

Flooding from Groundwater

Hampshire

16 February 2024

Current situation

Groundwater levels across Hampshire remain high due to a very wet autumn and winter. However, in the month from 05/01/2024 to 05/02/2024, the weather was relatively dry. This allowed groundwater levels in most communities to reduce significantly. During the last 10 days, unsettled weather bringing heavy and persistent rainfall has returned to Hampshire with between 50 and 90mm of rain recorded during this period. The rate at which groundwater levels have been falling has slowed, and in some communities, levels have stabilised or even started to increase slowly again.

Groundwater flooding impacts have generally reduced since we last issued this Briefing Note (18/01/2024), but most susceptible communities continue to be affected by minor flooding impacts. These impacts include flooding to cellars, roads and land, and impacts to sewerage networks and septic tanks.

The table below shows rainfall data values recorded at Otterbourne, near Winchester, up to 16 February 2024 (this gauge is used statistically for comparisons because of its very long term record).

	Hampshire at Otterbourne (near Winchester)						
Month	Total rainfall	Long Term Average Rainfall	% of Long Term Monthly	Wettest		Driest	
	(mm)	(mm)	Average	mm	year	mm	year
August	82.6	61.2	135%	168.6	1931	3.8	1940
September	81.3	71.3	114%	196.5	1968	1.0	1929
October	172.9	78.6	219%	227.6	2020	4.6	1969
November	126.4	83.1	152%	244.0	2002	8.9	1945
December	132.9	93.5	142%	244.5	1934	12.3	1926
January	97.8	84.8	116%	282.8	2014	10.3	1964
February	69.5	60.7	114%	179.5	2014	2.6	1895

Flood Alerts are currently in force for the following communities in Hampshire:

Deane and Ashe Vernham Dean, Upton and the Bourne Valley Villages surrounding Andover Kings Somborne and Little Somborne Candovers and Old Alresford Finchdean, Dean Lane End and Rowlands Castle

Twyford and Hensting
Hursley
Bishops Sutton
Bramdean and Cheriton
Hambledon
Alton and Lower Farringdon

Forecast risk of flooding

Mostly dry weather is forecast for the rest of today (16/02/2024) and for most of tomorrow (Saturday 17/02/2024). During Saturday evening, a frontal system will move across Hampshire bringing 10mm of rain to most communities. Some locations could see totals of up to 30mm of rain. This system is

expected to clear away to the east early on Sunday morning (18/02/2024). Widely dry and settled conditions are expected for the rest of Sunday (18/02/2024), Monday (19/02/2024) and Tuesday (20/02/2024).

Long range forecasting is difficult, but a return to more unsettled conditions from Wednesday (21/02/2024) is currently the most likely scenario. There is a potential for heavy periods of rain in the United Kingdom at times in the latter half of the week.

Groundwater levels remain sensitive to heavy rainfall. If heavy or persistent rain does affect Hampshire before the end of February, it is possible that groundwater levels could rise quickly, and flooding impacts could increase. In some communities in north and central Hampshire, it is possible that internal ground flood flooding could occur if heavy rain occurs during the next couple of weeks.

However, if drier than average rain is recorded over the next few weeks, groundwater levels will decrease, and flooding impacts will reduce. If this occurs, Flood Alerts will begin to be removed over the coming weeks.

The graphs below show data from some of our key indicator boreholes up to the 16th February 2024 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 these key indicator boreholes).

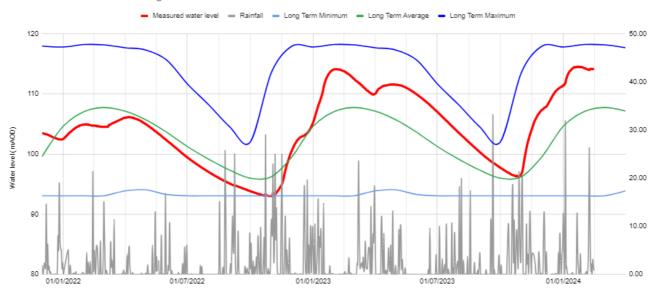
Basingstoke and Buckskin, Crondall and Sherborne St John

The Tile Barn Farm borehole is currently out of service and an alternative permanent site is being progressed. Meanwhile we are using other boreholes in North Hampshire to help predict levels in the areas listed above. The groundwater level at this location is currently declining but remains higher than normal for this time of year. The catchment also remains sensitive to rainfall due to saturated ground and levels may start to increase again as we receive further rainfall.

Alton

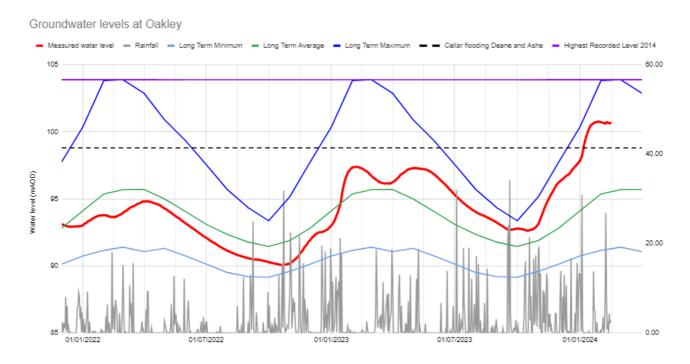
A Flood Alert is in force. The groundwater level is higher than normal at this location and is currently stable at this high level. The catchment remains sensitive to rainfall due to saturated ground and levels may start to increase again as we receive further rainfall. Low-lying land, gardens, roads and cellars continue to be at risk of flooding.





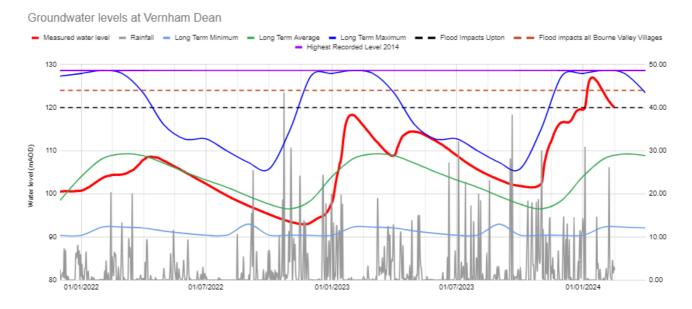
Deane and Ashe, North East Hampshire

A Flood Alert is in force. Groundwater levels in Deane and Ashe are very high and relatively stable. The River Test is flowing upstream of Ashe. Groundwater springflows are impacting land and the ability of septic tanks to operate properly. We expect that properties in Deane are being affected by cellar flooding. If heavy or persistent rainfall is recorded during the last two weeks of February, then groundwater levels will begin to rise again, and the access road from the B3400 into Deane (at Deane Park) may need to be closed. If drier than average rain is recorded in the next few weeks, it is possible this Flood Alert could be removed by early March.



Bourne Valley

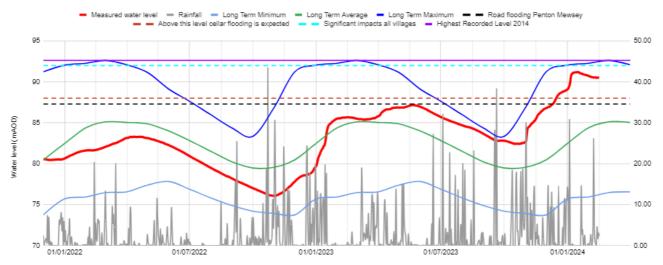
A Flood Alert is in force. Groundwater levels are high but are slowly falling. At our borehole in Vernham Dean, the level peaked on 15/01/2024 and has since fallen by 6.9m. In the last 24 hours, the level has fallen by 10cm, and is now below the threshold we would expect cellar flooding, although residual water may continue to affect isolated properties in Upton and Hurstbourne Tarrant. Ongoing sewerage system and septic tanks impacts will continue to occur throughout the valley. Residual flood water may still be affecting the road through Upton. If very heavy or persistent rain is recorded during the last couple of weeks in February, more widespread cellar flooding impacts are likely to occur again and road flooding will become deeper. If drier than average rain is recorded, then this Flood Alert could be removed during early March.



Villages Surrounding Andover

A Flood Alert is in force. Groundwater levels in the villages surrounding Andover remain high but are relatively stable. At our borehole at Clanville Gate, the level is now 67cm below the level it peaked at on 17/01/2024. In Appleshaw, Hatherden, Penton Grafton and Penton Mewsey cellar flooding is ongoing. Groundwater is affecting Deacon and Down Road in Kimpton, the main road in Penton Grafton, and the road from Biddesden to Appleshaw. Inundation of the sewerage system is expected to be occurring in most villages. Surface water flood risk is ongoing in Thruxton. If further heavy rain is recorded in the next couple of weeks, internal property flooding at Hatherden could occur and flooding impacts to cellars, roads and the sewerage network will increase. If drier than average rain is recorded, we expect flooding impacts to reduce, but this Flood Alert will likely remain in force until at least mid-March.

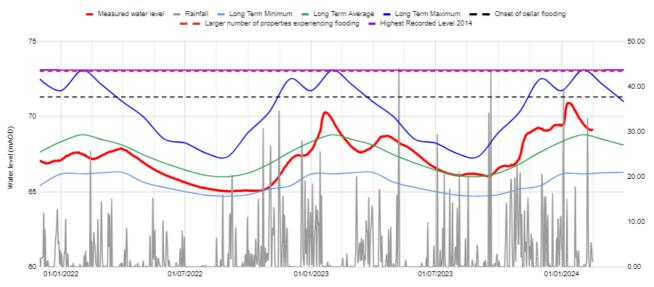




Sutton Scotney and Chilbolton

Groundwater levels are high and relatively stable. At our borehole in Upper Cranbourne, the level is now 1.7m lower than when it peaked on 14/01/2024. Groundwater levels are well below the threshold we expect the spring next to the Abbots Mitre pub to begin flowing, and where we expect onset of cellar flooding along Oxford Road, Sutton Scotney. Flooding impacts are not currently expected in these communities this winter. However, if very heavy or persistent rain is recorded at the end of February and in March 2024 then it is possible that cellar flooding along Oxford Road, Sutton Scotney could occur.

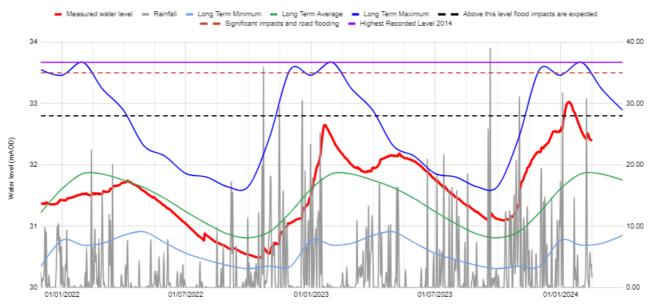




King's and Little Somborne

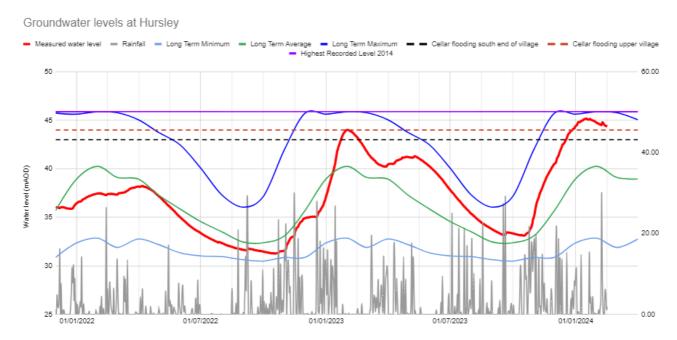
A Flood Alert is in force. Groundwater levels are high but falling slowly. At our borehole in Kings Somborne, the level peaked on 15/01/2024, and has since fallen by 63cm. We expect isolated properties in Kings Somborne and Little Somborne will be experiencing ongoing cellar flooding impacts, and sewerage tankering is occurring in the village. If heavy rainfall is recorded at the end of February, then cellar flooding impacts to property could become more widespread by early March 2024. If drier than average rain is recorded, then it is possible that this Flood Alert could be removed by the end of February or in early March.

Groundwater levels at King's Somborne



Hursley

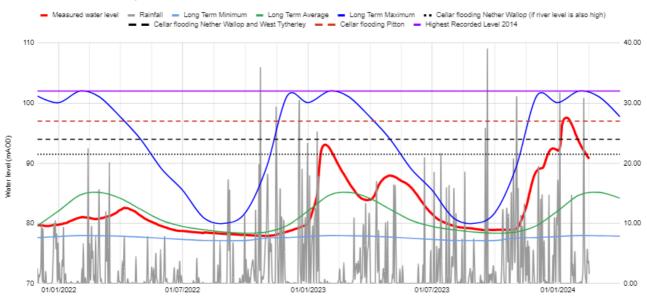
A Flood Alert is in force. Groundwater levels in Hursley are high but slowly falling. The level is now 83cm lower than its peak level on 17/01/2024. We expect widespread cellar flooding to be occurring in the village. Groundwater is inundating the sewerage system. If heavy or persistent rainfall is recorded at the end of February then internal ground floor flooding impacts could be possible by early March. If drier than average rain is recorded, flooding impacts will decrease but this Flood Alert will likely be in force until at least mid-March.



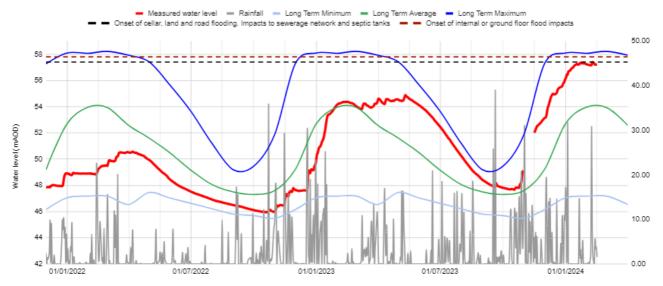
Pitton, West Tytherley, Nether Wallop and Broughton

A Flood Alert is in force. Groundwater levels remain high. At Lopcombe Corner, the level has fallen by 6.8m since it peaked on 14/01/2024. In Pitton, residual flood water may be affecting the sewerage system and roads. Similar impacts, along with residual cellar flooding, are possibly ongoing in West Tytherley where the level is 21cm below its peak on 09/02/2024. If very heavy rain affects the area in the last two weeks of February, then levels could rise again, and cellar flooding in Nether Wallop, as well as land and garden flooding in Over Wallop and Broughton could be possible by early March. In West Tytherley, cellar, road and land flooding could increase in the central village after the next heavy rainfall event. If drier than average rain is recorded, then this Flood Alert could be removed before the end of February or in early March.

Groundwater levels at Lopcombe Corner



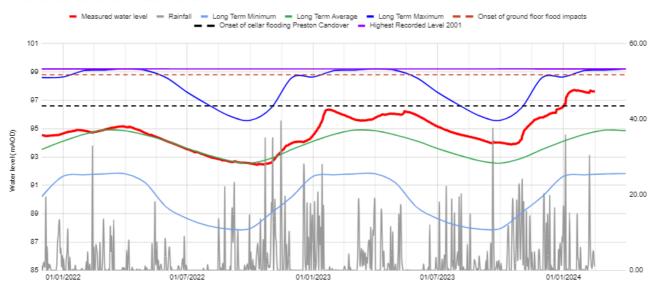
Groundwater levels at West Tytherley



Preston Candover, Old Alresford and Bishop's Sutton

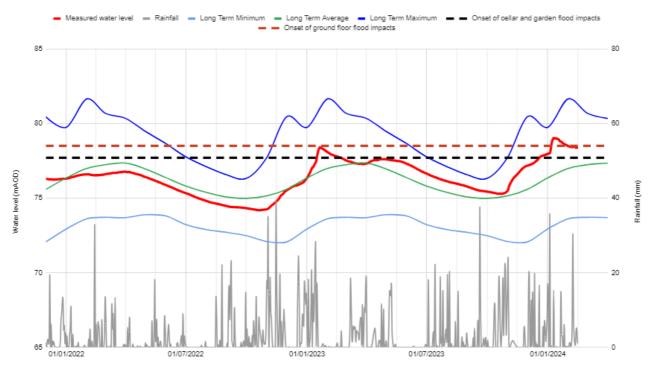
Flood Alerts are in force for all villages. In Preston Candover, the groundwater level is high but relatively stable. The level peaked on 17/01/2024 but has remained high since then and is only 11cm below that level now. We expect that a small number of properties in Preston Candover will be pumping water out of their cellars. If very heavy rainfall is recorded in February and March then internal ground floor flooding impacts could occur in Preston Candover this winter. If drier than average rain is recorded, flooding impacts will improve but this Flood Alert will likely remain in force until at least mid-March.

Groundwater levels at Preston Candover



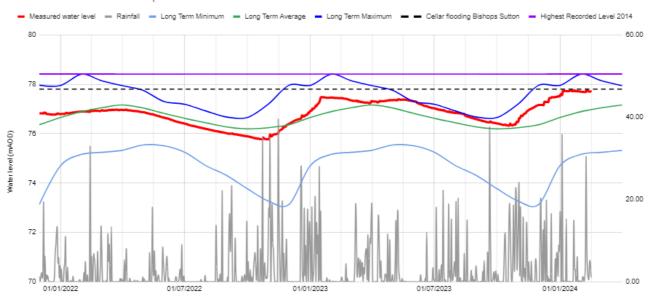
In Old Alresford, groundwater is high and relatively stable. The level is currently 64cm below where it peaked on 10/01/2024. We expect a small number of properties in Old Alresford to be experiencing cellar flooding impacts. If very heavy rainfall is recorded in the last couple of weeks in February, then isolated properties in Old Alresford could experience internal ground floor flooding.





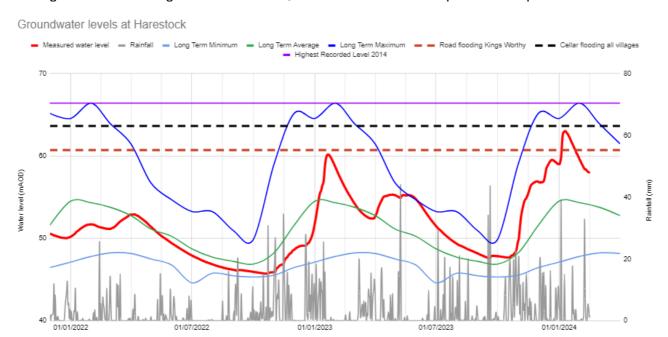
At Bishops Sutton, groundwater is high, and is rising and falling with each heavy rainfall event. The level is currently 12cm lower than when it peaked on 09/02/2024. We expect that impacts to septic tanks and flooding of roads such as the B3047 are ongoing. A small number of properties in Bishops Sutton may have residual flood water affecting their cellars. If heavy rain is recorded in February and March, then internal property flooding is possible this winter. If drier than average rain is recorded, then this Flood Alert could be removed by the end of February or in early-March.





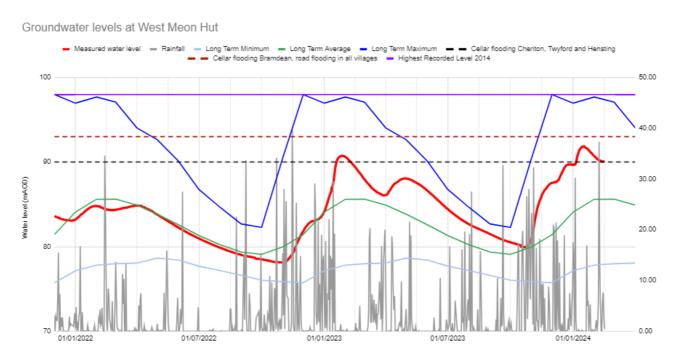
Littleton, Headbourne, Kings Martyr Worthy, Chilland and Easton

We use the borehole at Harestock to provide information for the villages in the alert area. Since the level peaked on 10/01/2024, it has fallen by 5m and the Flood Alert has been removed. If very heavy rain is recorded in February and March, groundwater levels could rise again. Road flooding in Kings Worthy could occur before the end of February and in Martyr Worthy, Easton and Chilland, some properties may begin to experience internal flood impacts as water seeps through floors in early March. If average or below average rain is recorded, then no further flood impacts are expected this winter.



Bramdean and Cheriton, Twyford and Hensting

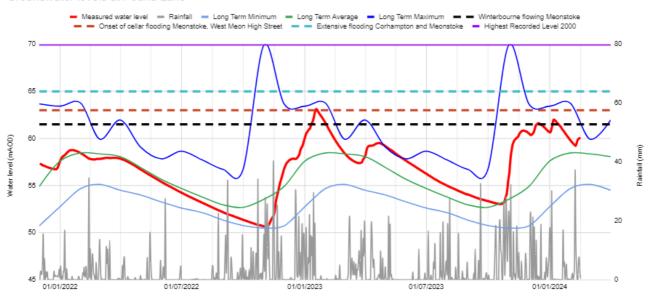
Flood Alerts are in force for all villages. Groundwater is high and relatively stable. The level at our West Meon Hut borehole, which we use to help forecast levels in the above villages is currently 1.8m lower than where it peaked on 17/01/2024. Cellar flooding to a small number of properties in Cheriton, Twyford and Hensting is ongoing, and minor flooding is affecting Hensting Lane. Cellar flooding in Bramdean and sewerage network impacts in all villages is possible from March if very heavy rainfall is recorded. If drier than average rain is recorded, then these Flood Alerts could be removed in late February or early March.



Meon Valley

Following the drier conditions in January and early February groundwater levels have been falling and the Flood Alert was removed for the Meon Valley. Groundwater levels did rise slightly after the rain in mid February but are still 2m below the peak on 7 January. If very heavy rainfall is recorded in the next couple of weeks, water could begin flowing across Rectory Lane in Meonstoke, and a small amount of water could become ponded around the electricity sub-station. Cellar flooding could be possible this winter in West Meon if very heavy rain is recorded due to a combination of high groundwater and river levels. If average or below average rain is recorded, then further flooding impacts are not expected this winter.

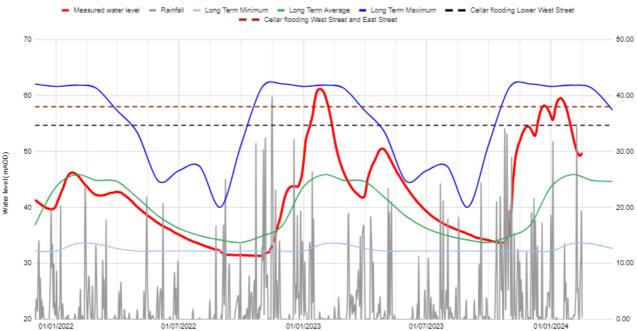




Hambledon

A Flood Alert is in force. In Hambledon, groundwater levels are rising slowly after rainfall in mid February. At our borehole at Whitedale Farm, the level is currently 9.7m below the peak level on 15/01/2024. We expect that only residual minor impacts to the sewerage systems may be ongoing. If further heavy rainfall is recorded in February and March 2024, then flooding to cellars on Lower West Street as well as increased impacts to the sewerage system in the village could be possible in the next few weeks. If drier weather is recorded, then this Flood Alert could be removed before the end of February.



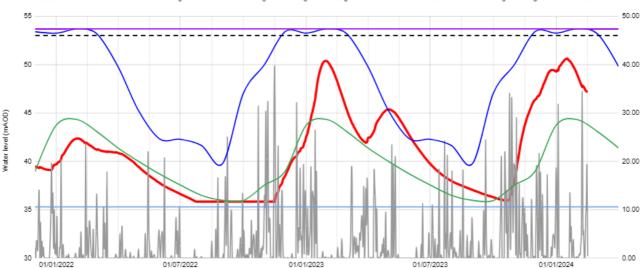


Denmead

Groundwater levels at Rookwood Farm

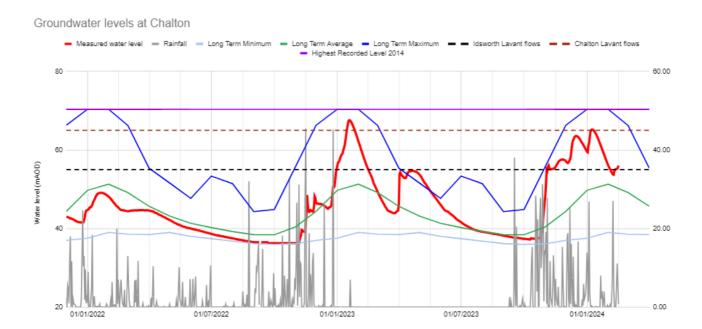
At Rookwood Farm, the groundwater level peaked on 17/01/2024, and has since fallen by 3.4m. The current level is 5.8m below where we would expect groundwater to cause flooding to Anmore Road and impact on the sewage network. Groundwater flooding impacts could occur in Denmead later this winter if exceptionally heavy rain is recorded in February and March 2024, but currently any flooding impacts in this community are considered unlikely this winter.



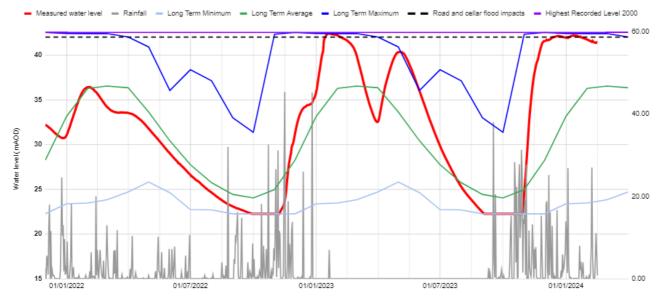


Finchdean, Dean Lane End and Rowlands Castle

A Groundwater Flood Alert is in force. In Finchdean, Dean Lane End and Rowlands Castle, groundwater levels are high. At Chalton, groundwater levels are currently 9.1m below where they peaked on 08/01/2024. In Finchdean, groundwater levels are currently 76cm below their peak on 14/01/2024, but levels did rise slightly in response to rainfall events in mid February. The Idsworth and Chalton Lavants are both flowing. Residual flood water may be affecting the cellar of a small number of properties. Surface water flooding may occur during heavier rain events. If heavy rain is recorded in the next couple of weeks, increased cellar flooding is possible and road flooding could become deep in all villages. If drier weather is recorded, then this Flood Alert could be removed before the end of February.



Groundwater levels at Carpenters Finchdean



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

We recommend opening this site in Google Chrome - some Microsoft internet browsers restrict access to Google Sites.

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

Unfortunately you cannot copy and paste the link above into an internet browser. Some computers are preventing hyperlinks from taking you directly to our site.

Our site is secure, has a valid security certificate, and we do not ask for or take any information.

If our site does not open...

- You can type the address into your internet browser. Preferably Google Chrome, or Safari for Apple.
- Or you can click on the link above, and then click on the 'Groundwater Graphs Google Sites; Groundwater levels in Hampshire and Sussex' page.
- Alternatively, search for 'Groundwater Graphs' on the internet. It is normally the first result.

If for any reason you are restricted from accessing our site, typing out the address into Google Chrome or Safari (on Apple devices), or searching for 'Groundwater Graphs' on the internet (again in Google Chrome) should open the page.

2. Property owners should think about what you'll do if flooding occurs where you live, don't wait until flooding happens. If you have pumps to help reduce water levels, please ensure that they can operate.

We have a <u>leaflet</u> offering practical advice to help you reduce the impact of flooding from groundwater. An accessible version is available on Gov.uk https://www.gov.uk/guidance/groundwater-flooding

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.

Basingstoke and Buckskin Sherborne St John

Alton Crondall

Deane and Ashe in North Hampshire Vernham Dean and Bourne Valley Villages Surrounding Andover King's Somborne and Little Somborne

Pitton, West Tytherley, Broughton and Nether Wallop

Sutton Scotney and Chilbolton

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

Bishop's Sutton

The Candovers and Old Alresford

Bramdean and Cheriton Hensting and Twyford

Hursley Meon Valley Hambledon

Finchdean and Rowlands Castle

Denmead

Customer service line 03708 506 506 www.environment-agency.gov.uk Incident hotline 0800 80 70 60

Floodline 0345 988 1188

- 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).

Next Groundwater Briefing Note Update

This briefing note will be updated by Friday 15th March 2024, or earlier if we feel necessary. If heavy rain should occur in the meantime, it is likely that some more Groundwater Flood Alerts will be issued before this Briefing Note is updated.

Further Important Information

The latest Flood Alert information can be found on the GOV.UK website at: https://check-for-flooding.service.gov.uk/

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.

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.

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

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 Tom Woods on 02084 745940 or email thomas.woods@environment-agency.gov.uk.

Customer service line 03708 506 506 www.environment-agency.gov.uk

Incident hotline 0800 80 70 60

Floodline 0345 988 1188