Water Scarcity Situation Report

3rd July 2019

SEPA Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

HEADLINE

Early Warning of water scarcity remains in place between Aberdeenshire and Fife. Ayrshire, Galloway and the Clyde regions are now also in Early Warning.

Normal Conditions remain in place across the rest of the country.

Situation summary

Surface conditions and river levels have begun to dry out across the majority of the country despite recent rainfall.

Groundwater levels along the East are still low for this time of year and further dry weather in this area will see levels decline.

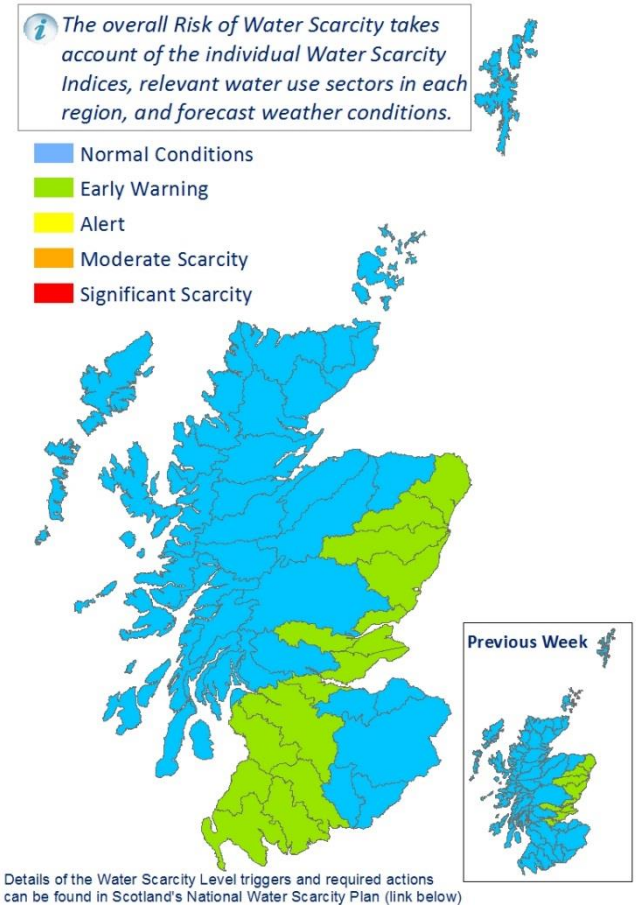
The south of the country is expected to receive limited rainfall over the coming five days so conditions are expected to dry further next week.

Advice for water users

We would still advise that farmers using water for irrigation:

- Only irrigate when, and only as much as, absolutely necessary;
- Make sure irrigation equipment isn't leaking;
- Position irrigators carefully so that they do not over-spray beyond the edge of the crop.

Figure 1: Current Water Scarcity Level



Details of the Water Scarcity Level triggers and required actions can be found in Scotland's National Water Scarcity Plan (link below)

Managers of golf courses are asked to do the same.

SEPA are monitoring the situation closely and coordinating steps to manage water resources in line with Scotland's National Water Scarcity Plan. If you have noticed any impact as a result of the dry weather, we would be interested in hearing about them. For further details on reporting impacts of dry weather see https://www.sepa.org.uk/environment/water/water-scarcity/.

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.

Rainfall forecast (Source: Met Office 03/07/2019)

Outbreaks of rain across the far north and northwest today, otherwise largely dry. Heavy, persistent rain expected across northwestern hills and mountains on Thursday with outbreaks of rain towards the east coast but much of central and southern Scotland dry. The rain clears erratically south of Friday to leave a few showers through the weekend.

The longer-term outlook is uncertain. For July-August-September as a whole, the chances of above- and below-average precipitation are similar. On balance, wetter-than-average conditions are marginally more likely. For further details on the seasonal forecast see the latest 3-month outlook summaries at https://www.metoffice.gov.uk/services/government/contingency-planners/index

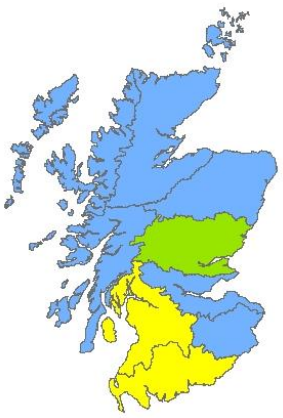
Further details on the current situation are provided in the following figures:

03/07/2019

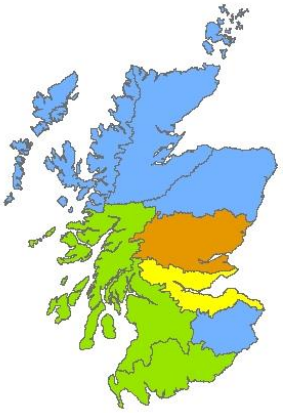
Precipitation Indices

Rainfall over the past 30 days

Rainfall over the past 90 days



Rainfall over the past 180 days



- Normal conditions
- Quite dry
- Dry
- Very dry
- Exceptionally dry

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.

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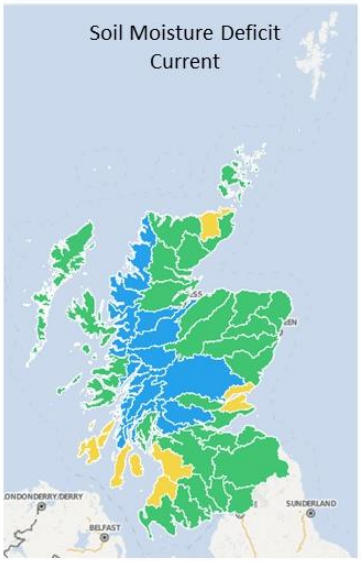
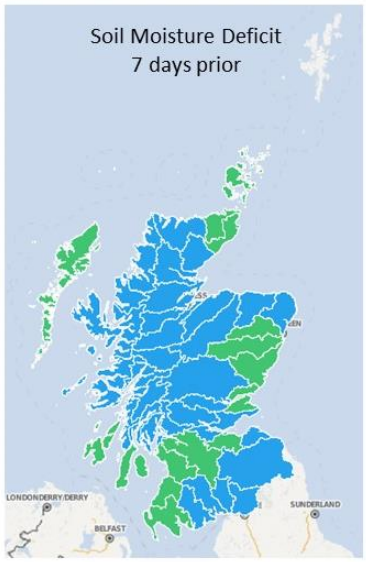
Soil Moisture Deficit

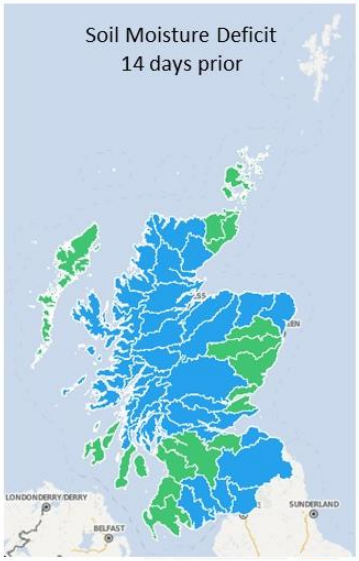
Soil Moisture Deficit Current



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 Deficit
- Quite Dry
- Dry
- Very Dry
- Exceptionally Dry

**MORECS data obtained from MetOffice*

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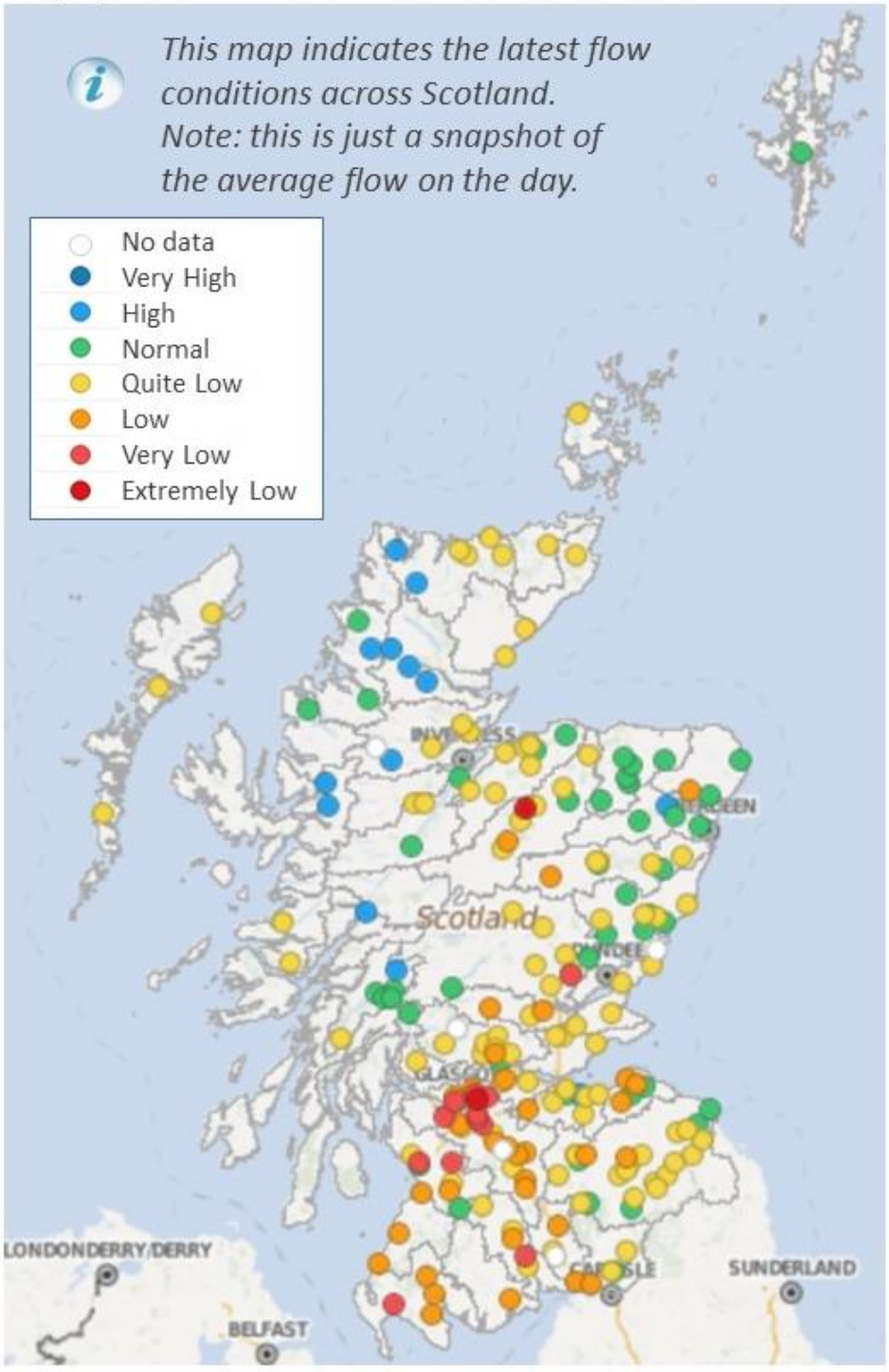
Current Flow Conditions



03/07/2019

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.

North-west

Loch levels

Loch levels in the north-west have recovered following recent rainfall

East

Groundwater levels

Groundwater levels along the east coast continue to decrease after showing signs of recovery. At some sites, levels are still low compared to the long-term record (see the graphs below as an example).

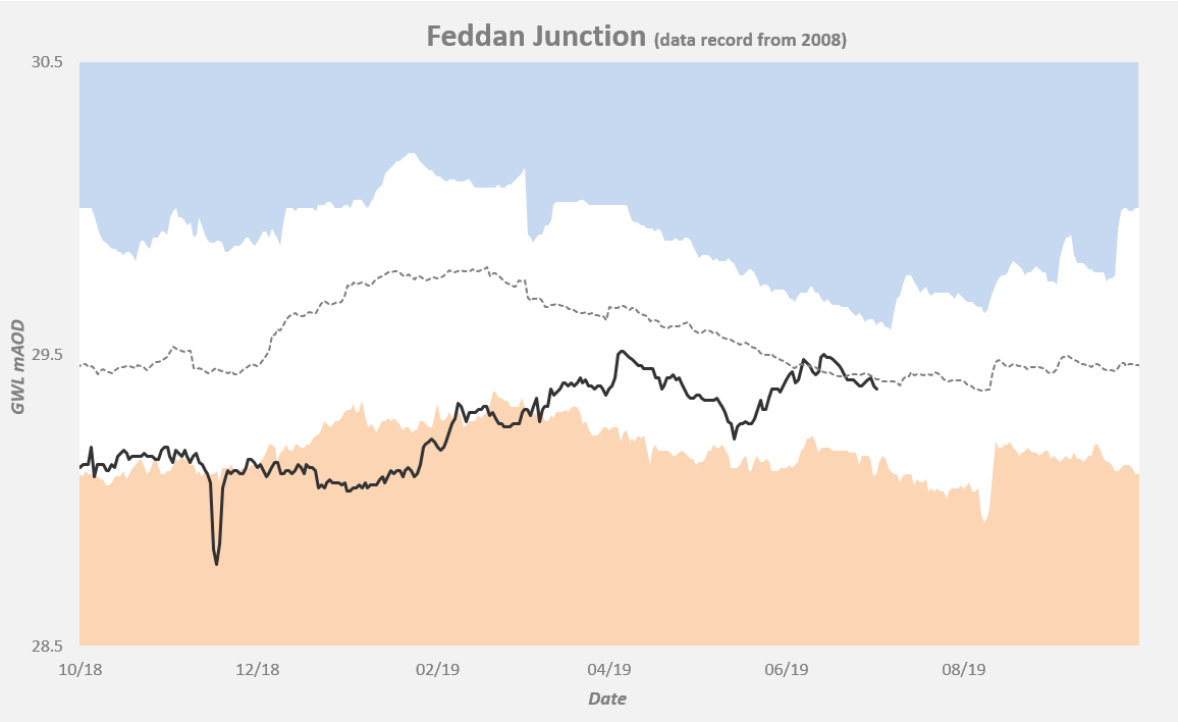
South-west

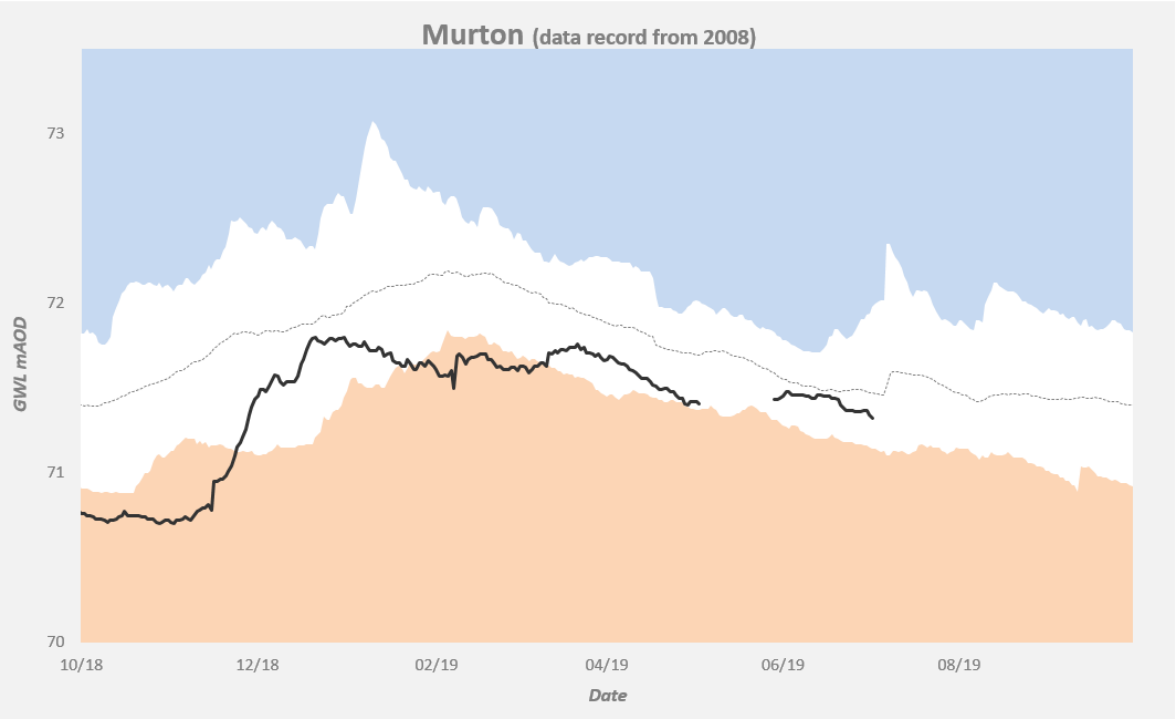
Groundwater levels

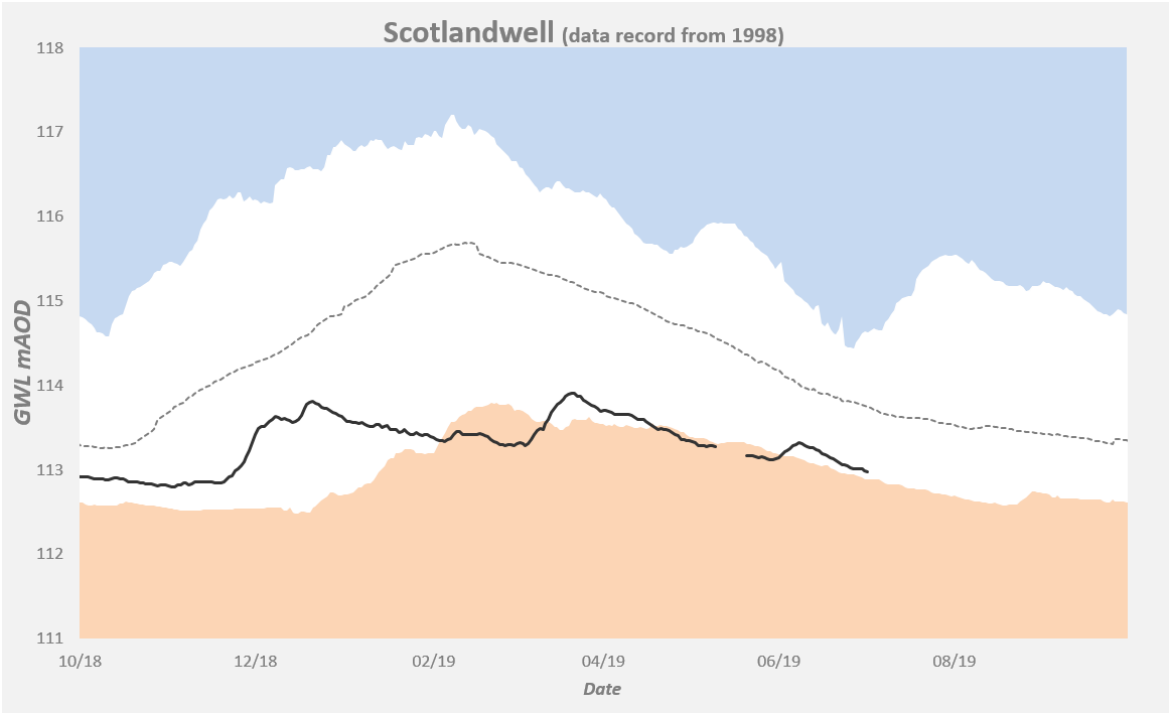
Groundwater levels in this region are average for this time of year.

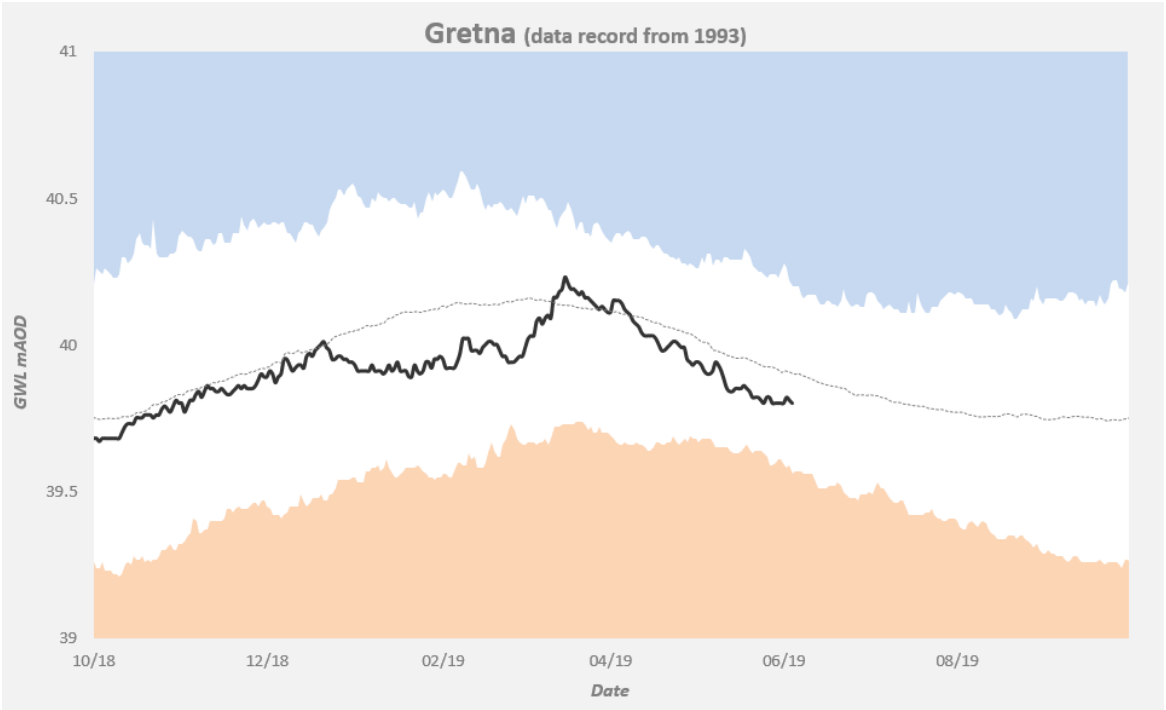
These charts show the trend in groundwater and loch levels since autumn 2018 at selected monitoring sites in the northeast (see map above). The white zone represents the observed range in the long-term record. The black line shows the actual groundwater level and the dashed line is the long-term average trend.

Record high groundwater level
Normal groundwater level range
Record low groundwater level






Scotlandwell (data record from 1998)
118
117
116
115
114
113
112
111
GWL mAOD
10/18
12/18
02/19
04/19
06/19
08/19
Date


Gretna (data record from 1993)
41
40.5
40
39.5
39
GWL mAOD
10/18
12/18
02/19
04/19
06/19
08/19
Date