

Flooding from groundwater

Sussex

6 March 2020

Current situation

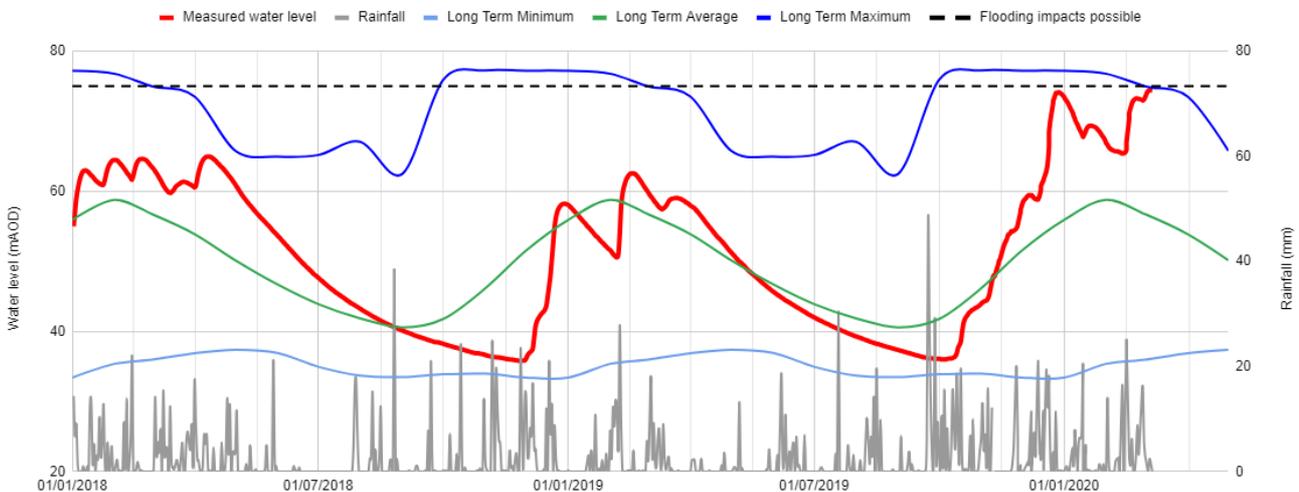
Since the last groundwater briefing note was written two weeks ago, we've measured between 60 and 100mm of rain, across Sussex. Each of the previous six months (back to and including September 2019) have measured above average rainfall. With the help of Storms Ciara and Dennis, February 2020 managed to record twice the monthly average. We've already measured half of March's long term average rainfall, in only the first six days of the month.

Groundwater levels are the highest they have been this winter (or are expected to very soon be in Patcham). Levels are as high as they have been since 2016, but not as high as they were in 2014. Groundwater levels are very close to the surface in places and minor impacts have been reported. Springs have appeared and are flowing. Properties are pumping water out of cellars. Capacity within the sewerage network has been reduced by groundwater infiltration in the Lavant Valley and Lancing.

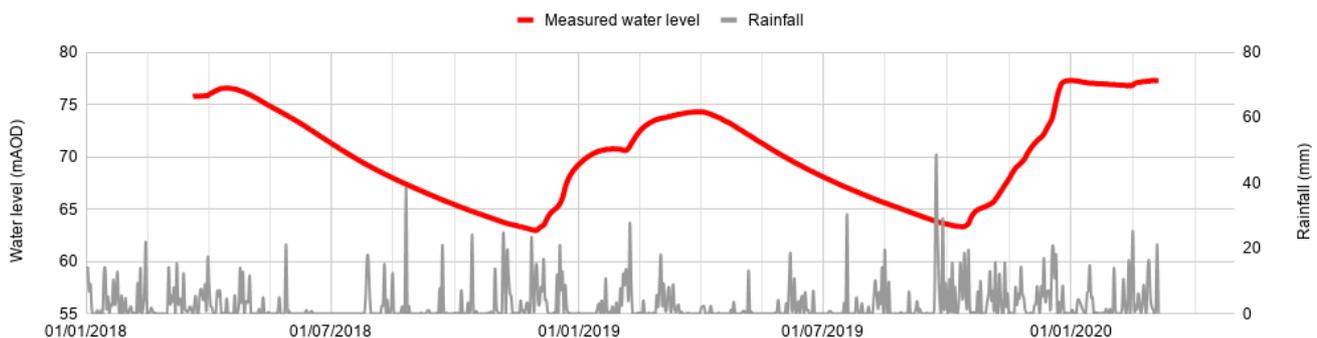
Groundwater in a lot of our indicator boreholes is still rising, in response to the rain that fell on Thursday 5 March 2020.

Groundwater levels above Chichester:

Groundwater levels at Chilgrove House

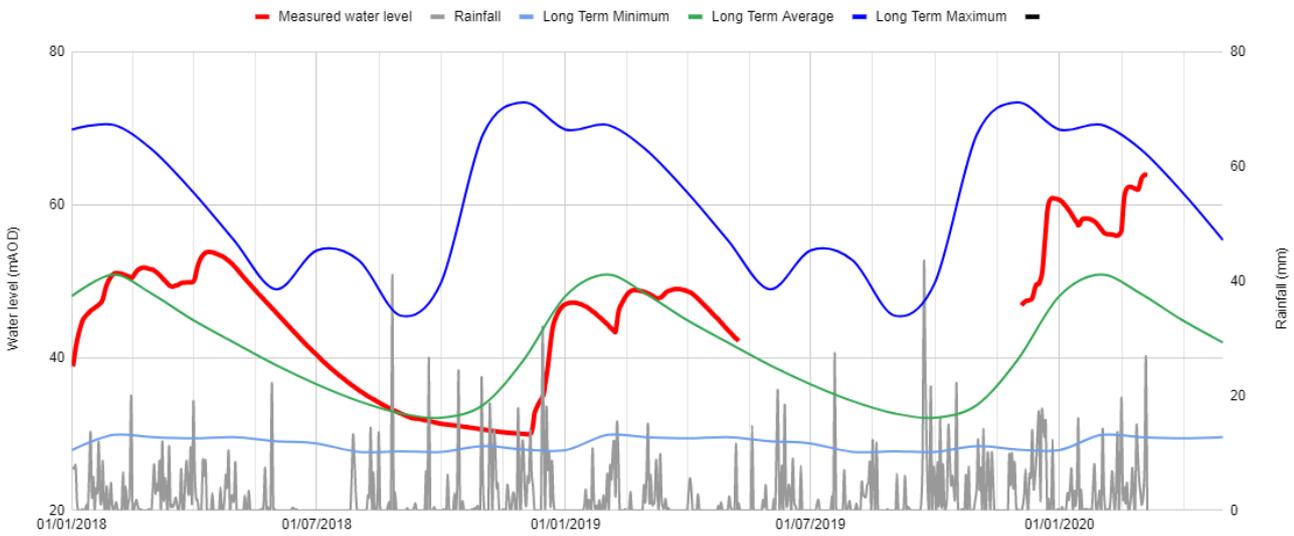


Groundwater levels at East Dean Butchers Lane



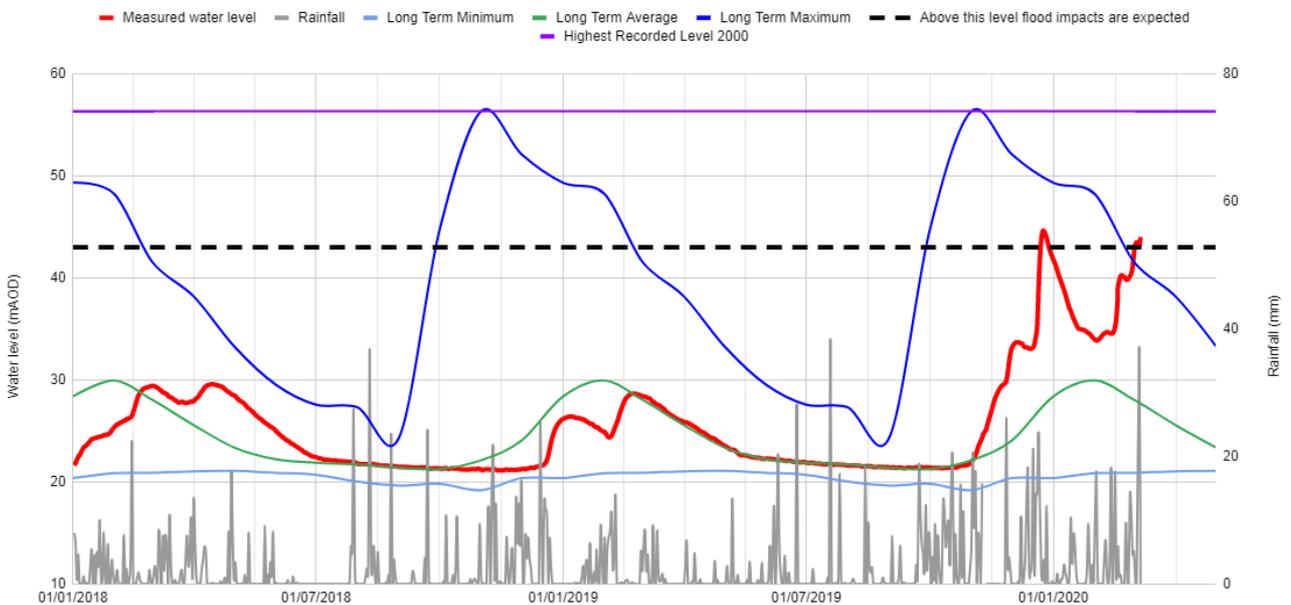
Groundwater levels in Compton, and near Stoughton and Walderton:
(please note, data was unavailable between May and December 2019)

Groundwater levels at Compton (West Sussex)



Groundwater levels near Patcham:

Groundwater levels at Ladies Mile



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03708 506 506

incident hotline
0800 80 70 60

floodline
0345 988 1188

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Forecast risk of flooding

Saturday 7 March should stay dry. Rain is then expected Sunday morning (8 March), and Monday afternoon (9 March). The forecast is suggesting up to 30mm in total, over the two days. Which is not an exceptional amount, but would still be enough for us to expect a response from groundwater levels. Further spells of rain sound possible next week. Although the heaviest rain may miss us in Sussex, and there is no indication of amounts, the implication of almost continuous delivery of rainfall, most days, is unlikely to allow groundwater levels to fall significantly. And it is possible, perhaps probable - if we do see the larger amounts of rain - that groundwater levels will rise higher over the coming week. And remain high the week after.

Minor flood impacts from high groundwater are expected to continue during the coming week. Springs flowing, pumping water out of cellars, sewerage network capacity reduced. If the rainfall in Sussex is nearer the higher estimates, it could leave groundwater levels very sensitive to any future rainfall. And the numbers of properties affected may begin to increase by the end of next week. But numbers affected are likely to remain relatively small in each community, for now.

Long term weather forecasting is extremely difficult. There is still considerable uncertainty in the forecast this week and especially beyond. There is no strong guidance in the longer term weather outlook, other than conditions are likely to remain unsettled. With periods of rain interspersed with sunny spells. There is a suggestion more settled weather may start to develop towards the end of March, which would help groundwater levels fall. But it feels like we've promised settled weather for six months now (and it hasn't occurred). In recent years, groundwater levels have even risen into April. It is therefore possible, particularly with groundwater levels so high, that further rises in groundwater levels and periods of groundwater flooding could still occur later in March, or even in the coming months.

What we're doing

We will continue to monitor groundwater 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 groundwater flooding. We will update our Flood Alert messages for communities affected on a regular basis, to explain possible impacts and suggest the weather forecast ahead.

Actions and advice

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

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

(see other links in 'further information' section below)

2. Think and prepare now for what you'll do if flooding occurs where you live, don't wait until flooding happens. Prepare a flood plan to help you and your community decide what practical actions to take before and during a flood, which will help reduce the damage flooding could cause.

We have a [leaflet](#) offering practical advice to help you reduce the impact of flooding from groundwater.

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3. We offer a Groundwater Flood Alert service for the following areas:

Groundwater flooding in West Dean, Singleton, Charlton, East Dean and Chilgrove
Groundwater flooding in Patcham

If you would like to receive our messages, please ensure you are registered to receive the information most relevant to you and that your contact details are up to date. If you wish to register or 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>.

4. We encourage at risk communities 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. <https://flood-warning-information.service.gov.uk/plan-ahead-for-flooding>

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

6. If you notice any impacts of groundwater flooding, please let us know. My email is: richard.eastaff@environment-agency.gov.uk More information will help us to improve our understanding and hopefully provide an improved warning service in the future.

Next update

We will update this briefing note by 20 March 2020. Sooner if the risk of groundwater flooding significantly increases.

Further information

You can view our latest briefing note, Flood Alerts, daily groundwater levels (compared to averages, minimums and maximums) and indicative impact thresholds along with rainfall data on our website: <https://sites.google.com/view/groundwatergraphs>
Please note that data displayed is raw and not quality assured.

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

You can view sub daily groundwater levels on the Gaugemap website at: www.Gaugemap.co.uk

Please note that data displayed on Gaugemap is raw and not quality assured.

You can view current weekly groundwater levels 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/collections/water-situation-reports-for-england>

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This briefing note can be found on the Gov.UK website at:

<https://www.gov.uk/government/collections/groundwater-current-status-and-flood-risk>

Contacts

If you would like any further information on groundwater levels please contact us by emailing:

ssdenquiries@environment-agency.gov.uk

For any queries about our Flood Warning Service please contact Richard Eastaff on 02084 745935, or

email richard.eastaff@environment-agency.gov.uk

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