

HEADLINE

North East Scotland and North Highland are still at Significant Scarcity due to evidence of ecological impacts resulting from a protracted period of exceptionally low flows.

The Don, Ythan and Shin catchments have improved to Moderate Scarcity this week.

There are no areas where normal public water supplies have been affected.

Situation summary

With further rainfall in the previous week we have seen improvements in the water scarcity situation across the south of the country.

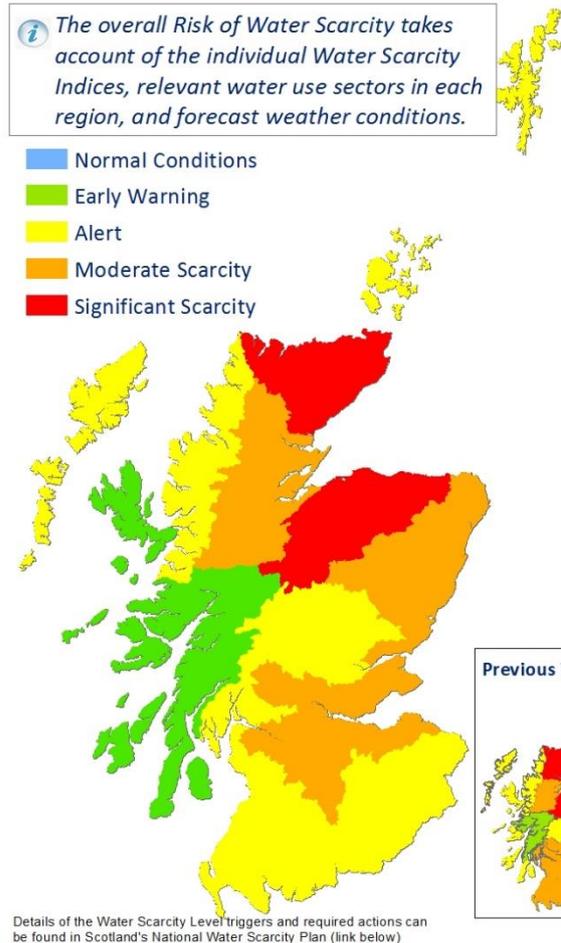
In central regions, particularly in the Clyde catchment and Fife, there has been a much less significant response in terms of river flows and water storage. These areas remain in Moderate Scarcity.

In the North-east and North Highland regions there has also been further gradual improvements but the rainfall has been much lower and the significant water scarcity situation remains in place. The Don, Ythan, and Shin catchments have been improved to the Moderate Scarcity category as we have not seen evidence this week of further extensive impacts. The advice in these areas is still to manage water resources sustainably in order to avoid reverting to the previous situation. River ecology and water supplies will still be vulnerable if conditions should get drier in the weeks ahead.

The soil moisture deficit has improved everywhere except the far north, although ground conditions in the North Highlands, Northeast, and Fife and Angus remain Very Dry.

We have seen evidence in the Significant Scarcity areas of ecological and environmental impact as a result of the situation, including fish kills and some smaller watercourses drying up. SNH and Fishery Trusts have also collaborated to translocate Freshwater Pearl Mussels in affected rivers.

There has been a limited amount of recharge in some lochs and reservoir storage as much of the rainfall has been retained within soils, as demonstrated by the improved soil moisture deficit. Groundwater levels respond much more slowly so remain at very low levels as last week. Rivers are responding to rainfall but due to the background conditions levels are falling again relatively quickly.



We are monitoring the situation closely and coordinating steps to manage water resources in line with [Scotland's National Water Scarcity Plan](#).

There are no areas where normal public water supplies have been affected, Scottish Water have reported that demand has returned to normal for the time of year but there is no guarantee that this will not increase again if warmer weather returns.

Scottish Water is managing water supplies across Scotland through this extended dry period and will continue to monitor the situation closely. Advice has been issued to all customers to use water wisely nationwide (*link to advice www.scottishwater.co.uk/about-us/media-centre/latest-news/customers-across-scotland-asked-to-use-water-wisely*).

By continuing to manage water resources sustainably, businesses that abstract water can help make the water supplies on which they and others depend last as long as possible through this period.

SEPA is working with businesses to help ensure abstractions can be sustained and the water environment protected.

General and sector specific advice for abstractors is available: [Advice for abstractors](#).

Water abstractors with concerns about meeting licence conditions or wishing to discuss contingency measures should [contact their local SEPA office](#).

Scottish Water and Local Authorities are working together to help maintain supplies. If your private water supply is drying up you should contact your local authority for assistance and follow the advice about [maintaining your private supply](#).

Forecast (at 16/08/18): Based on data from Met Office

Further rain crossing from the west on Friday, persistent and moderate in the southwest, followed by showers, mainly in the northwest, with strong to gale force southwesterly winds. Some lighter showers on Saturday with longer dry periods, then some heavy persistent rain reaching southern and central areas on Saturday night and into Sunday. Further light rain on Monday.

The forecast confidence is high for unsettled conditions, with the main focus on the heavy rain in southern and central areas on Saturday night/early Sunday. Exactly where the heaviest rain will be, the northern extent, and timing is still somewhat uncertain.

The longer-term outlook still shows a slightly higher likelihood of drier and warmer conditions than normal over the next three months. For further details on the seasonal forecast see the latest report at <http://www.hydotuk.net>.

Further details on the current situation are provided in the following figures.

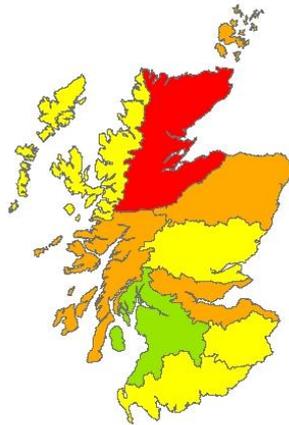
15/08/2018

Precipitation Indices

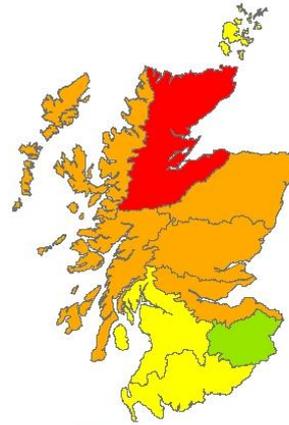
Rainfall over the past 30 days



Rainfall over the past 90 days



Rainfall over the past 180 days



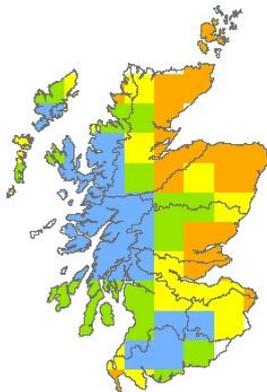
These maps show how low current rainfall totals are for this time of year, relative to historical averages, over the past 30, 90 and 180 days.

- Normal Conditions
- Quite Dry
- Dry
- Very Dry
- Exceptionally Dry

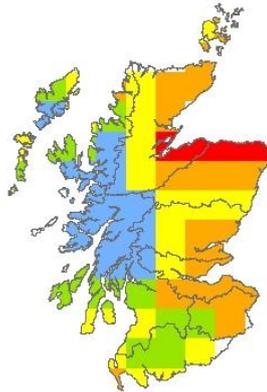
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Soil Moisture Deficit Maps

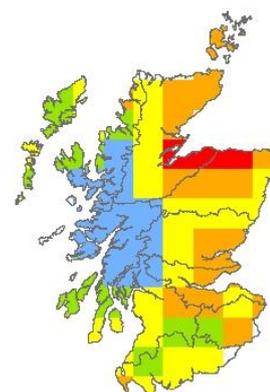
Soil Moisture Deficit Current



Soil Moisture Deficit 7 days prior



Soil Moisture Deficit 14 days prior



These maps depict the latest Soil Moisture Deficit (SMD) data and the SMD 7 and 14 days prior.*

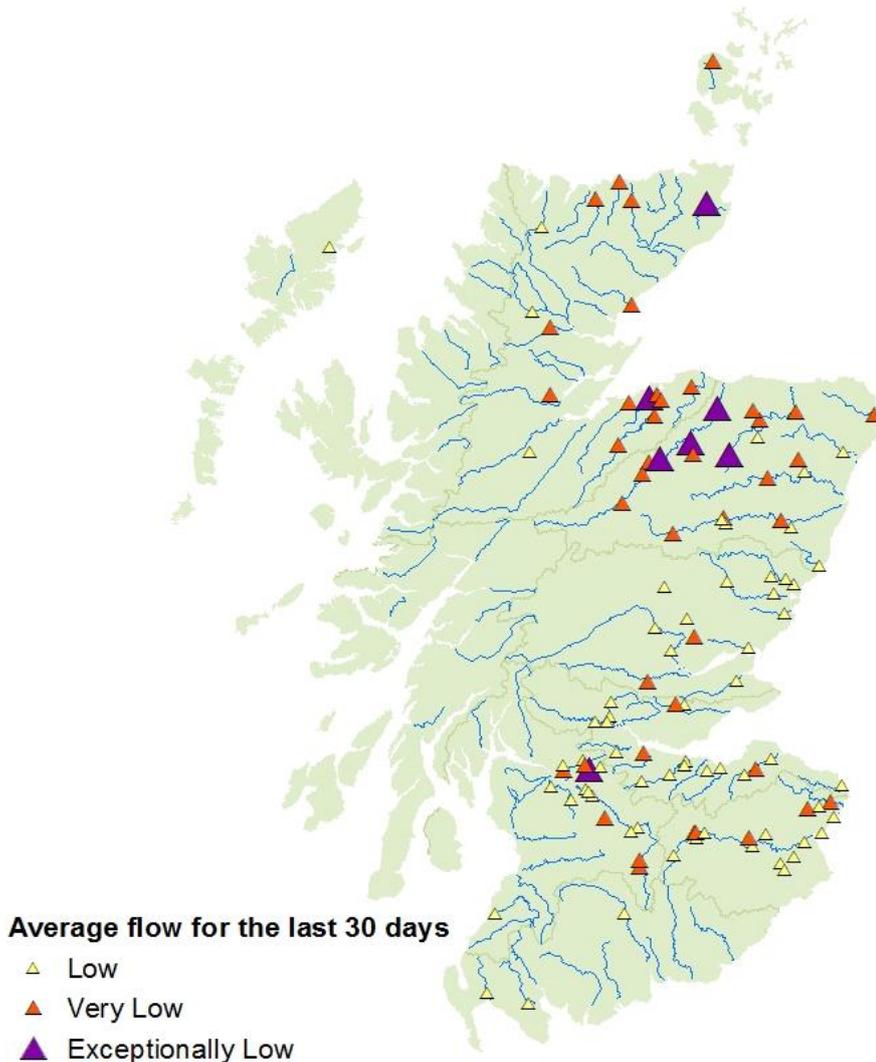
- No Data
- No Deficit
- Quite Dry
- Dry
- Very Dry
- Exceptionally Dry

* MORECS data obtained from MetOffice



This map shows the average flow at SEPA's gauging stations over the past 30 days, highlighting sites which have been at very low flows for this period.

Evidence shows that river ecology is at high risk when very low flows are maintained for this length of time.



Notes on exceptionally low flows:

- In the figure above, those sites marked as exceptionally low have had the types of low flows normally seen only a few days per year, persisting for at least a month.
- Even in areas where flows have not reached this extremely low level the advice to use water wisely still applies.

Further information from SEPA's water level stations can be found at <http://apps.sepa.org.uk/waterlevels/>.



Natural water storage situation

In each river catchment there is some degree of 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 natural storage has been depleted it will take a lot of rainfall for levels to recover.

Please note that the map below does not reflect conditions in managed water supply reservoirs.

16/08/2018



West – Low

Loch level data indicate low levels of storage in this area.

There has been further recovery to long term storage following rainfall, however without further sustained rainfall, storage levels will begin to fall again.

East – Very Low

Loch and groundwater level data indicate very low levels of storage in this area compared to the long term record.

There are some cases where groundwater levels are lowest on record.

There is continuing evidence of a slowing in the rate of falling levels. There has also been a slight recovery at some sites. With current conditions, however, it will take a long period of time for levels to return to normal.