## Rainfall and groundwater level information - Sep 2024

Rainfall average Station: Waddington Climate period: 1991-2020

| Month     | Rainfall<br>(mm) | Cumulative<br>(mm) |
|-----------|------------------|--------------------|
| January   | 47.61            | 47.61              |
| February  | 38.37            | 85.98              |
| March     | 36.43            | 122.41             |
| April     | 44.28            | 166.69             |
| May       | 47.02            | 213.71             |
| June      | 60.32            | 274.03             |
| July      | 60.33            | 334.36             |
| August    | 58.29            | 392.65             |
| September | 51.97            | 444.62             |
| October   | 61.40            | 506.02             |
| November  | 56.93            | 562.95             |
| December  | 51.86            | 614.81             |
| Annual    | 614.81           |                    |

## Rainfall actual

| Station: Wadd | ington        |       |        |        |              |
|---------------|---------------|-------|--------|--------|--------------|
| Year          | 2021          | 2022  | 2023   | 2024   | _            |
|               |               |       |        |        | 1            |
| Month         | Rainfall (mm) |       |        |        |              |
| January       | 89.6          | 19.6  | 36.0   | 38.4   | 1            |
| February      | 45.6          | 62.6  | 12.6   | 84.8   | 1            |
| March         | 14.8          | 41.5  | 74.6   | 55.2   | 1            |
| April         | 5.2           | 14.4  | 52.8   | 64.2   | 1            |
| May           | 91.4          | 63.8  | 37.0   | 66.6   | 1            |
| June          | 40.2          | 27.6  | 25.4   | 34.0   | 1            |
| July          | 82.6          | 19.6  | 108.8  | 76.4   | 1            |
| August        | 27.4          | 60.8  | 36.4   | 23     | 1            |
| September     | 56.4          | 61.2  | 69.6   | 102.6  | 1            |
| October       | 73.4          | 99.0  | 165.6  |        | 1            |
| November      | 21.2          | 82.8  | 50.8   |        | 1            |
| December      | 60.8          | 44.6  | 99.4   |        | 1            |
| Annual        | 608.6         | 597.5 | 769    | 545.2  | Year to date |
| % of average  | 99.0%         | 97.2% | 125.1% | 122.6% | Year to date |

Waddington is the nearest Met Office station to Heighington and we use its data to provide an approximation for local rainfall.

## Groundwater Level

The groundwater level stated here is for the Stow 2 borehole, which is located near to Brinkle Spring Lane, Heighington. The level is specified in metres (mAOD). mAOD= Meters above ordnance datum. This gives the actual elevation of the groundwater level referenced to the mean sea level at the UK Ordnance datum at Newlyn, Cornwall. All elevations in the UK are derived from this datum. The groundwater level stated here is for 09:00 on the 15th day of the month specified (or the nearest day if data is missing).

| Year           | 2021                     | 2022 | 2023  | 2024 |  |
|----------------|--------------------------|------|-------|------|--|
| Month          | Groundwater level (mAOD) |      |       |      |  |
| January        | 8.95                     | 8.44 | 9.31  | 9.48 |  |
| February       | 9.49                     | 7.44 | 7.89  | 9.54 |  |
| March          | 8.09                     | 8.30 | 7.18  | 8.80 |  |
| April          | 6.96                     | 7.63 | 8.23  | 8.29 |  |
| May            | 6.20                     | 6.57 | 7.65  | 7.84 |  |
| June           | 6.89                     | 5.59 | 6.66  | 7.44 |  |
| July           | 6.29                     | 4.06 | 5.55  | 6.74 |  |
| August         | 5.63                     | 2.82 | 6.17  | 5.98 |  |
| September      | 4.31                     | 3.25 | 5.09  | 4.81 |  |
| October        | 5.07                     | 3.20 | 6.32  |      |  |
| November       | 5.55                     | 7.56 | 9.29  |      |  |
| December       | 6.65                     | 8.59 | 10.03 |      |  |
| Yearly Average | 6.67                     | 6.12 | 7.45  |      |  |

## **Recent Flood Events**

| Dates   | Approx Cumulative Rainfall (mm) |            | Event Peak Beck Level | Event Peak Groundwater Level | Storm                            |       |
|---|---------------------------------|------------|-----------------------|------------------------------|----------------------------------|-------|
| Flood duration ends when beck level below 0.21m | 12 mnth                         | 3 mnth     | 2 mnth                | (m) above weir               | (mAOD)                           |       |
| 20/12/2012 - 29/12/2012                         | <u>827</u>                      | 251        | 179                   | 0.31                         | 10.26                            |       |
| 7/11/2019 - 19/11/2019                          | <u>835</u>                      | <u>323</u> | <u>219</u>            | 0.42                         | 10.38                            | 1     |
| 20/10/2023 - 2/11/2023                          | 747                             | 272        | <u>235</u>            | 0.77                         | 8.29 (but climbing to 9.8 later) | Babet |
| 3/1/2024 - 11/1/2024                            | 795                             | <u>342</u> | 182                   | 0.55                         | 10.64                            | Henk  |

Heighington suffered localised flooding in the periods stated above. Flooding seems to occur when the groundwater level exceeds 10mAOD. The cumulative rainfall specified in the table immediately above is a best estimate for the preceding rainfall to the date of the flood event. Flooding tends to occur when the rainfall in the preciding period of 2 months, 3 months or 12 months exceeds 200mm, 300mm or 800mm. The localised flooding in October 2023 was principally caused by excessive rainfall in a very short time caused by Storm Babet, in the period 18/10/2023-21/10/2023 98.8mm at Waddington. During this flood event the groundwater level remained below 10m(AOD). However, above average rainfall in December 2023 followed by Storm Henk, with rainfall of 31.9mm during the period 1/1/2024-3/1/2024, pushed the groundwater level sharply above 10mAOD on 3/1/2024.

Heighington Parish Council provides information about rainfall and groundwater level to inform residents of the potential for localised flooding. We also hope the information will be of wider interest (e.g. for gardeners and farmers). We thank the Environment Agency for providing the groundwater level data.

You can sign up for the Government's Flood Alert system here:

https://www.gov.uk/sign-up-for-flood-warnings

Information about monthly rainfall for Waddington is available online here (*typically updated early in the following month*): https://www.metoffice.gov.uk/research/climate/maps-and-data/historic-station-data

Information about average rainfall for Waddington is available online here: https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages

Up to date information about the level of Heighington Beck (which runs through the village) is available online here: https://check-for-flooding.service.gov.uk/station/6061