Report on Kimpton Groundwater 2021

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1. Groundwater data and alerts

https://flood-warning-information.service.gov.uk/target-area/062FAGKimptonGW?utm_source=fws&utm_medium=text

Alert issued by Environment Agency on Thursday 11 February 2021 at 5.19pm

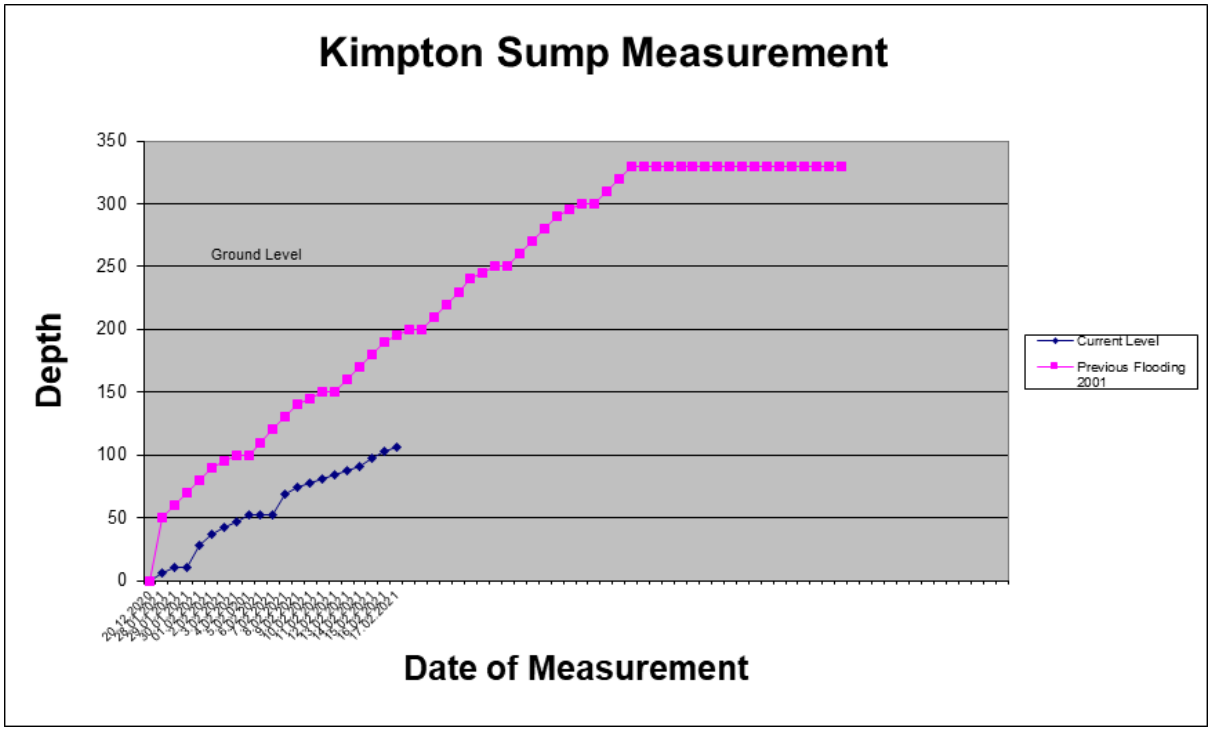
Flooding is possible - be prepared
Groundwater levels have responded to high autumn and winter rainfall, and have risen to high levels at our observation borehole at Lilley Bottom. Groundwater levels are unusually high for this time of year and have now reached a level where communities in the Kimpton and Lilley Bottom area are at risk of being affected by flooding from groundwater. We expect levels to remain high over the coming weeks in response to the high winter rainfall. Low lying land and roads will therefore be at risk of groundwater flooding. Due to the nature of groundwater behaviour, this situation could continue for several weeks or longer. We are continuing to monitor groundwater levels and will update this message on Friday 19 February or as the situation changes.

In Hertfordshire we have received 170% higher than average rainfall for the period October 2020 to January 2021 and this is having an impact on the groundwater levels. Currently the borehole is about 1m lower than at the same time in 2001.

Measurements taken at the sump, Claggy Road

Date	Depth of Water	Top of water to the top of the Sump	Time of Inspection
24/11/2020	0.00cm	231 cm *	10.00am
01/12/2020	0.00cm	231 cm *	9.30am
07/12/2020	0.00cm	231 cm *	9.15am
14/12/2020	0.00cm	231 cm *	10.40am
21/12/2020	0.00cm	231 cm *	9.55am
04/01/2021	0.00cm	231 cm *	10.55am
14/01/2021	0.00cm	231 cm *	11:00am
21/01/2021	0.00cm	231 cm *	12.15pm
28/01/2021	6 cm	225 cm	13.50pm
29/01/2021	10 cm	221 cm	09.00am

01/02/2021	28 cm	203 cm	07.55am
02/02/2021	37 cm	194 cm	09.55am
03/02/2021	42 cm	189 cm	10.15am
04/02/2021	47 cm	184 cm	14.20pm
05/02/2021	52 cm	179 cm	12.15pm
08/02/2021	69 cm	162 cm	10.30am
09/02/2021	74 cm	157 cm	09.15am
10/02/2021	78 cm	153 cm	10.30am
11/02/2021	81 cm	150 cm	09.00am
12/02/2021	84.5 cm	146.5 cm	10.45am
13/02/2021	87 cm	144 cm	10.01am
14/02/2021	90.5 cm	140.5 cm	10.45am
15/02/2021	97.5 cm	133.5 cm	10.20am
16/02/2021	102.5 cm	128.5 cm	09.45am
17/02/2021	106 cm	125 cm	09.15am



The pink line are the borehole readings in 2001 against the sump, Claggy Road readings in 2021.

2. Multi agency response

An officer meeting was held on 17th February 2021 at 10am via Teams

Attendees: HCC (Flood Risk Management Team Leader, Flood Officer, Emergency Planning and Highways), Environment Agency, NHDC (Green Spaces, Emergency Planning, Communications) and KPC

What is the likelihood of groundwater flooding in Kimpton this year? Why has a flood alert been issued?
There is a risk that the groundwater levels will continue to rise within the next 12 days and breach the ground surface. Environment Agency to provide an update on 19th February and will monitor the borehole. The ground is fully saturated. Floodline will be kept updated.

What do we consider to be a trigger point to commence instigating any response?
NHDC Kimpton Groundwater Management Plan includes 4 triggers with the second trigger of the sump water level being halfway to be reached in 3 to 4 days' time. Technical support has been offered by EA. Met office weather predictions for Hertfordshire indicate unsettled weather with rain during February followed by drier weather in March. However, this has limited effect on the speed and intensity of groundwater levels rising. The trajectory of the water levels is not able to be confidently predicted.

Trigger 3 – water at the top of the sump
Trigger 4 – water overflowing

If there is to be a response – what is it going to be?

- Multi-agency co-ordination to be continued.
- Senior Management Teams of all agencies to be briefed.
- EA to offer technical support through a commentary on the groundwater levels and reaction to any flood.
- The acco drains and gullies are to be cleared as a precaution.
- KPC to forward data on the flood incident 2001
- NHDC will organise a reception centre and look after resident safety.
- The lagoons and mitigation features will be inspected by HCC.
- Emergency Planning has a COVID 19 infrastructure that could offer incident management to any groundwater incident.
- NHDC Comms to post a multi-agency briefing on Kimpton Village Facebook

3. Next Steps

A site meeting has been arranged for Monday 22nd February at 10.00 with a Team meeting in the afternoon to co-ordinate actions by each agency.

Each agency to share relevant documents and information.

Parish Clerk to maintain liaison with the Enterprize Park, Industrial units and residents.