Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

For the future of our environment

Water Scarcity Report

11th July 2024

Despite recent rain, parts of the east and the Kintyre area remain in Early Warning for water scarcity. The Almond and Tweed catchments have moved to Early Warning.

Normal Conditions are now in place across the majority of the country.

Water scarcity levels - This week

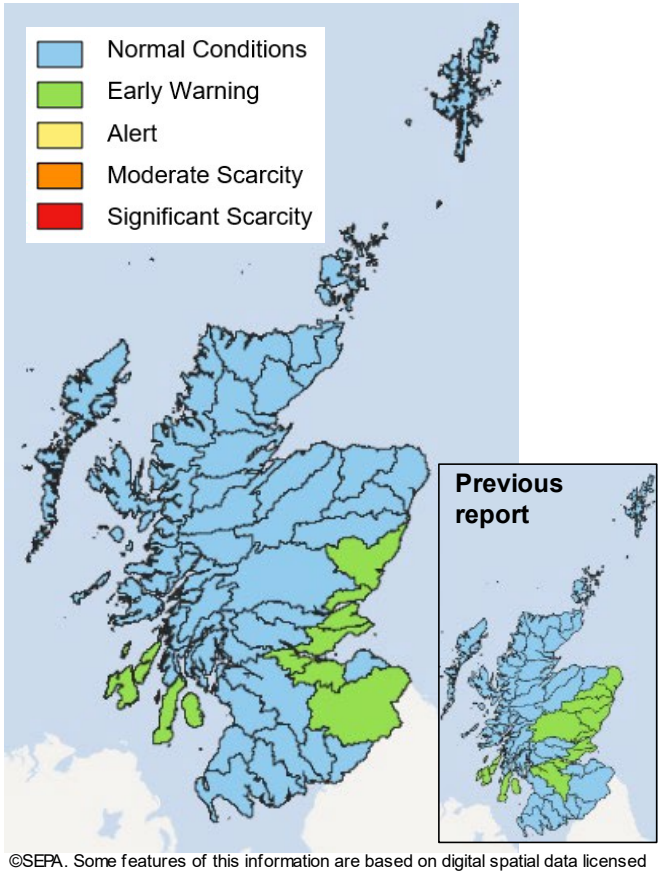


Figure 1: Larger map of Scotland showing this week's water scarcity levels. Smaller map showing the previous reports water scarcity levels.

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

Due to the rainfall over the last week, the Ythan, Don (Aberdeenshire), Dee (Aberdeen) and Tay river catchments have returned to Normal Conditions with no water scarcity expected.

However, low river flows and dry soils have seen the Almond and Tweed catchments raised to early warning of water scarcity.

The Esk, Firth of Tay, Firth of Forth and Kintyre regions remain at early warning.

Elsewhere across the country the level remains at Normal.

Groundwater levels at all monitoring locations range between normal and very high for the time of year.

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)

Weather forecast (11/07/24)

Patchy rain at first across the northeast on Thursday, otherwise mainly dry. Occasional rain or showers across the northwest on Friday, mainly dry elsewhere. Mainly dry over the weekend and Monday, just a few showers or a little patchy rain.

The rainfall outlook for the July-September period suggests that across the UK the chances of a wet or dry summer are fairly balanced. The chance of a hot summer is higher than normal, but similar to recent years.

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.

Short-term rainfall maps show quite dry to dry conditions across the central belt and parts of the east coast, with the rest of the country showing normal to wet conditions.

Short term river flows are similar to short term rainfall, with low and very low flows in the central belt extending to Angus and Dee catchments. Flow conditions in the north remain normal to very high, whilst in the south are mostly at normal flow conditions with a few stations at low to very low flows.

In the longer term, the east and south have generally been wetter than average, with normal conditions prevailing across the west and north, and in parts of Aberdeenshire. River flows have been very high in the south and east due to the wet winter/spring. North of the Great Glen, and in parts of the Cairngorms, river flows have been normal.

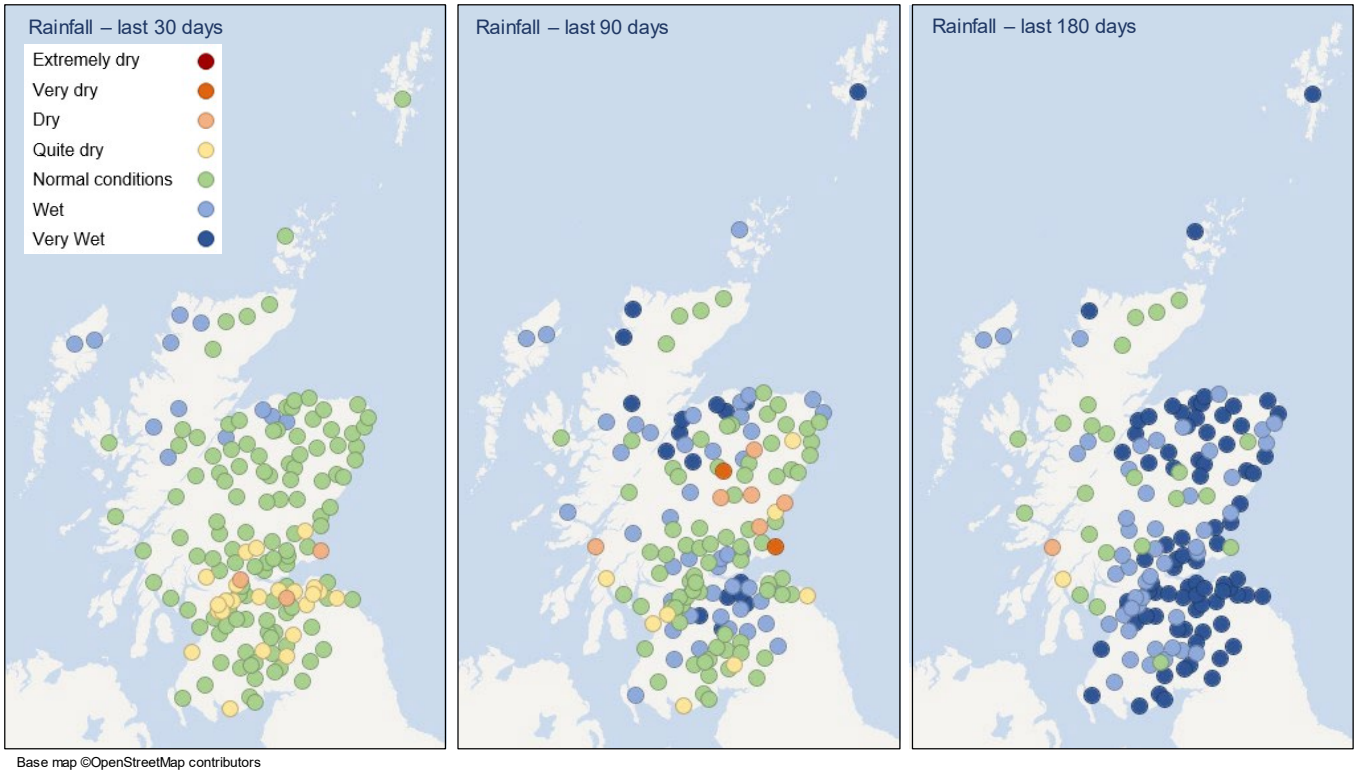


Figure 2: Maps of Scotland showing rainfall from each rainfall monitoring station relative to the long-term average, for this time of year, over 30 days (left), 90 days (middle) and 180 days (right).

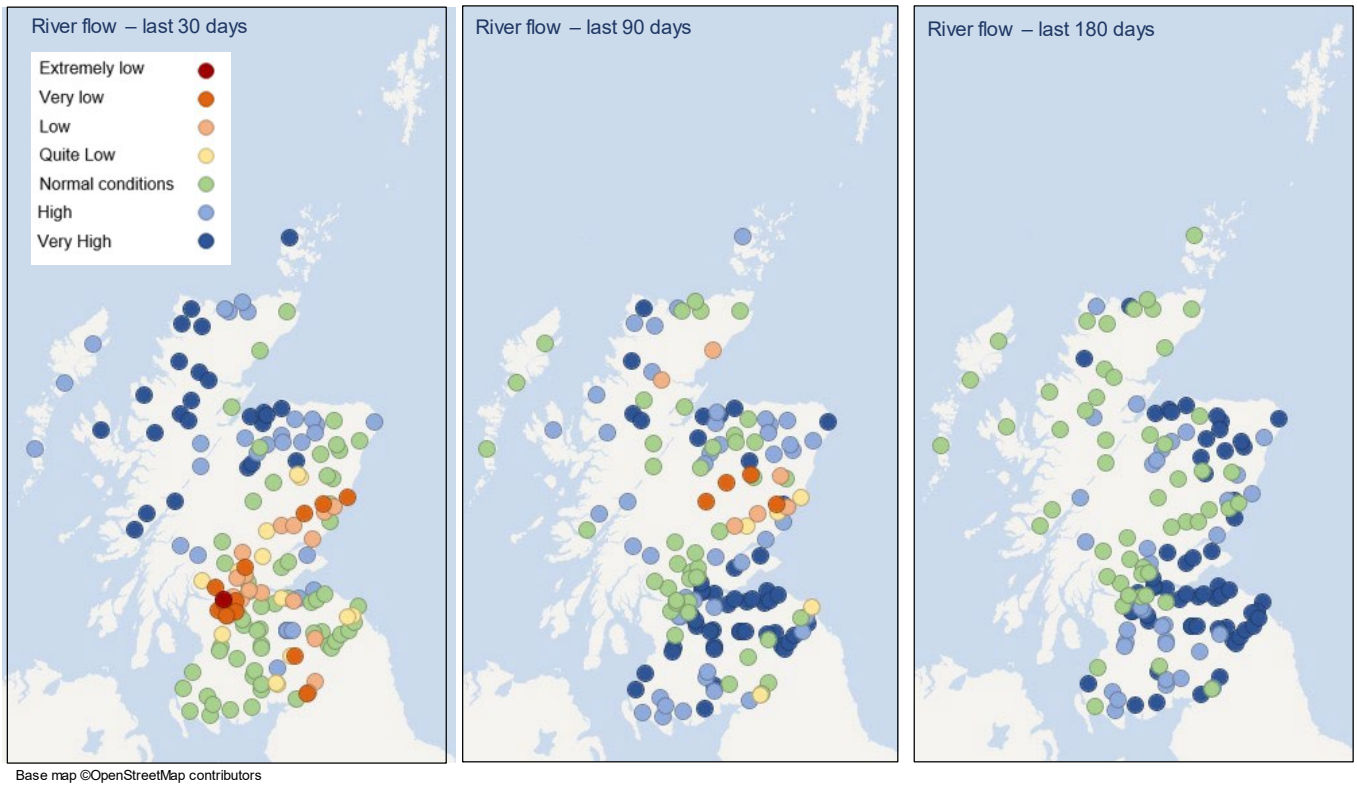
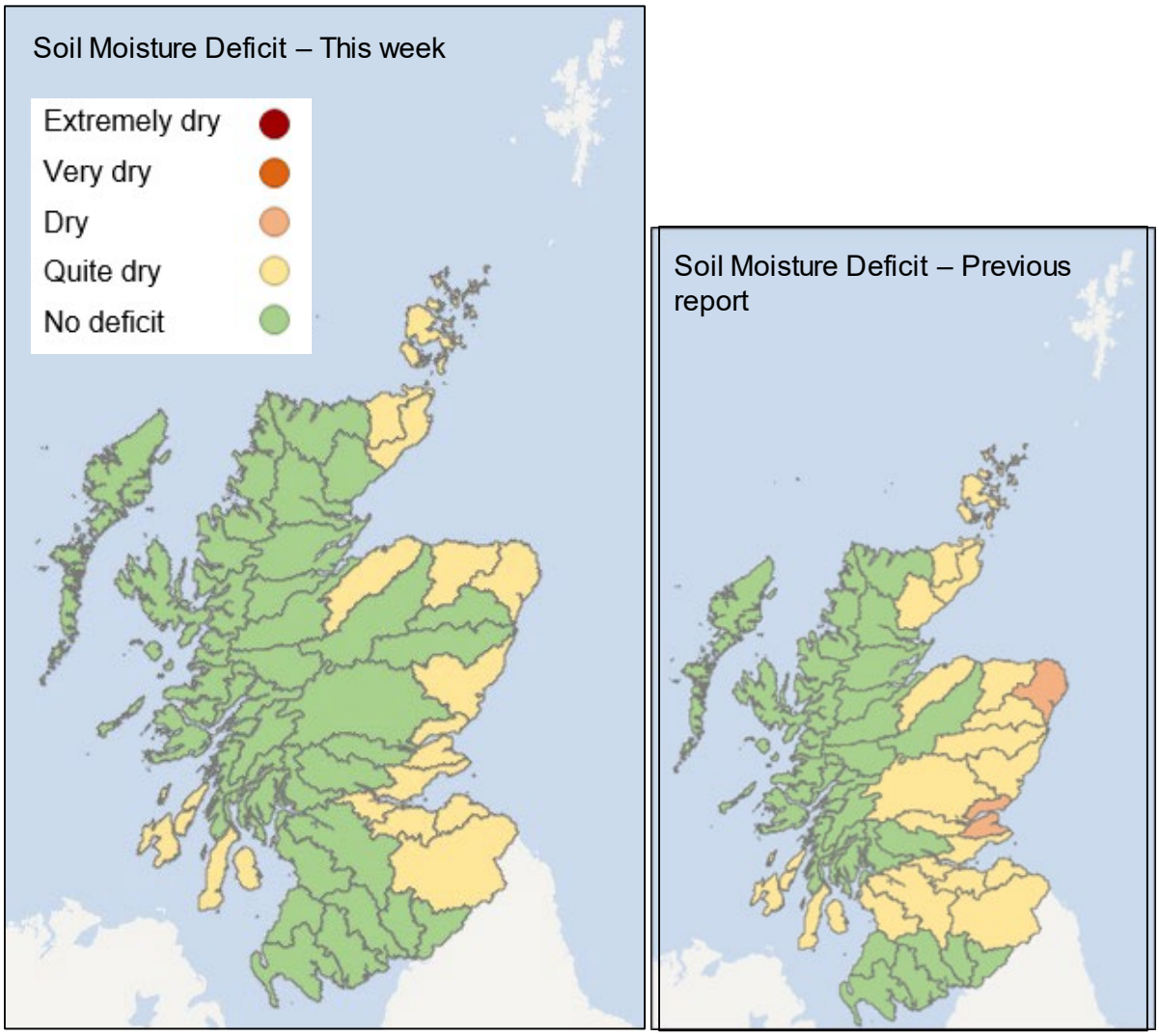


Figure 3: Maps of Scotland showing river flows from each river monitoring station relative to the long-term average, for this time of year, over 30 days (left), 90 days (middle) and 180 days (right).

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 across most of the west and north-west. However, ground conditions are quite dry across much of the east.



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:

June groundwater levels were normal or above at all monitoring locations.

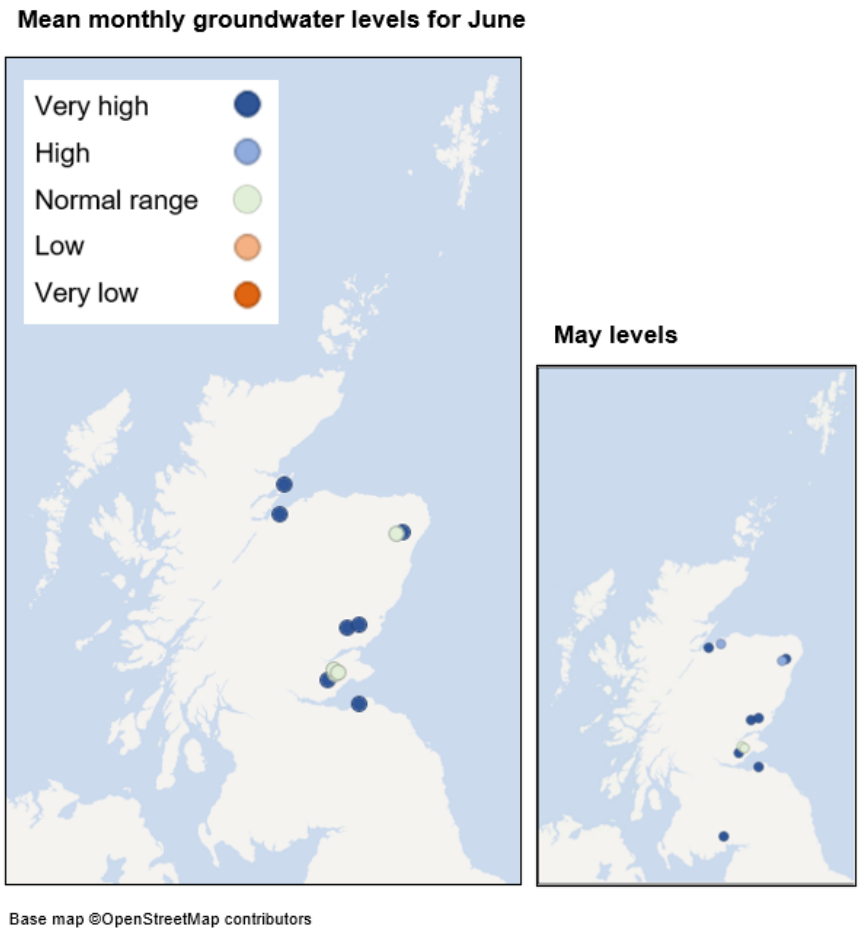


Figure 5: A map of Scotland showing how the mean monthly groundwater level for June compares to the long-term record at each individual station. A smaller map of Scotland shows the groundwater levels for May.

Loch levels:

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

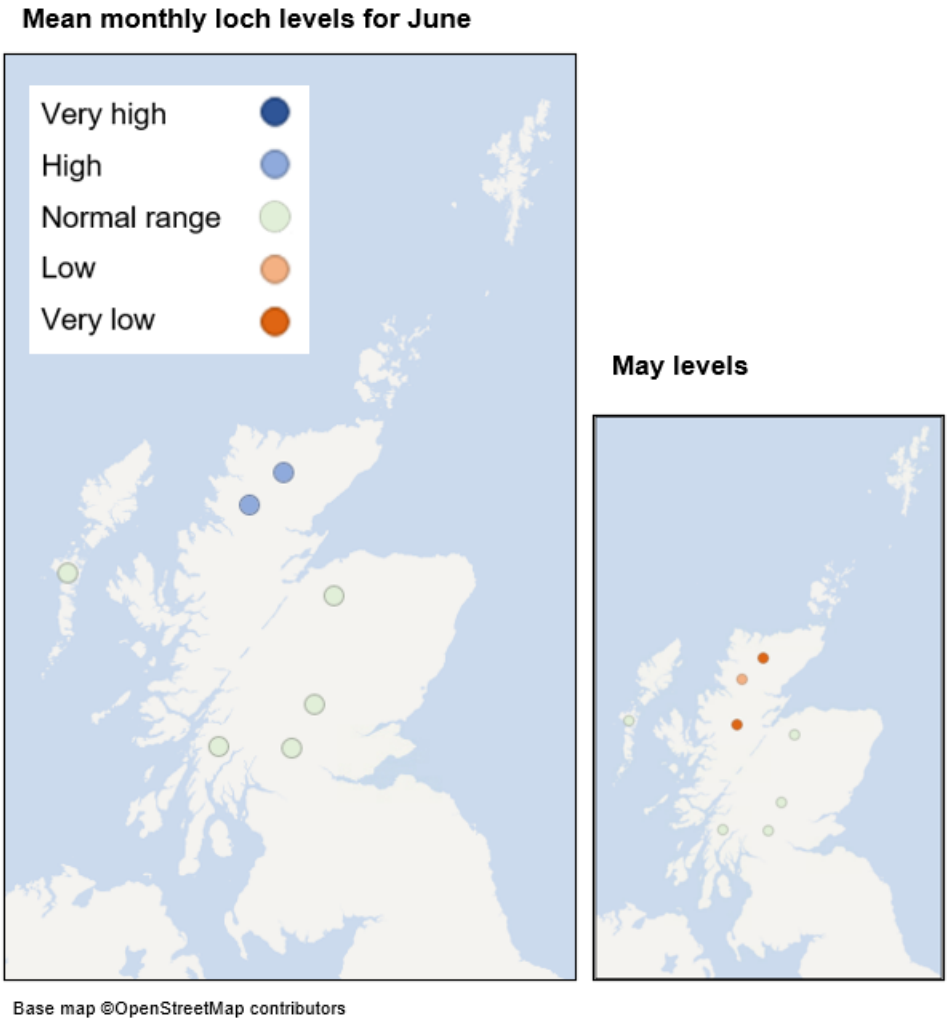


Figure 6: A map of Scotland showing how the mean monthly loch level for June compares to the long-term record at each individual station. A smaller map of Scotland shows the loch levels for May.

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

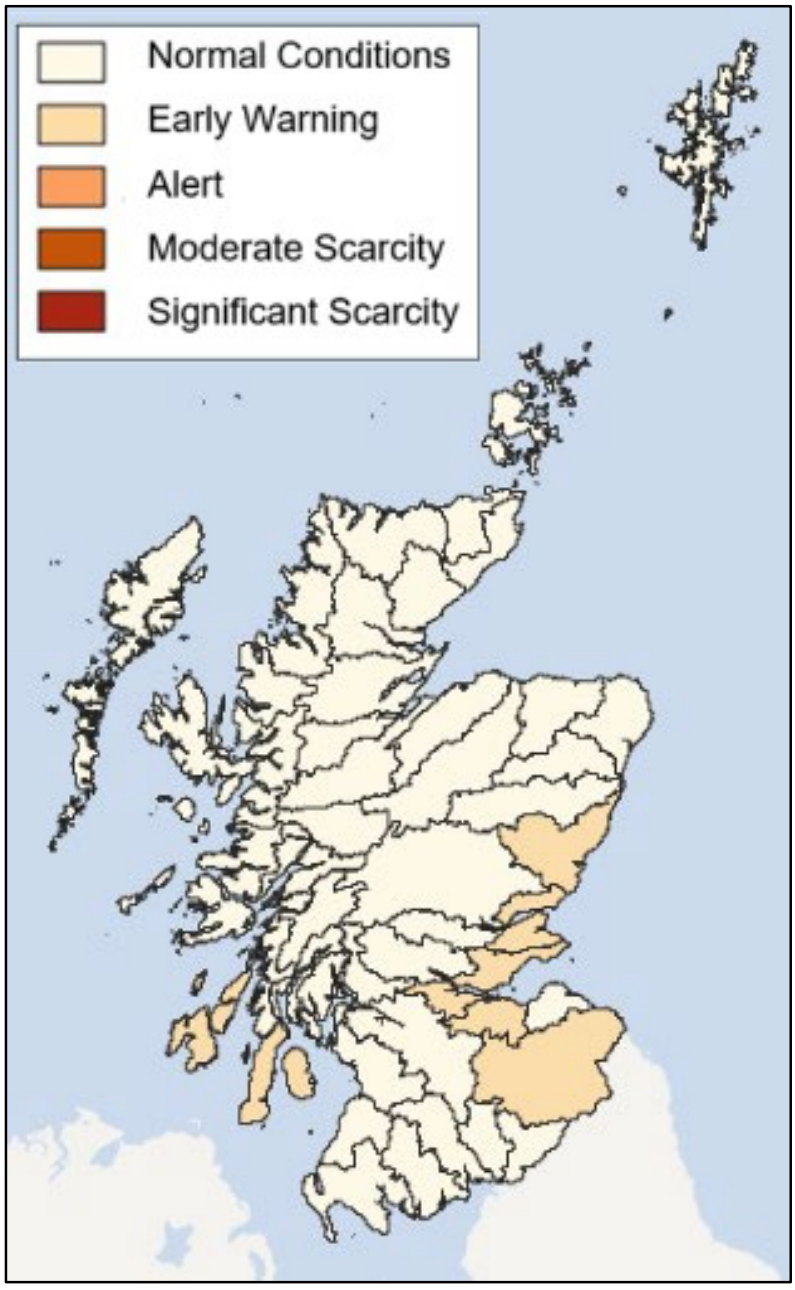


Figure 7: A map of Scotland showing the current water scarcity level in each catchment coloured with accessible colours.

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