure 4: Maps of Scotland showing this week’s soil moisture deficit. A smaller map of Scotland shows the previous reports soil moisture deficit.

Natural water storage

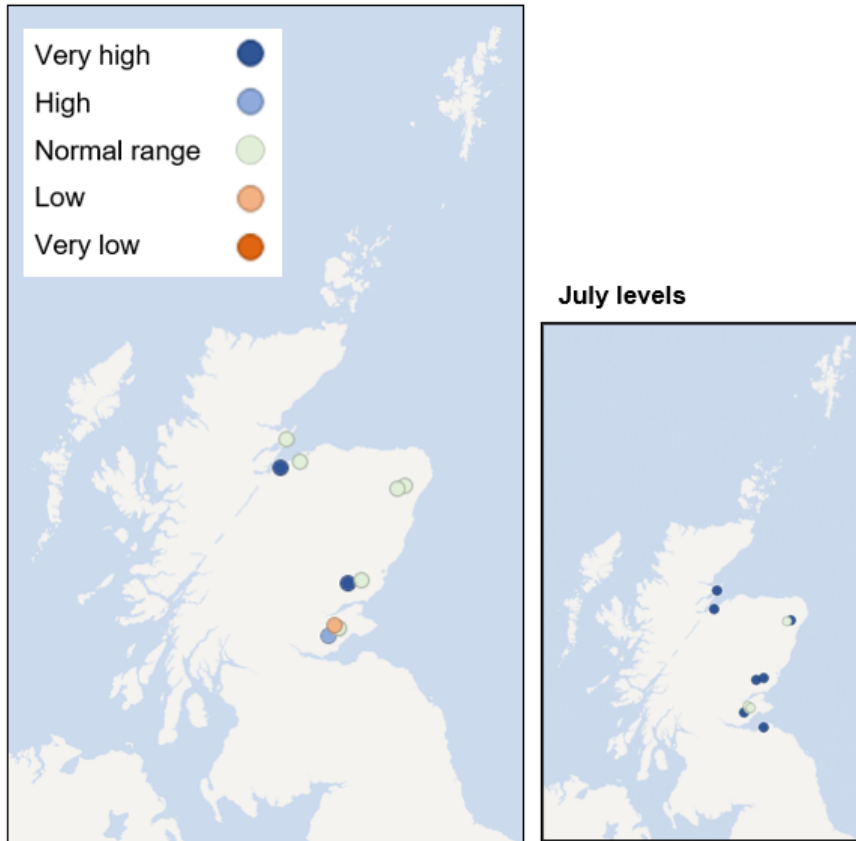
In each river catchment there is some degree of natural water storage, which can maintain river flows even when it is not raining. This natural water storage is mainly held in lochs and groundwater. When storage has been depleted it will take a lot of rainfall for levels to recover.

The maps below show recent groundwater and loch level compared to the long-term record at each individual station. Level is reported as high or low compared to the typical (‘normal’) level range for the time of year. Level ranges are specific to each station and based on the long-term (minimum 10 years) record of mean monthly level values recorded at individual stations.

Groundwater levels:

August groundwater levels remain mostly normal to very high.

Mean monthly groundwater levels for August



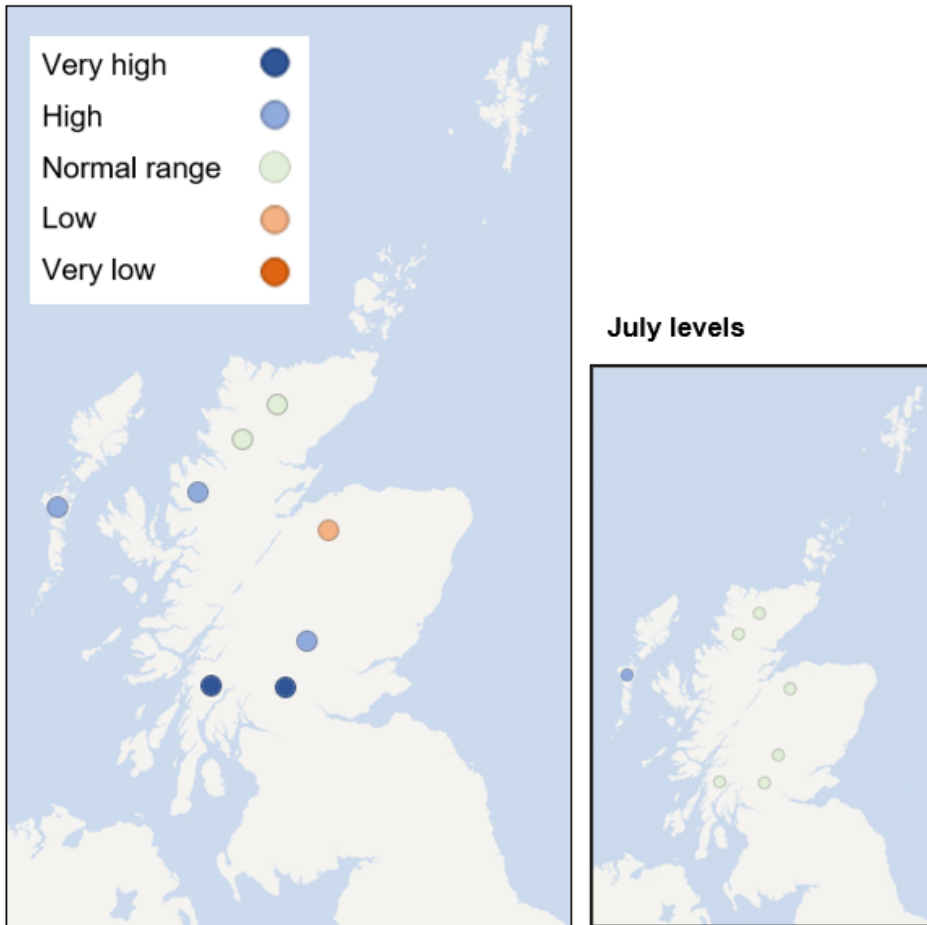
Base map ©OpenStreetMap contributors

Figure 5: A map of Scotland showing how the mean monthly groundwater level for August compares to the long-term record at each individual station. A smaller map of Scotland shows the groundwater levels for July.

Loch levels:

August loch levels across the country were normal to very high for this time of year.

Mean monthly loch levels for August



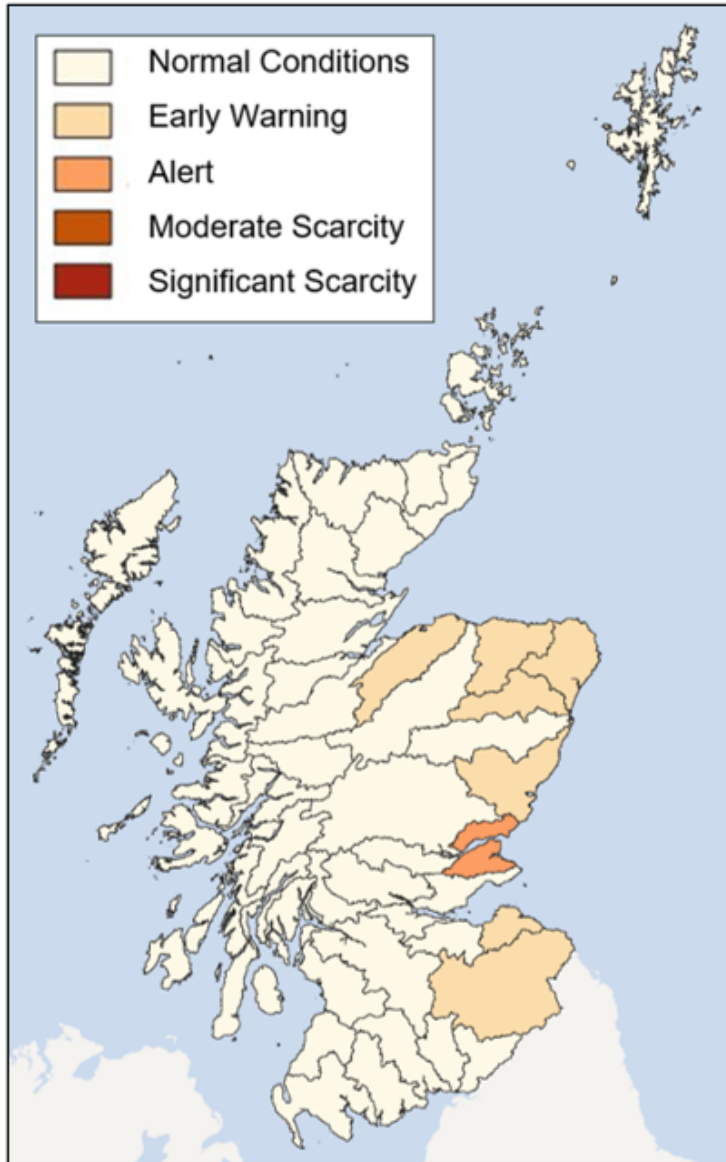
Base map ©OpenStreetMap contributors

Figure 6: A map of Scotland showing how the mean monthly loch level for August compares to the long-term record at each individual station. A smaller map of Scotland shows the loch levels for July.

Flow, rainfall and groundwater data are accessed via SEPA's [time series data service](#) (API). SEPA's live data are subject to ongoing quality control and periodic review.

Appendix

Accessible national water scarcity map



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Figure 7: A map of Scotland showing the current water scarcity level in each catchment coloured with accessible colours.

The above [Situation Summary](#) describes the conditions in more detail.

For information on accessing this document in an alternative format or language, please contact SEPA by emailing equalities@sepa.org.uk

If you are a user of British Sign Language (BSL), the Contact Scotland BSL service gives you access to an online interpreter, enabling you to communicate with us using sign language. contactscotland-bsl.org