

## 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 Dee catchment has improved to Moderate Scarcity this week.**

**It will require at least a month of rainfall significantly wetter than normal to alleviate the current water scarcity in the worst affected areas.**

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

## Situation summary

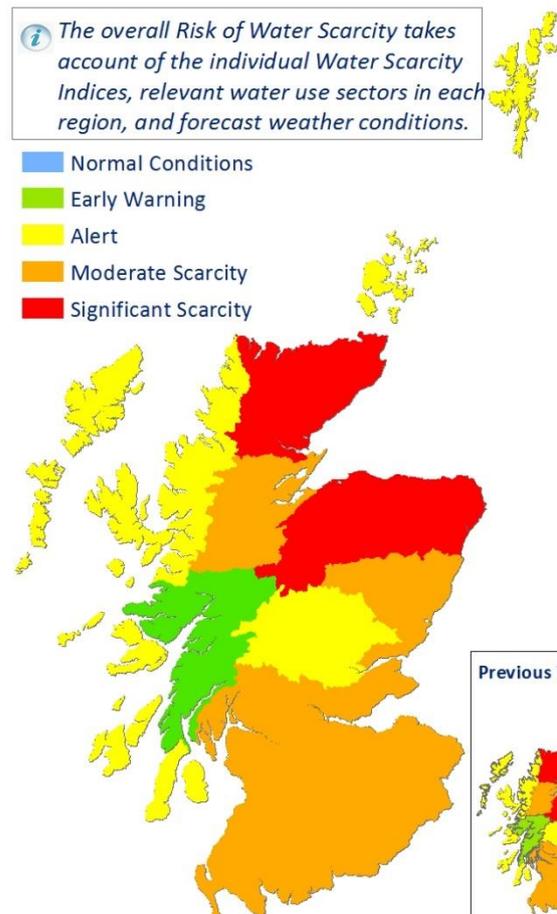
The water scarcity situation remains broadly similar to the last week, although with evidence of some gradual improvement.

We have seen a return to quite normal rainfall for this time of year in recent weeks. Rivers in most areas have seen some recovery in flows, which has led to a slowing in the decline in water resources, particularly in western regions. However, river levels are falling relatively quickly following any rainfall events. In the North Highlands and Moray regions rainfall received was less significant and river flows have remained extremely low.

Conditions have improved enough in the Dee catchment to take it out of the Significant Scarcity category. The underlying conditions are still dry, however, so there is a real possibility of the situation worsening again if further dry weather occurs in the coming weeks.

Rainfall and evaporation rates were largely balanced this week so there has been little change to the soil moisture deficit. Soils are still very dry to exceptionally dry across much of the north and east.

We continue to see evidence in the North Highlands and North East regions of river beds becoming extensively exposed and where there is water it is very shallow and slow flowing. These conditions have previously led to some high river water temperatures. All of which have put stress on river plants, fish and other animals. 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 across most of the country. Groundwater levels respond much more slowly so remain at very low levels as last week.

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](http://www.scottishwater.co.uk/about-us/media-centre/latest-news/customers-across-scotland-asked-to-use-water-wisely)*).

**By taking the right steps now, 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 09/08/18): Based on data from Met Office

Scattered showers today, heavy at times especially over western Scotland. Further heavy showers crossing the Country on Friday, possibly thundery. A dry start to the weekend but rain will extend from the southwest later on Saturday and Saturday night, heavier for a time over southern Scotland. Some heavy showers will follow on Sunday and Monday.

There is high confidence of changeable weather pattern during this period, but lower confidence on rainfall accumulations, especially later Saturday and on Sunday.

The longer-term outlook still shows a slightly higher likelihood of drier and warmer conditions than normal over the next three months, although the confidence in this is not high.

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

08/08/2018

### Precipitation Indices

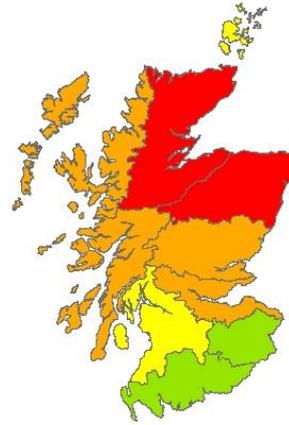
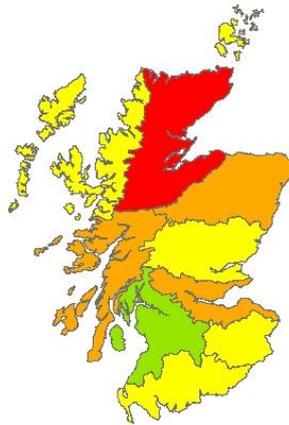
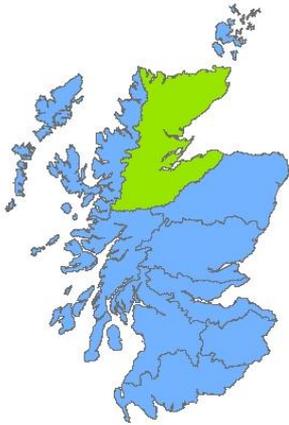
Rainfall over the past 30 days



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

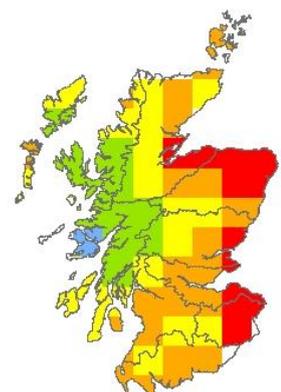
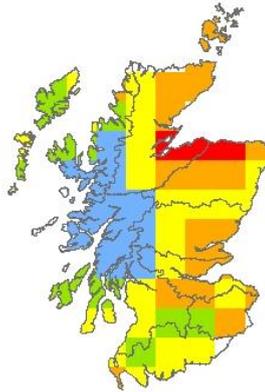
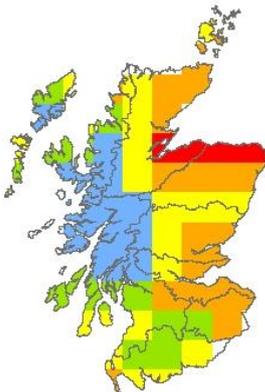
Soil Moisture Deficit Current



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.*

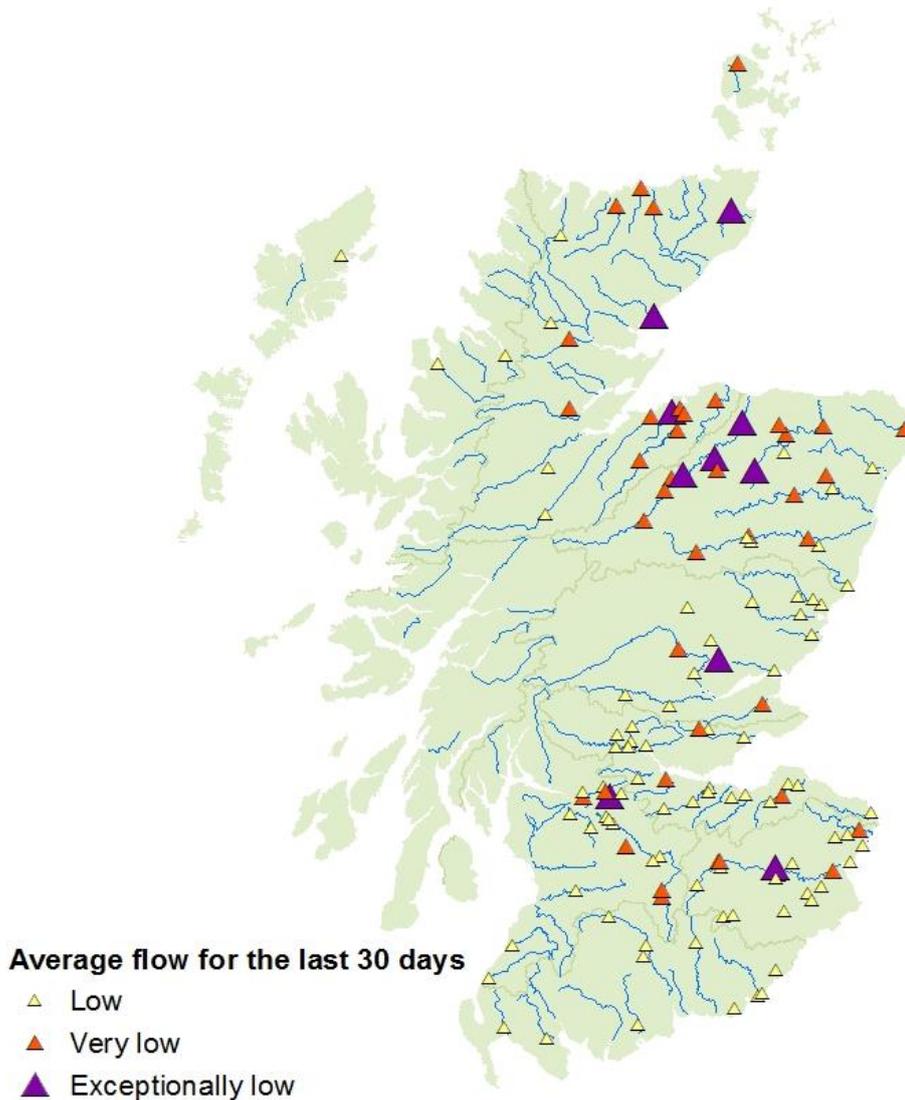
- No Data
- No Deficit
- Quite Dry
- Dry
- Very Dry
- Exceptionally Dry

\* 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.

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### West – Low

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

There has been some 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 has been some 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.