

## HEADLINE

**There is a MEDIUM risk of water scarcity in 2019 in Northeast catchments and a LOW risk further south along the east coast. The risk is lower elsewhere.**

### Situation summary

At the beginning of this winter SEPA issued an Early Warning for potential water scarcity in 2019 across much of the east of the country. Groundwater storage was low following the dry conditions of 2018 so sufficient winter recharge was crucial to avoid further impacts in 2019.

Following an extremely dry start to the year, March has seen some much needed rainfall. In the borders regions March rainfall has been nearly double the long-term average. Further north rainfall has been average or above this month.

This has provided some late-winter recharge to groundwater and loch storage. Loch levels are all within the normal or above range. Groundwater levels have responded to the rainfall, but along the east coast, and in the northeast particularly, levels are still relatively low for this time of year.

The risk level has been downgraded from High to Medium in the northeast region, and further south the risk level has also lowered from last month. However, there is still a reasonable chance that we may see water scarcity impacts this year if dry conditions return in the months ahead.

See below for an explanation of the assessed Water Scarcity Risk Level.

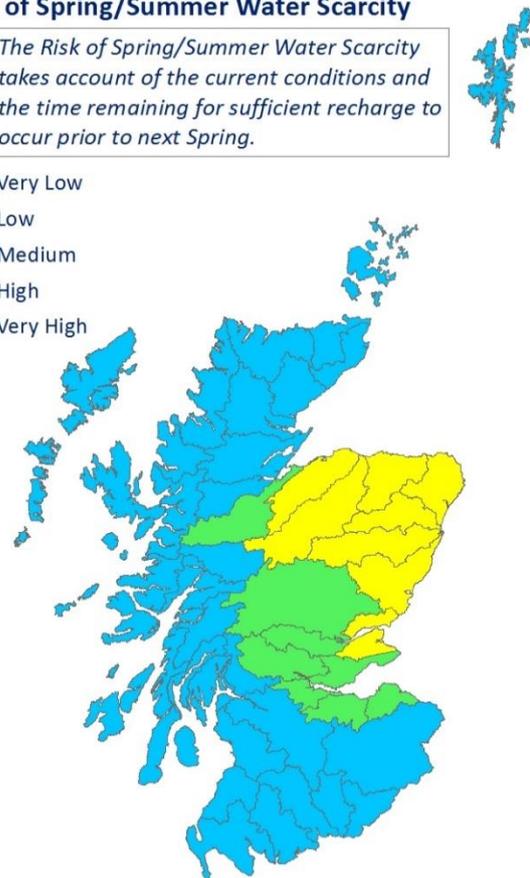
Forecast - from Met Office 3-month outlook last updated 25<sup>th</sup> March 2019.

The three month forecast suggests that below-average rainfall is slightly more likely than above-average rainfall, across the UK for the April-June period. For further details on the seasonal forecast see the latest report at <https://www.metoffice.gov.uk/services/public-sector/contingency-planners>.

### **Risk of Spring/Summer Water Scarcity**

 *The Risk of Spring/Summer Water Scarcity takes account of the current conditions and the time remaining for sufficient recharge to occur prior to next Spring.*

-  Very Low
-  Low
-  Medium
-  High
-  Very High



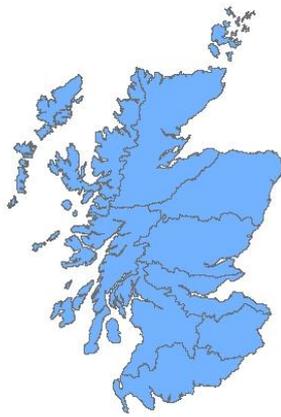
SEPA will continue to monitor the situation and update this report monthly. The report will be available on the [Water Scarcity section of SEPA's website](#).

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

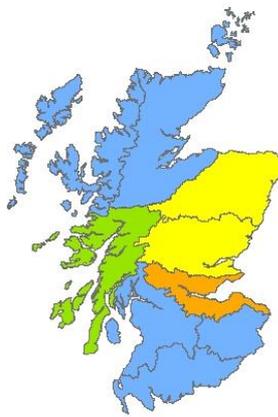
24/03/2019

### Precipitation Indices

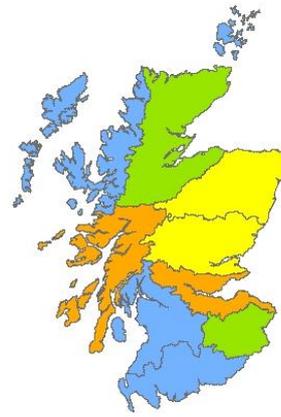
Rainfall over the past 30 days



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

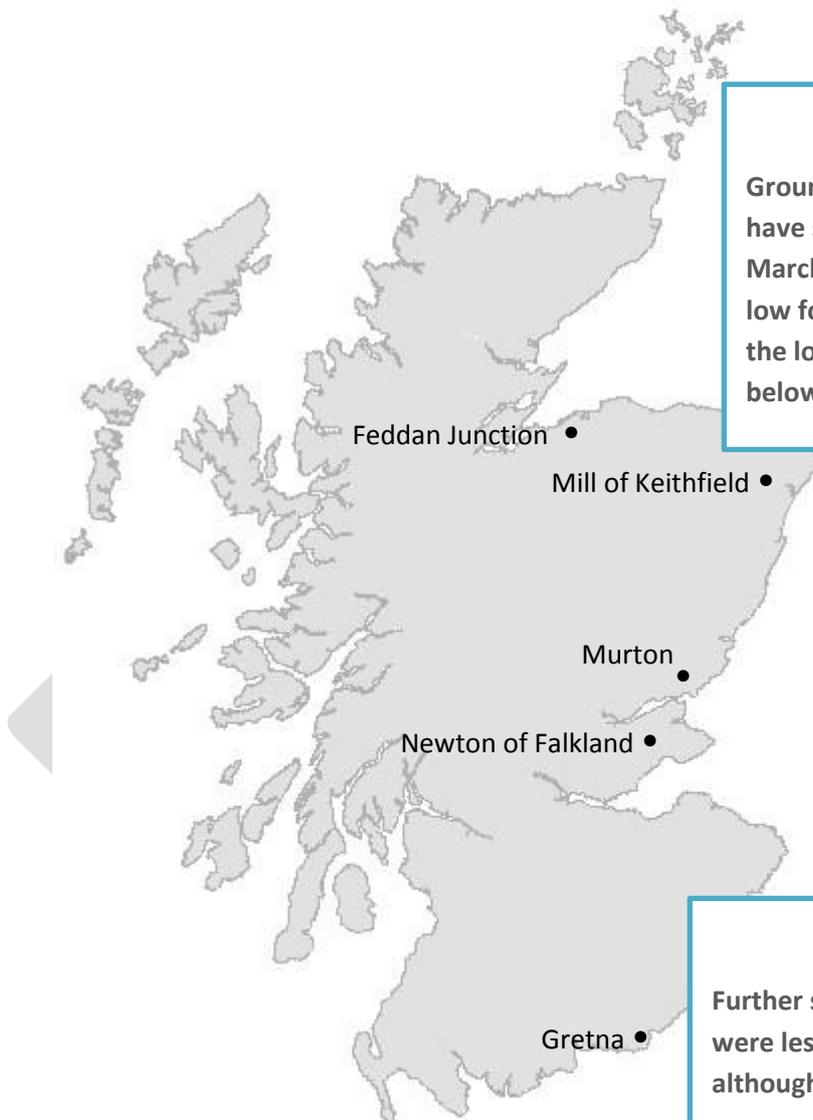




## Natural water storage situation

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 East - East

Groundwater levels in the Northeast have shown some further recovery in March. Levels they are still relatively low for the time of year compared to the long-term record (see the graphs below as an example).

### South

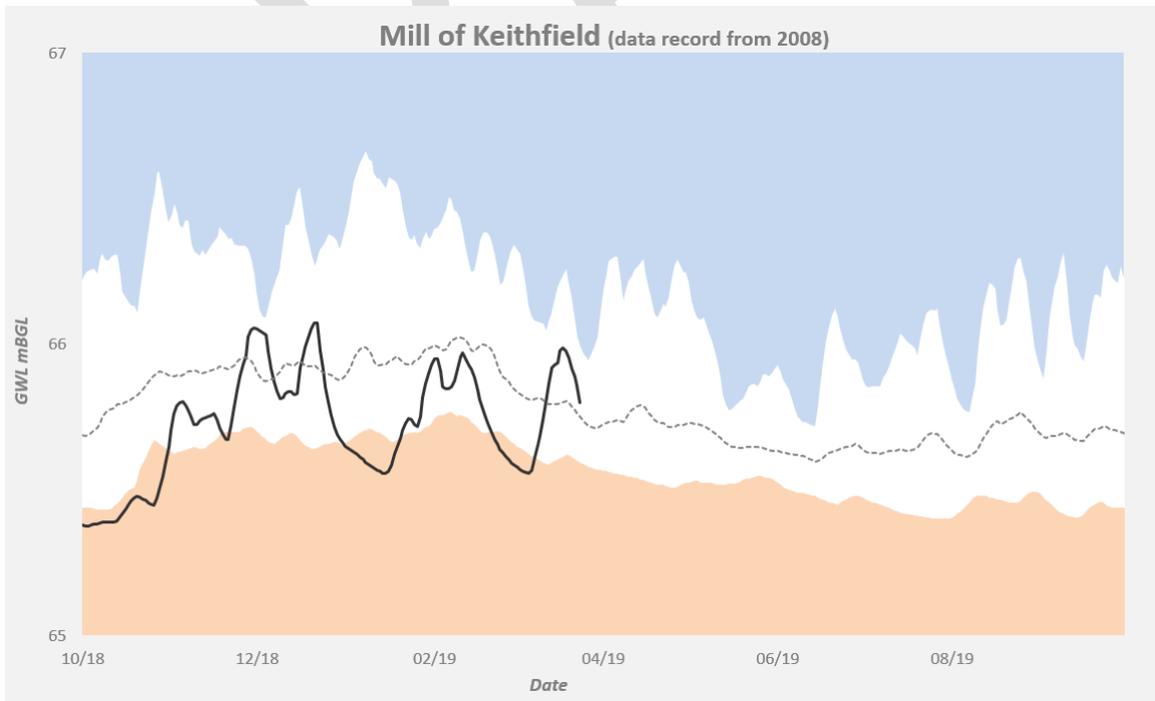
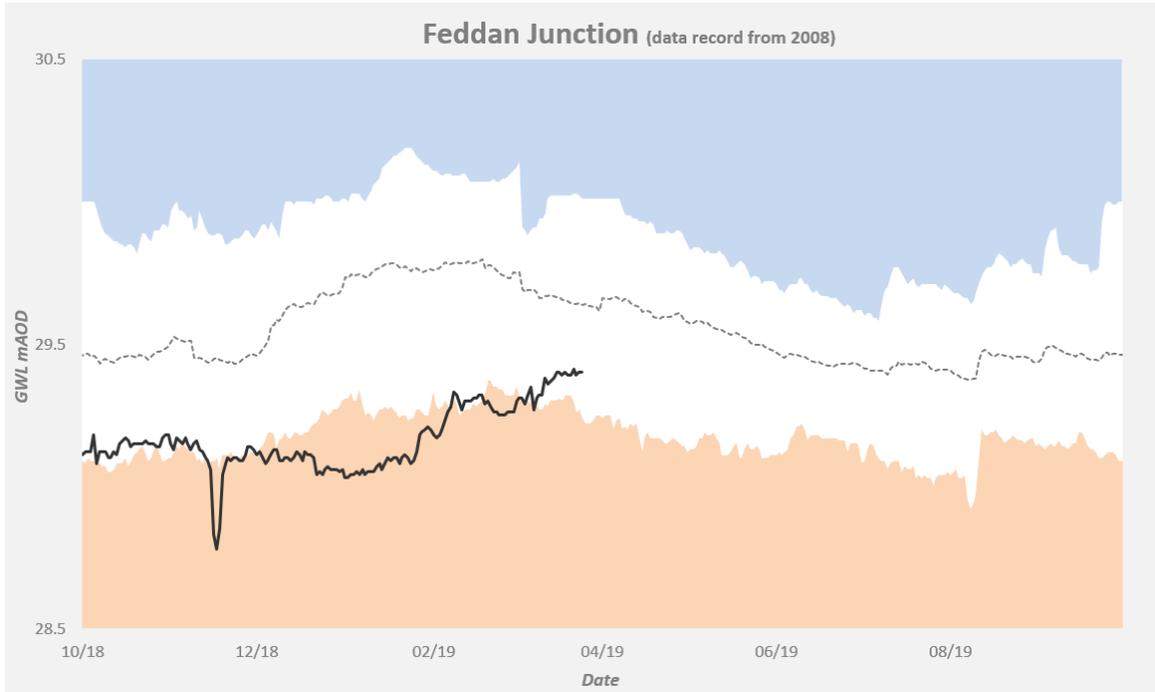
Further south, groundwater levels were less impacted through 2018, although still relatively low in places.

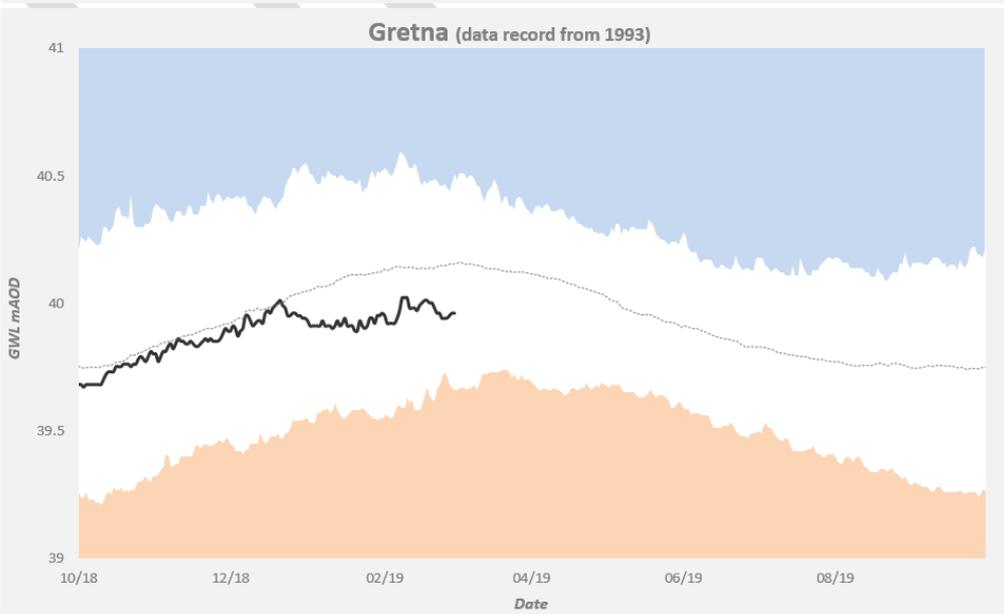
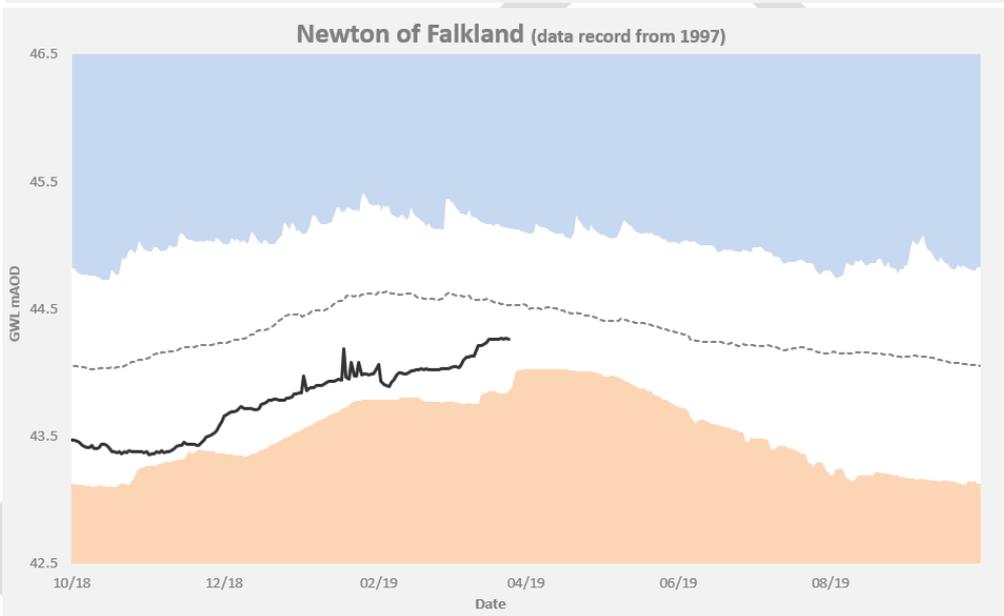
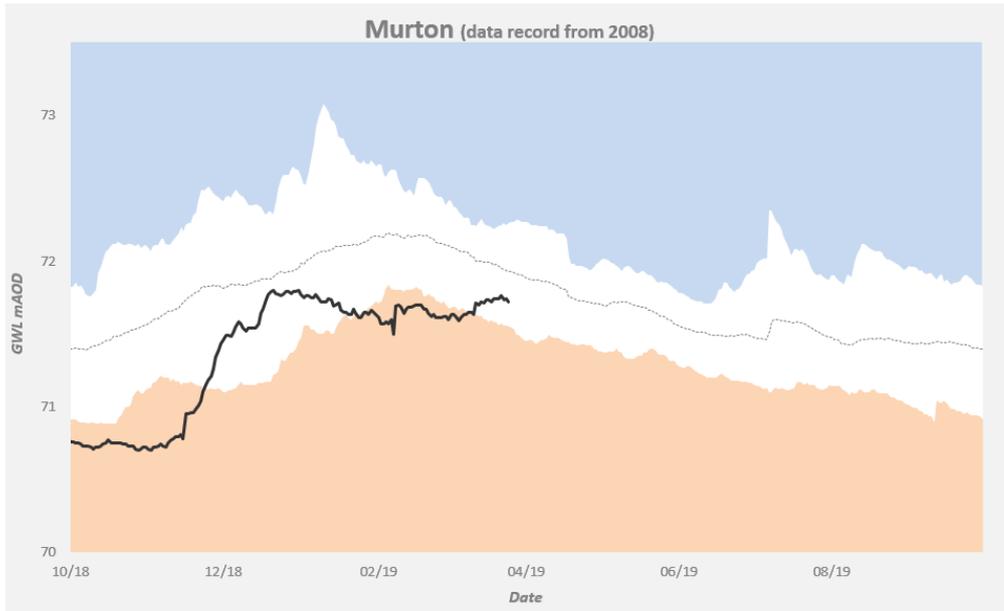
Given the high rainfall in March it is considered likely that groundwater levels have recovered to healthy levels (although data is only available up to the end of February).



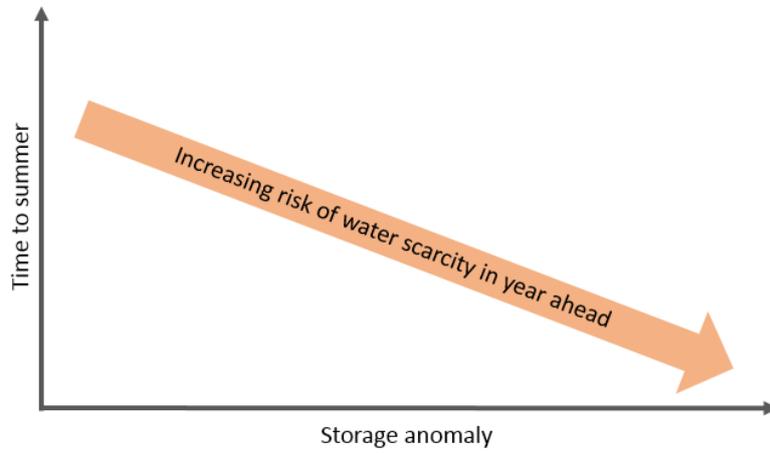
The following charts show the trend in groundwater levels since autumn 2017 at selected monitoring sites (see map above). The white zone represents the observed range in the long-term record. The black line shows the actual groundwater level and the dashed line is the long-term average trend.

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





## Water Scarcity Risk Level



*The risk of water scarcity in the year ahead is set considering both the current anomaly in water storage (groundwater and lochs) and the time left before the spring/summer period. Therefore this factors in both the amount of increased rainfall required to avoid impacts and accounts for the time remaining for such a wet period to occur and reduce the storage deficit.*

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