

# Flooding from Groundwater

Hampshire

6th December 2019

## New for 2019

We've made a groundwater graph website, which will enable you to see our latest data and compare it to average, minimum and maximum groundwater levels. We have also included some impact thresholds and rainfall data. This means you will no longer have to wait for us to update our graphs in the briefing notes. You can see what is happening locally any time you wish.

There is a page for each community, showing the trend at an indicator borehole. The information is updated by 08:00 every day. You can hover over the graph to interrogate the detail and values.

We've also provided a graph which gives you the option of viewing the data between any date range in the last 1.5 years.

Groundwater Briefing Notes, Flood Alerts and Warnings will appear on the pages when they are issued.

We will continue to provide our assessment and commentary on what is happening through our Briefing Note and Flood Alert service.

Please note that the observed groundwater level and rainfall data shown on the website is 'raw'. It has not undergone any quality assurance by ourselves. Use it indicatively.

The website is in its infant stages and we will seek to improve it over time. It runs best if opened in Google Chrome.

Please let us know what you think or how we can improve it by using the 'Contact Us' link.

Graphs for Basingstoke and Alton will be uploaded in the next couple of weeks.

<https://sites.google.com/view/groundwatergraphs/home>

## Current situation

In Hampshire, there are no Groundwater Flood Alerts in force. We do not expect groundwater flooding impacts to occur in December 2019.

The last groundwater recharge season (2018/19) was poor and levels have remained below average for most of 2019. It meant that starting conditions for recharge this year were low.

Autumn 2019 has been wet, with above average rainfall recorded in September, October and November. In that time, 360mm has been recorded at Otterbourne, which is 155% of the long term average. There has been a dry and cold start to December.

The table below shows rainfall data values recorded at Otterbourne, near Winchester, up to 6th December 2019 (this gauge is used statistically for comparisons because of its very long term record).

| Month     | Hampshire at Otterbourne (near Winchester) |                            |                                |         |      |        |      |
|-----------|--------------------------------------------|----------------------------|--------------------------------|---------|------|--------|------|
|           | Total rainfall                             | Long Term Average Rainfall | % of Long Term Monthly Average | Wettest |      | Driest |      |
|           | (mm)                                       | (mm)                       |                                | mm      | year | mm     | year |
| September | 118                                        | 71                         | 166%                           | 233.9   | 1949 | 1.8    | 1959 |
| October   | 144                                        | 78                         | 184%                           | 224.5   | 1903 | 4.6    | 1969 |
| November  | 97                                         | 83                         | 117%                           | 244.0   | 2002 | 8.9    | 1945 |
| December  | 1.1                                        | 91                         | 1.2%                           | 245.9   | 1934 | 8.9    | 1926 |

Whilst the rainfall data at Otterbourne can be used as an indication of rainfall across Hampshire, there has been some geographic variation in the distribution of rain across the county in the last few months.

As such, the picture is now mixed in respect of groundwater levels. Sites are either below, at, or above long term average for the time of year.

Communities where levels are above average are;

Basingstoke  
Alton  
Sutton Scotney and Chilbolton  
Bishop's Sutton  
Preston Candover  
Twyford, Bramdean, Cheriton  
Meon Valley  
Hambledon  
Finchdean, Deane Lane End, Rowlands Castle

Whilst some groundwater levels continue to rise, the rate of rise has now slowed. Most sites have or are just stabilising from the rain which has fallen over the last 3 months.

**Customer service line**  
**03708 506 506**  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

**Incident hotline**  
**0800 80 70 60**

**Floodline**  
**0345 988 1188**

## Forecast risk of flooding

The current weather forecast is for a relatively small amount of rain (5-9mm) to affect Hampshire today (Friday 6 December 2019). The outlook until Sunday 15th December 2019 is for generally unsettled conditions, with heavy rain at times or blustery winds and showers.

Long term weather forecasting is extremely difficult. There are some predictions to suggest that this winter could be wetter than average.

As ever, the impact from rising groundwater levels will vary depending on the exact amount, intensity and location of rainfall over the next few months. As such, there could be several outcomes;

1. Given the current height of the groundwater, and importantly, the length of time still left for it to rise over winter and spring (5 months), it seems probable that some impacts (even if minor) will occur in some communities this season. With average rainfall in December and early January, onset of groundwater flood impacts could occur towards the end of January early February 2020 in some locations. Very heavy rainfall would force impacts sooner.

2. A continuation of above average rainfall over the next 2-3 months, would cause widespread groundwater flood impacts to a large number of communities in 2020.

3. If we experience a prolonged cold and dry period, we might have no groundwater flooding this winter.

The graphs below show data from some of our key indicator boreholes up to the 6th December 2019. Current water levels (shown in red) are compared to long term average data.

(Note: the data shown on these graphs is representative of groundwater levels impacting communities. We have an extensive groundwater monitoring network. In our assessment of flood risk, we use data from many sites along with data from the key indicator boreholes).

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## Basingstoke, Crondall and Alton

Graphs for Basingstoke and Alton will be produced for the next Briefing Note. They will be uploaded to our groundwater website as soon as they are available in the next few weeks.

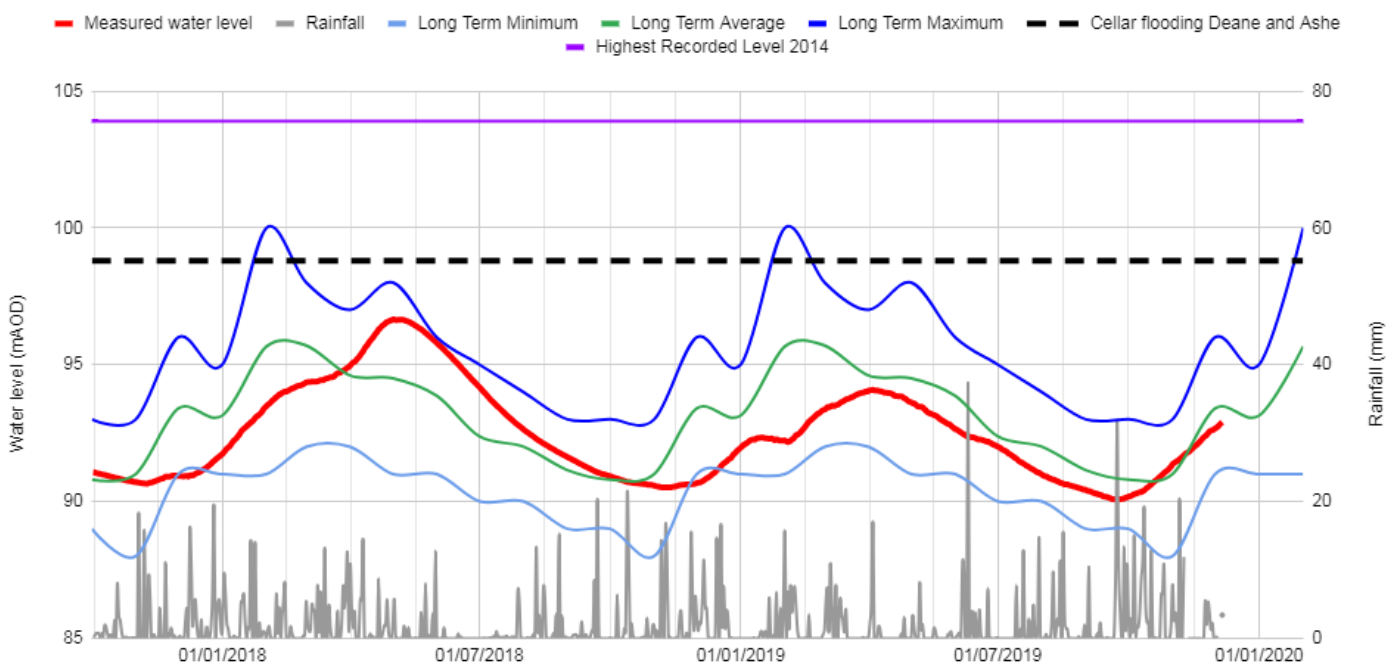
In Basingstoke, groundwater levels are above average for the time of year. Recharge has occurred earlier in the season compared to recent years. The level has risen by 2.18 since the start of October. There is a steady, gentle rise. Levels need to increase by a further 4.8 metres before we would be concerned about flood impacts in the communities.

In Farringdon, groundwater levels are above average for the time of year. The level has risen by 7.40 metres since the start of October. The rate of rise is slow, and mirrors previous years. Levels need to rise by a further 9.2 metres before we would be concerned about flood impacts in the communities.

## Deane and Ashe, North East Hampshire

Groundwater is below average for the time of year. The level has risen by 1.55 metres in the last month. It should stabilise in the next few days. It needs to rise by a further 5.7 metres before we would be concerned about flood impacts in the community.

### Groundwater levels at Oakley



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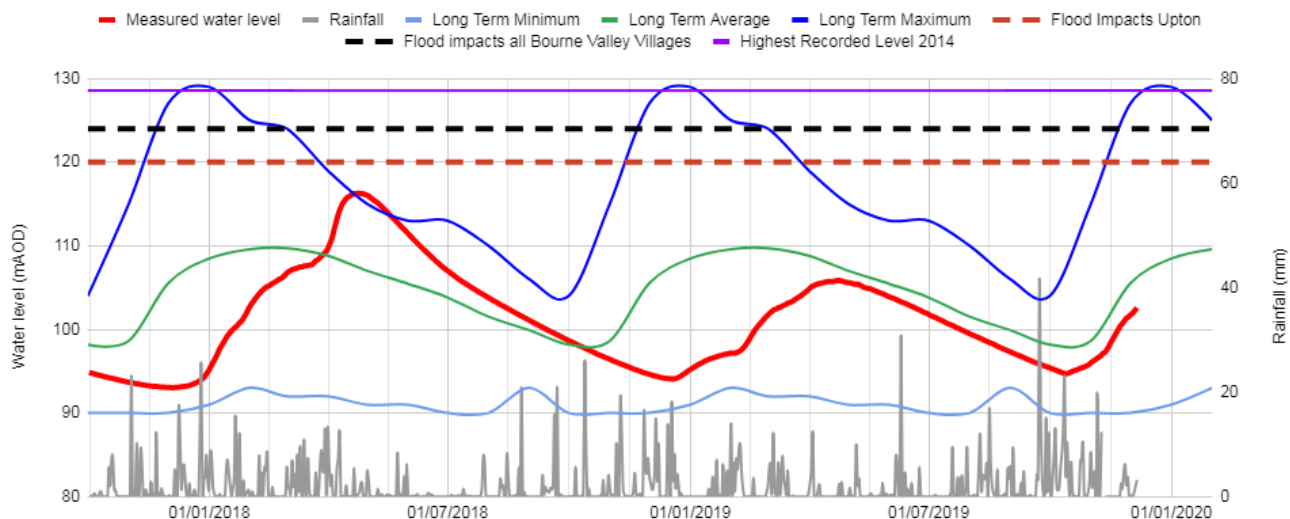
Floodline

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## Bourne Valley

Groundwater is below average for the time of year. The level has risen by 6.4 metres in the last month. It is just stabilising. It needs to rise by a further 15 metres before we would be concerned about flood impacts in the community.

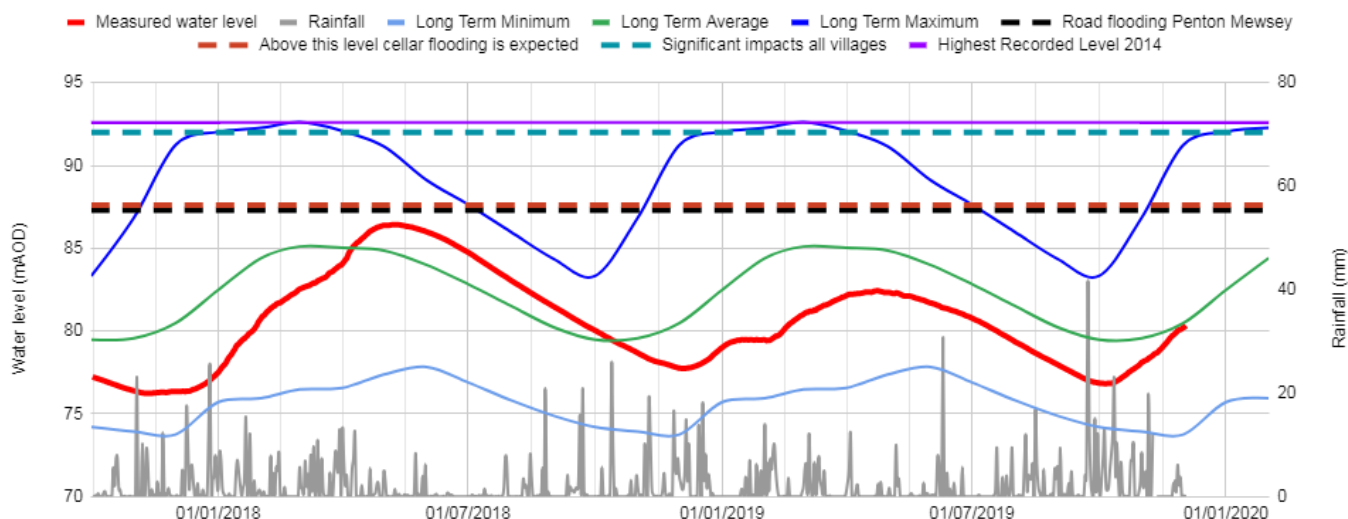
### Groundwater levels at Vernham Deane



## Villages Surrounding Andover

Groundwater is average for the time of year. The level has risen by 2.4 metres in the last month. It is just stabilising. It needs to rise by a further 6.6 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at Clanville Gate



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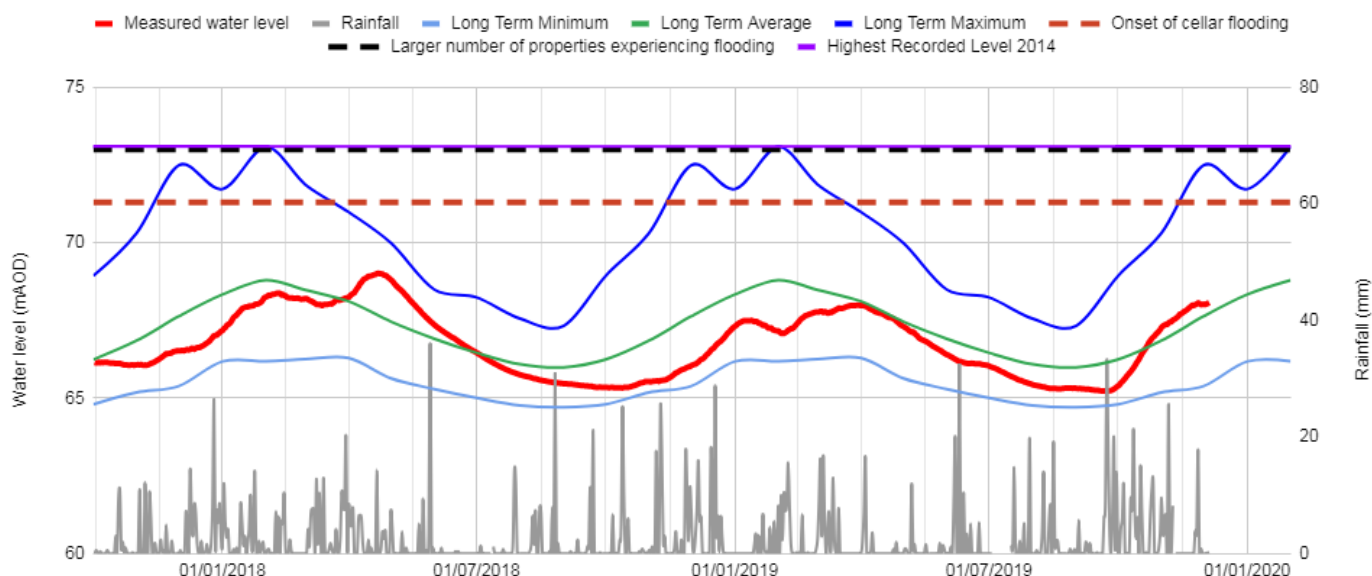
Floodline

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## Sutton Scotney and Chilbolton

Groundwater is above average for the time of year. The level has risen by 0.85 metres in the last month. It is just stabilising. It needs to rise by a further 3.8 metres before we would be concerned about flood impacts in the communities.

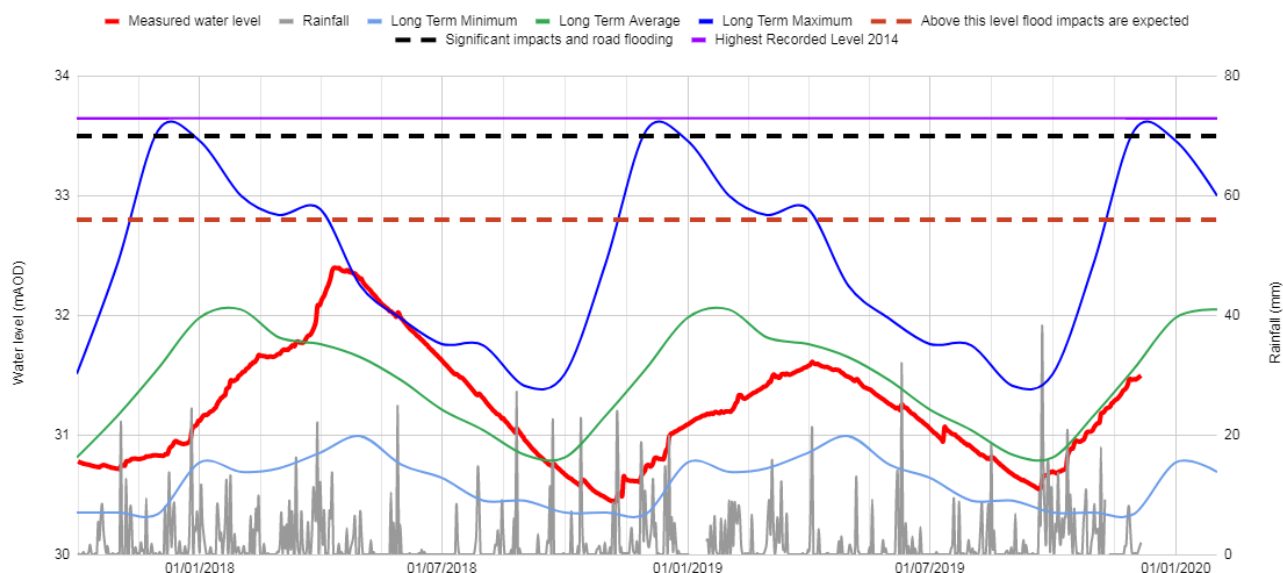
### Groundwater levels at Upper Cranbourne



## King's Somborne

Groundwater is below average for the time of year. The level has risen by 0.44 metres in the last month. The level is now stable. It needs to rise by a further 1 metre before we would be concerned about flood impacts in the community.

### Groundwater levels at King's Somborne



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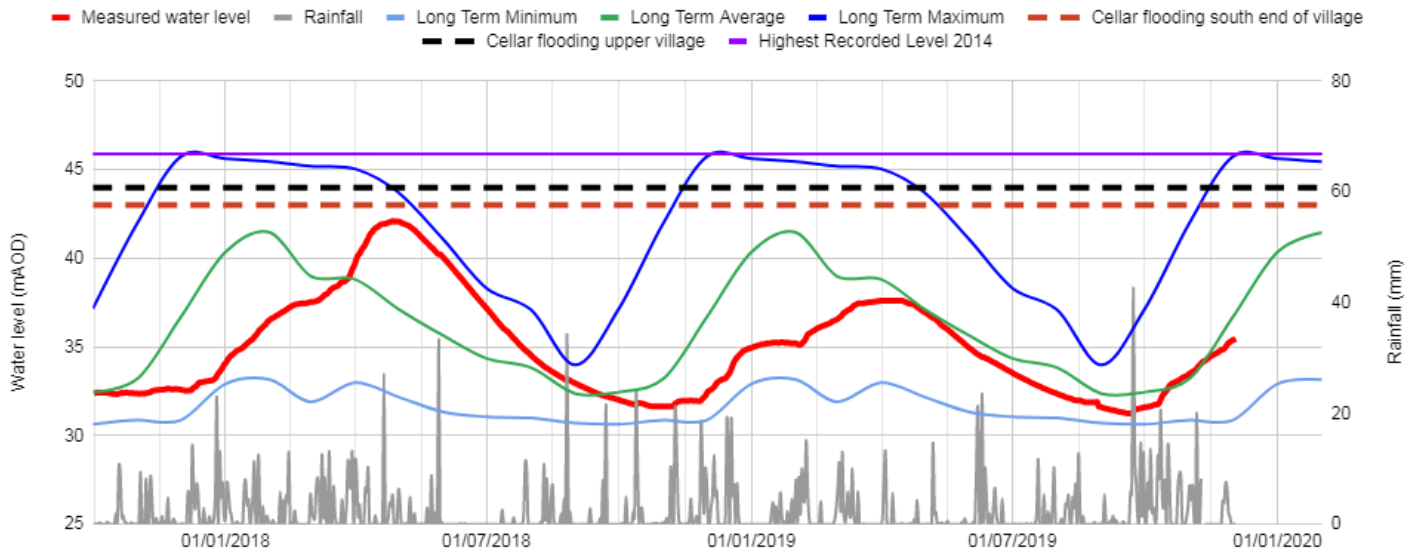
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## Hursley

Groundwater is below average for the time of year. The level has risen by 2.10 metres in the last month. The level should stabilise over the next few days. It needs to rise by a further 5.5 metres before we would be concerned about flood impacts in the community.

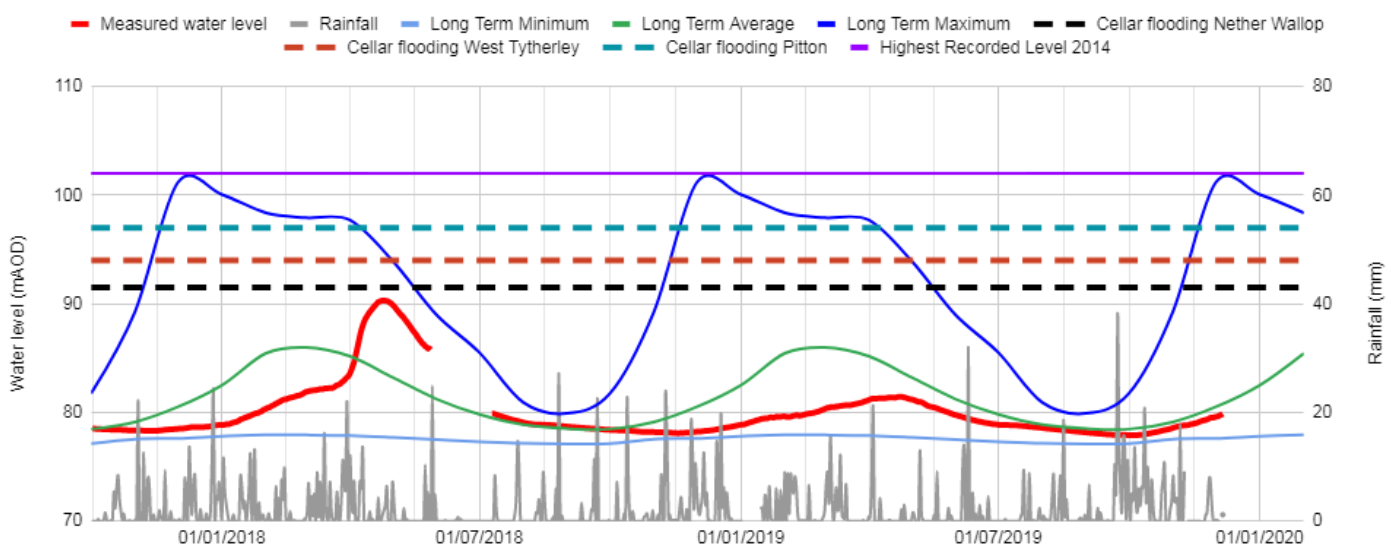
### Groundwater levels at Hursley



## Pitton, West Tytherley, Broughton

Groundwater is below average for the time of year. The level has risen by 1.20 metres in the last month. The level should stabilise over the next few days. It needs to rise by a further 11 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at Lopcombe Corner



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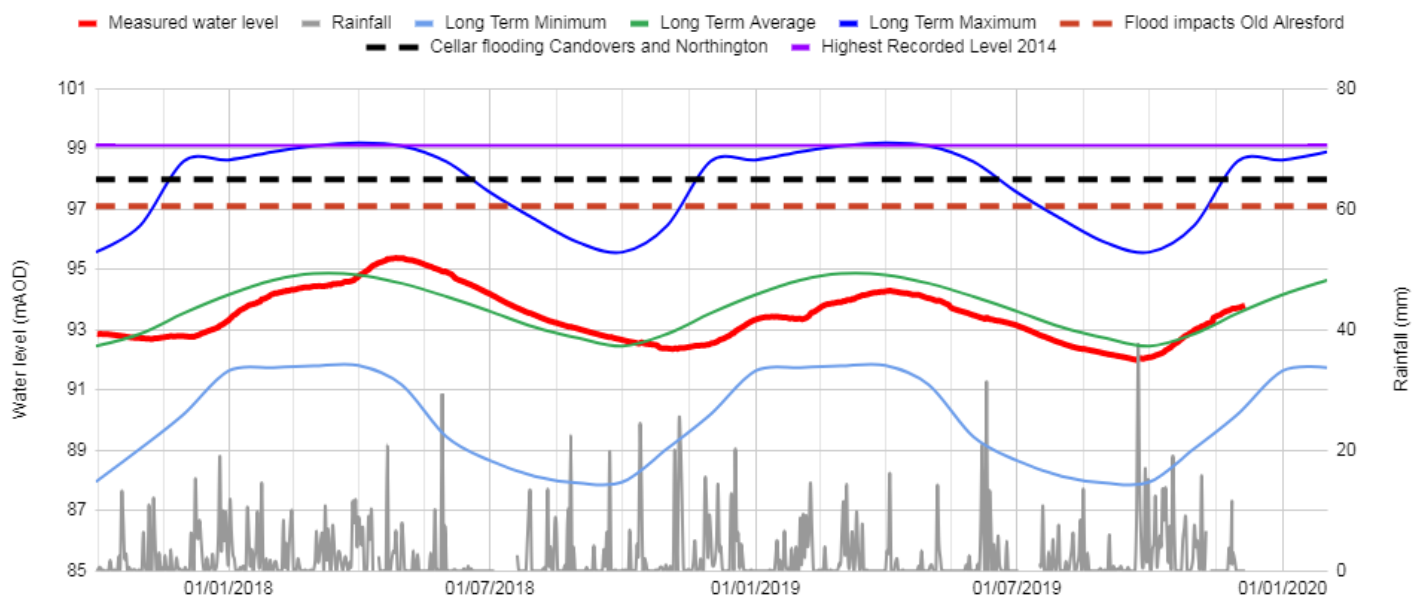
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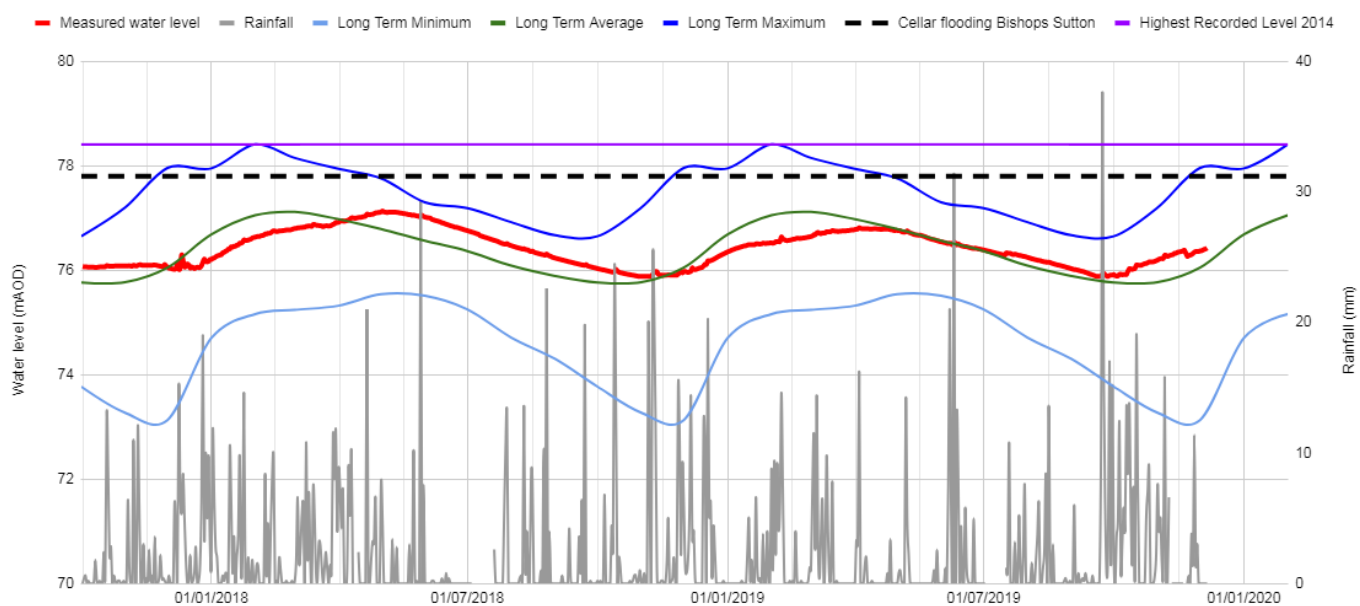
## Preston Candover and Bishop's Sutton

Groundwater is above average for the time of year. At Preston Candover, the level has risen by 0.84 metres in the last month. At Bishops Sutton it has risen by 0.22 metres in the last month. The level should stabilise over the next few days. At Preston Candover it needs to rise by a further 3.2 metres and at Bishops Sutton by 1.13 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at Preston Candover



### Groundwater levels at Bishop's Sutton



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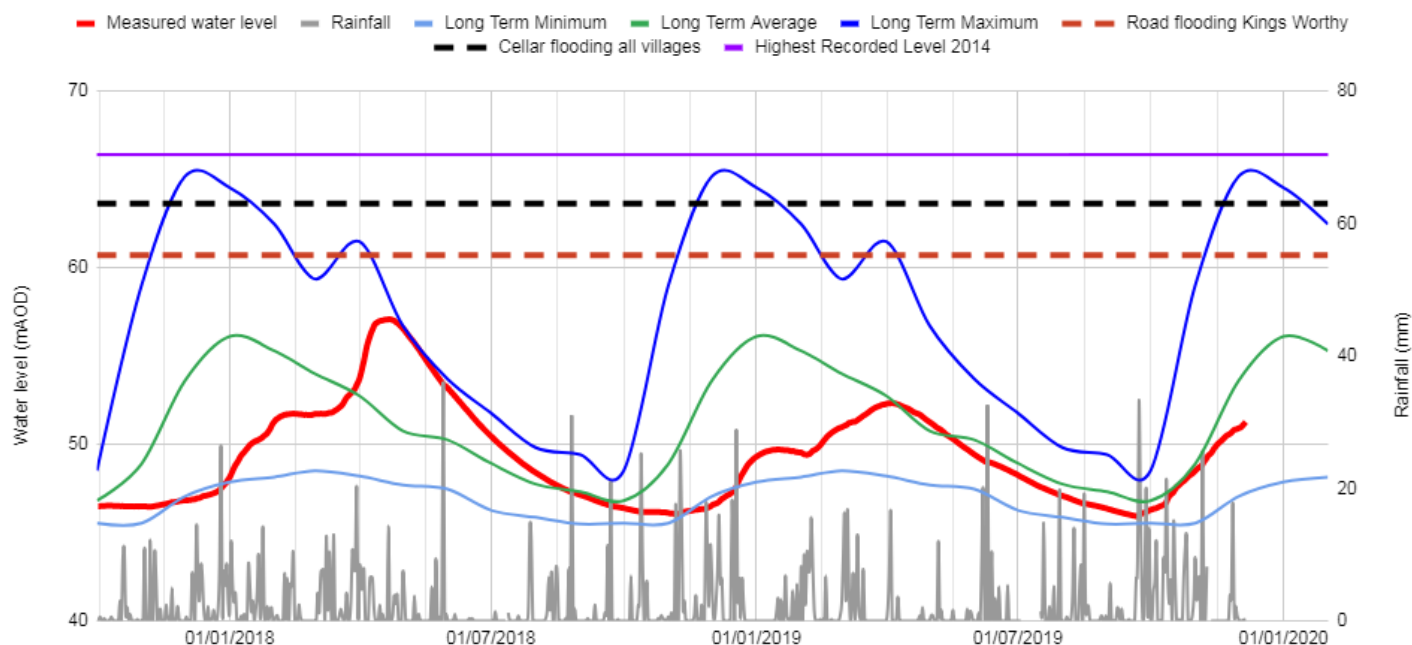
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## Littleton, Headbourne, Kings Martyr Worthy, Chilland and Easton

Groundwater is below average for the time of year. The level has risen by 2.66 metres in the last month. The level should stabilise over the next few days. It needs to rise by a further 7.9 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at Harestock



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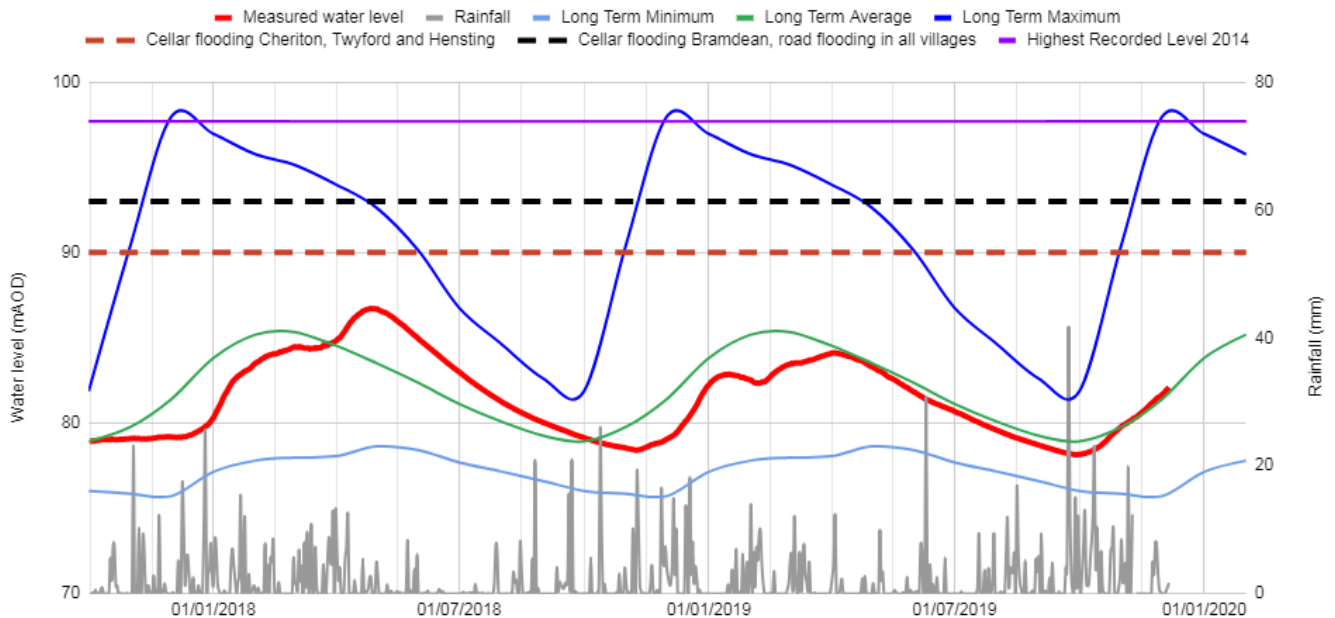
Incident hotline  
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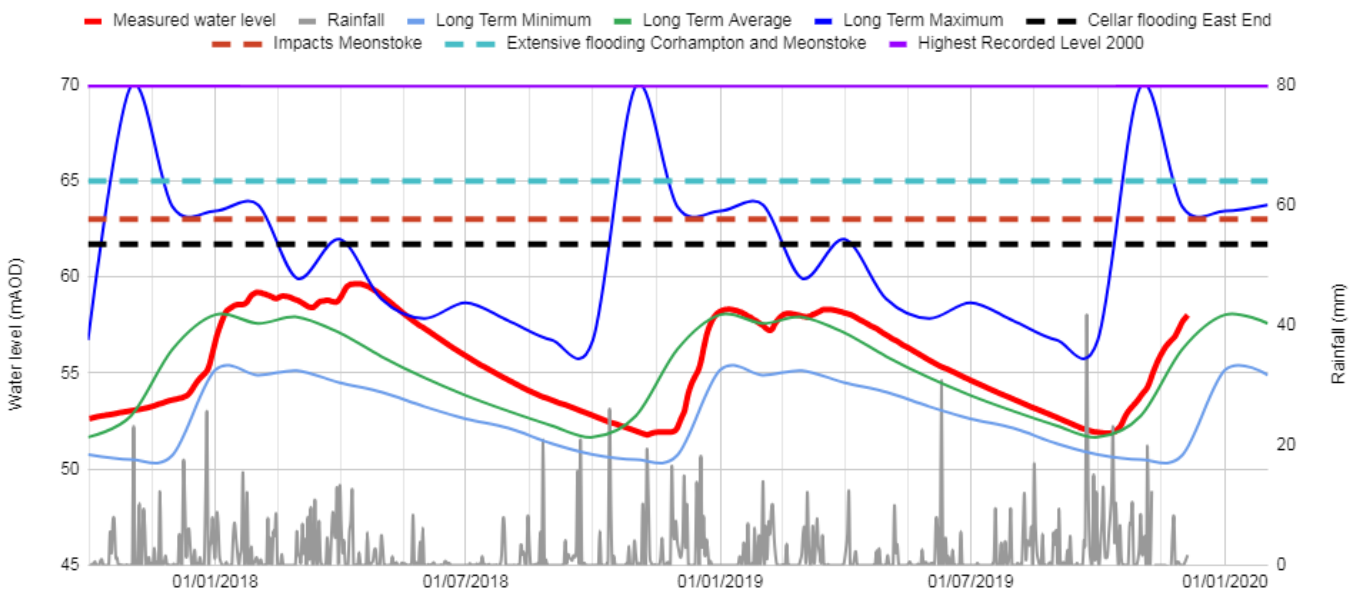
## Meon Valley, Bramdean and Chertion, Twyford and Hensting

Groundwater is marginally above average for the time of year. The level has risen by 2.2 metres in the last month. The level should stabilise over the next few days. It needs to rise by a further 8 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at West Meon Hut



### Groundwater levels at Pound Lane



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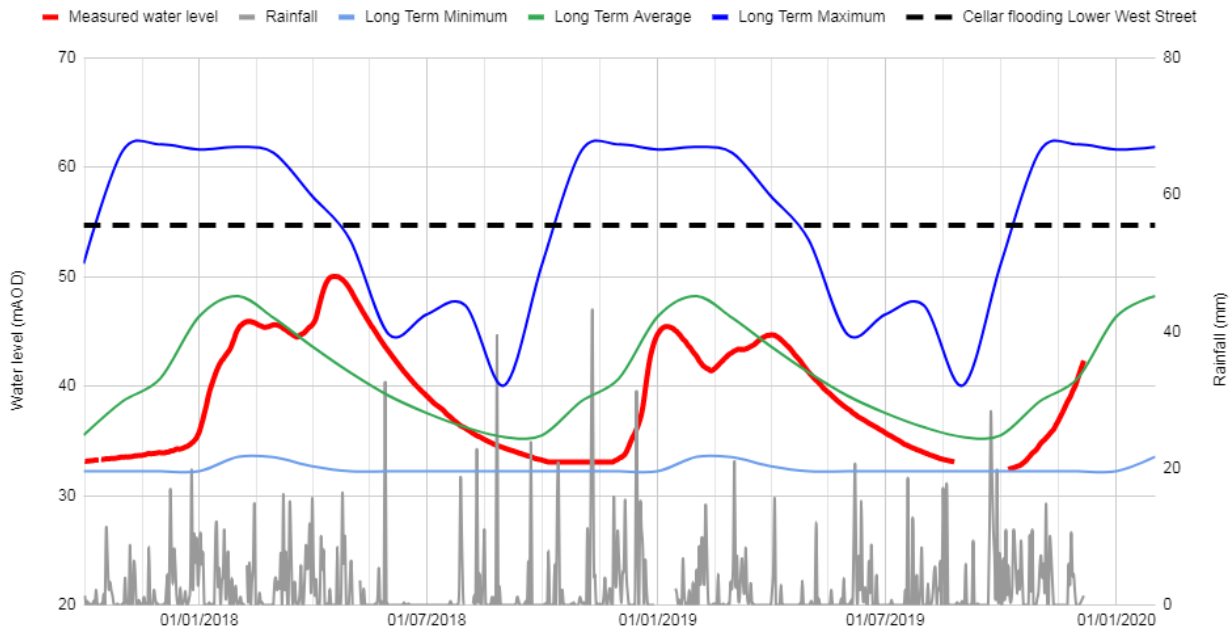
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## Hambledon

In Hambledon, groundwater is marginally above average for the time of year. At Whitedale, the level has risen by 7.2 metres in the last month. The level should begin to stabilise over the next few days. It needs to rise by a further 11 metres before we would be concerned about flood impacts in the community.

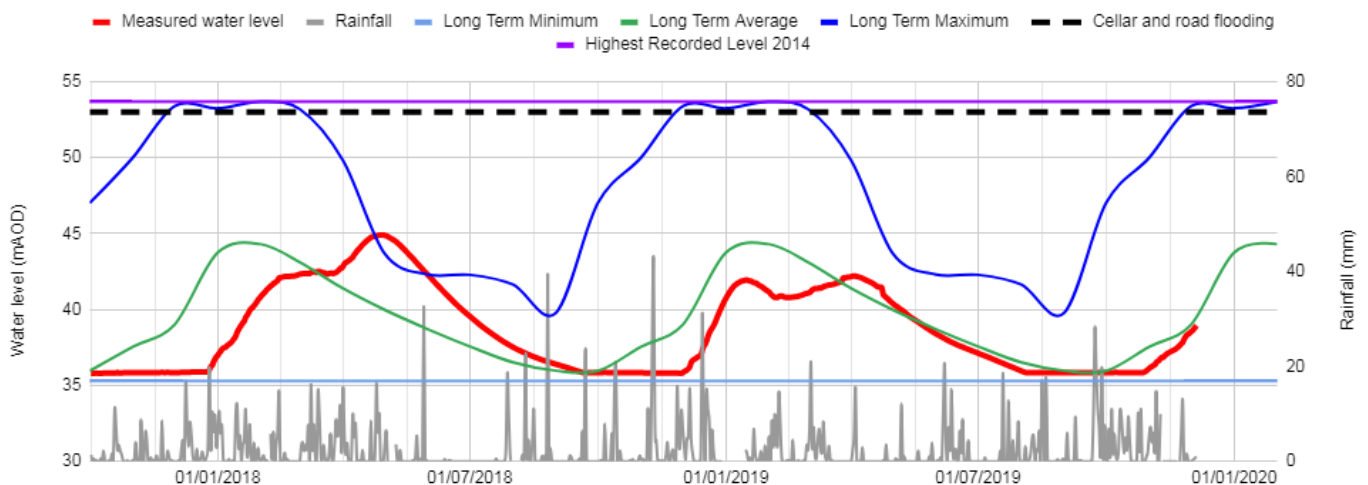
Groundwater levels at Whitedale Farm



## Denmead

In Denmead, groundwater is below above average for the time of year. The level has risen by 2.8 metres in the last month. The level should stabilise over the next few days. It needs to rise by a further 12 metres before we would be concerned about flood impacts in the community.

Groundwater levels at Rookwood Farm



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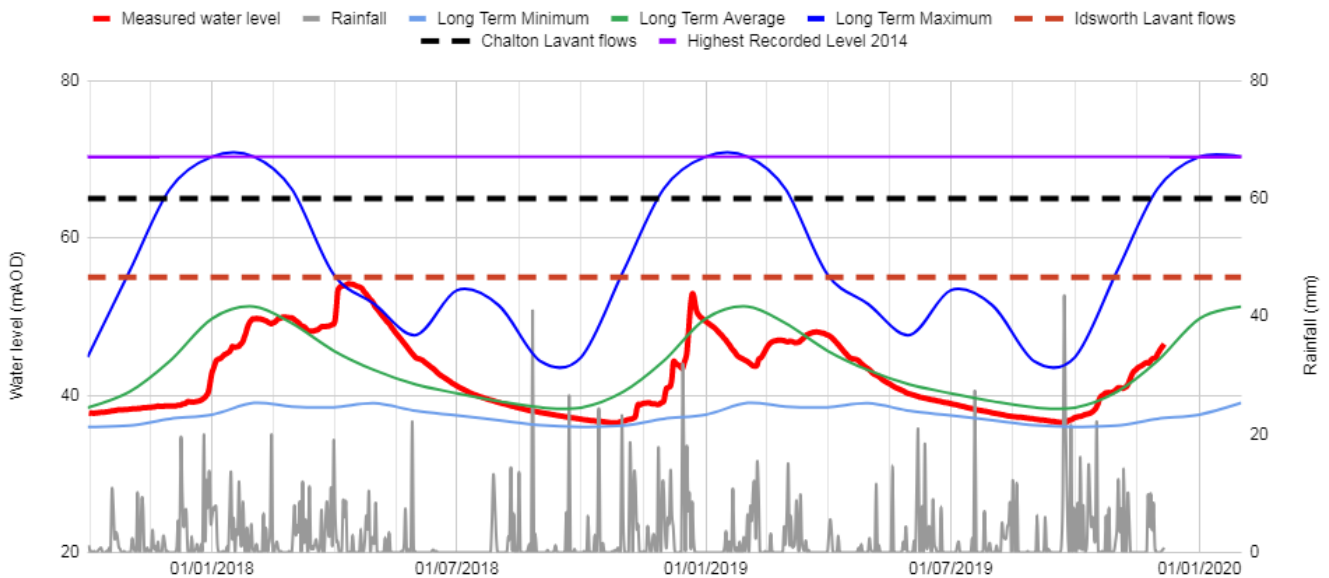
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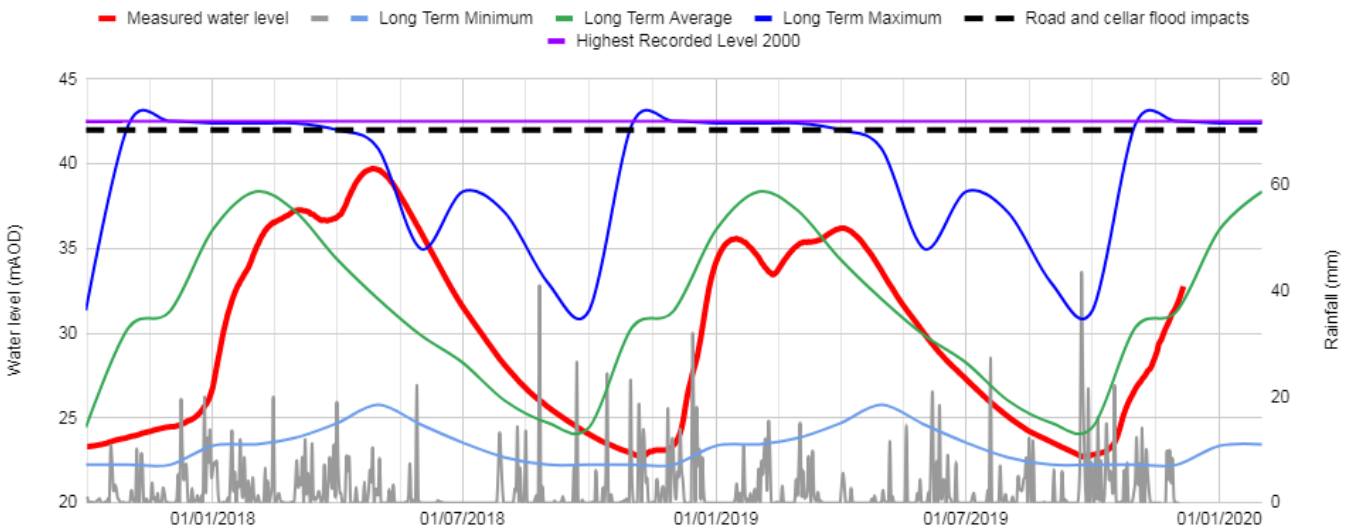
## Finchdean and Rowlands Castle

In Finchdean and Rowlands Castle, groundwater is marginally above average for the time of year. At Finchdean, the level has risen by 5.7 metres in the last month. It is unlikely to stabilise for another 7 days. It will need to rise by a further 8.71 metres before we would be concerned about flood impacts in the communities.

### Groundwater levels at Chalton



### Groundwater levels at Carpenters Finchdean



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## What we're doing

We will continue to monitor the levels and their response to further rainfall. We will be using our technical knowledge and experience alongside our flooding procedures to assess the risk of flooding.

We will issue Flood Alerts to communities when flood risk to property increases.

## Actions and Advice

1. Keep an eye on the latest rainfall and groundwater levels on our website

<https://sites.google.com/view/groundwatergraphs>

2. Property owners should think about what you'll do if flooding occurs where you live, don't wait until flooding happens. We have a [leaflet](#) offering practical advice to help you reduce the impact of flooding from groundwater.

3. We offer a Groundwater Flood Alert service for the following locations. If you want to receive Groundwater Flood Alerts then please ensure you register and that you keep your contact details up to date. If you wish to amend your registration then call Floodline on 0345 988 1188 (24 hour service) or go online at <https://www.gov.uk/sign-up-for-flood-warnings>.

Bucksin, Basingstoke and Sherborne St John  
Alton and Lower Farringdon  
Crandall  
Deane and Ashe in North Hampshire  
Vernham Dean and Bourne Valley  
Villages surrounding Andover  
King's Somborne and Little Somborne  
Pitton, West Tytherly, Broughton and Nether Wallop  
Sutton Scotney and Chilbolton  
The Candovers and Old Alresford

Bishop's Sutton  
Bramdean and Cheriton  
Hensting and Twyford  
Kings Worthy, Headbourne Worthy and Littleton  
Hursley  
Meon Valley  
Hambleton  
Finchdean and Rowlands Castle  
Denmead

4. We encourage Parishes at risk to develop a community Flood Plan, identifying local issues and working with the different agencies to prepare for and respond to flooding should it occur.

5. Where safe to do so, Parish Flood Action Groups may wish to walk local watercourses and check ditches to ensure there are no blockages.

6. Please make sure you are familiar with where to view groundwater data and information on our website (see links in the section below).

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### Incident hotline

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### Floodline

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## Next Groundwater Briefing Note Update

This briefing note will be updated by 17th January 2020, or sooner if further heavy rain in December and early January, significantly increases the risk of groundwater flooding.

## Further Important Information

The latest Flood Alert information can be found on the GOV.UK website at:  
<https://flood-warning-information.service.gov.uk/map>

You can view daily groundwater levels compared to average and maximum and indicative impact thresholds on our website here:  
<https://sites.google.com/view/groundwatergraphs>  
Please note that data displayed is raw and not quality assured.

Sub daily groundwater and river levels are available on Gaugemap, [www.Gaugemap.co.uk](http://www.Gaugemap.co.uk)  
Please note that the data displayed on Gaugemap is raw data and is not quality assured.

You can see our weekly groundwater level graphs on the GOV.UK website at:  
<https://www.gov.uk/government/publications/weekly-water-levels-hampshire-west-sussex-and-isle-of-wight>

We also publish a water situation report which can be found on the GOV.UK website at:  
<https://www.gov.uk/government/publications/water-situation-report-south-east>

## Contacts

If you would like any further information on groundwater levels please contact us by emailing [ssdenquiries@environment-agency.gov.uk](mailto:ssdenquiries@environment-agency.gov.uk).

For any queries about our Flood Warning Service please contact Charlotte Creswell on 0208 4745837 or email [Charlotte.cresswell@environment-agency.gov.uk](mailto:Charlotte.cresswell@environment-agency.gov.uk).

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