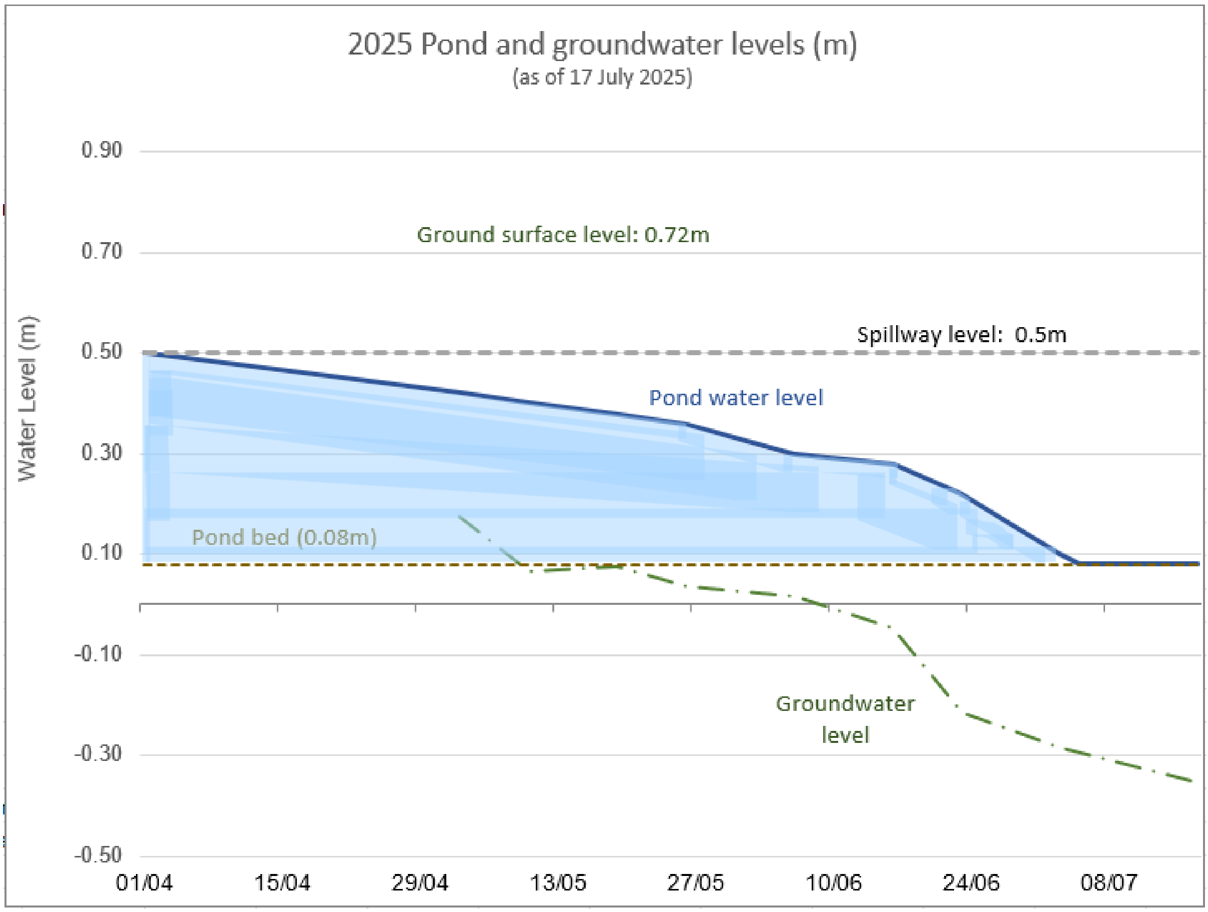
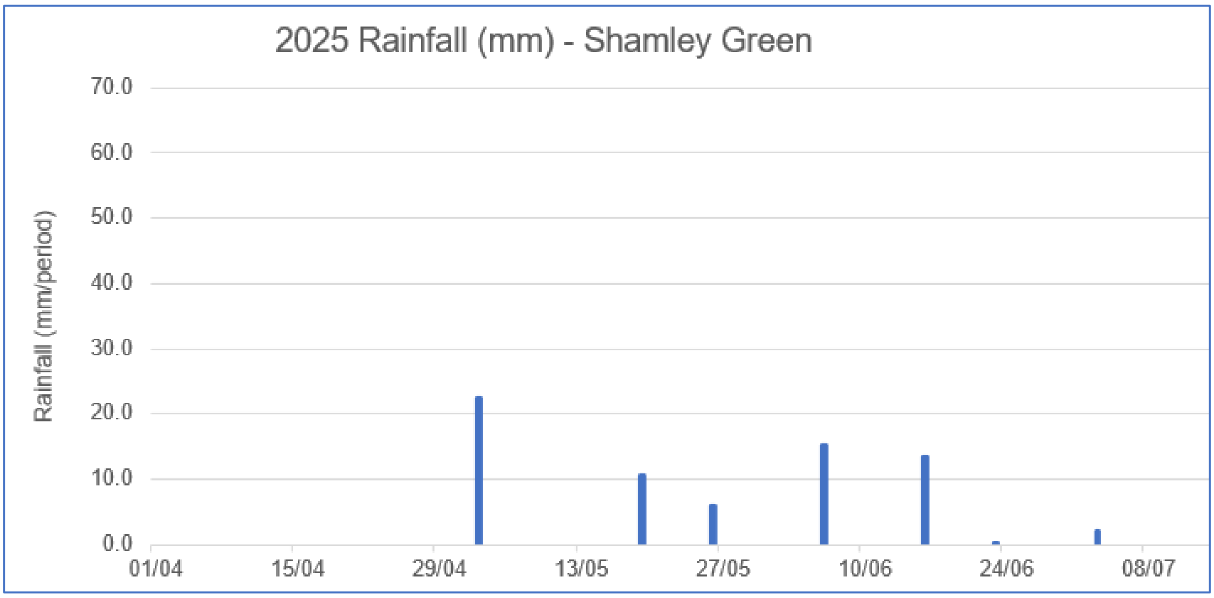
Shamley Green Duck Pond
2025 Summer water levels and rainfall

Pond water levels and adjacent groundwater table levels



Groundwater table plotted to same vertical datum as pond level

Rainfall

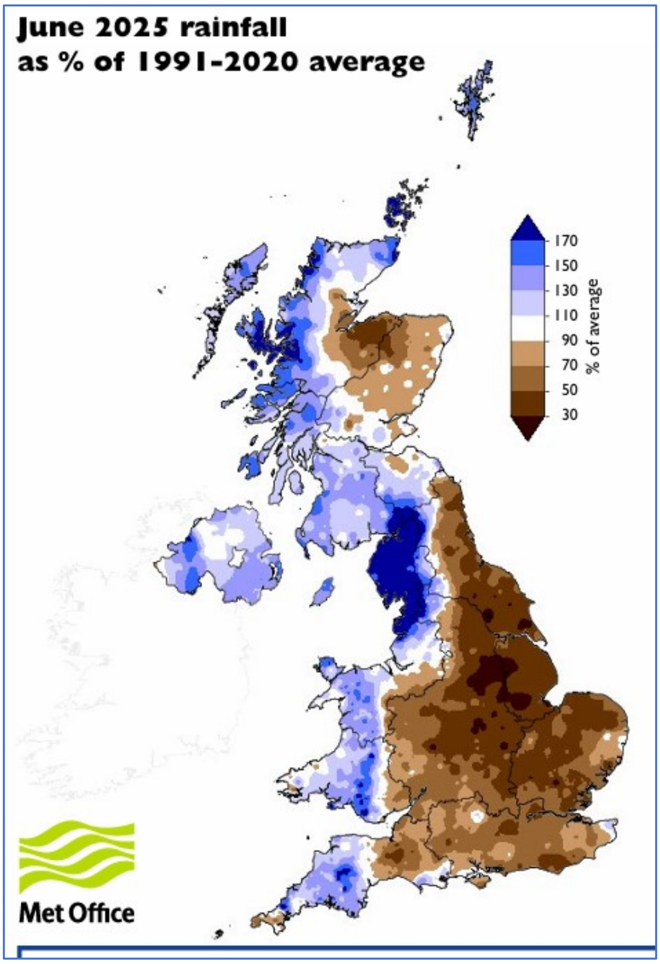


Period	SG Rain in period (mm)	Period	SG Rain in period (mm)
1 April – 3 May	22	16-23 June	0
4-10 May	0	24 Jun–3 July	2
11-19 May	10.5		
20—26 May	6		
27 May – 6 June	27		
7-16 June	1.5		

	Monthly totals (mm)		
	Mean Wisley	2024 SG	2025 SG
May	47	67	28
June	47	22	27
July	49	77	
August	57	35	
Sept	54	174	

Summary

- This year the Duck Pond dried out at the beginning of July. The previous drying out was in mid-July 2022 when it then remained dry for about 5 weeks.
- The average daily drop in water levels from the beginning of May 2025 to mid-June was about 3 mm/day reflecting reasonable evaporation rates from the pond surface and transpiration from the trees and plants. This was coupled with much lower rainfall meaning that replenishment of the pond was minimal.
- Average rainfall recorded in Shamley Green for May (28mm) and June (27mm) was 57% of the average recorded at Wisley (where long term data are readily available -see table).
- Virtually no rainfall fell from mid-June to the first week of July and, together with very high temperatures, led to an acceleration of the fall in water level from mid-June to early July (see rainfall graph).
- Mean noon day temperatures recorded in Guildford were in the range of 22-25 deg C in late June compared to 15-20 deg C a month earlier.
- The high air temperatures combined with shallower water depth led to a significantly higher rate of evaporation than earlier in the month resulting in a steeper drop in water levels from mid-June as shown in the figure.
- Hydrological summaries for the UK published by the Centre for Ecology and Hydrology emphasize the particularly hot and dry conditions in May and June, quote:
  - May 2025: '*The mean temperature was 1.3°C above the long-term average (the fifth warmest in a record from 1884).*'
  - June 2025: '*The second half of June was drier, with southerly air masses bringing heatwave conditions across England and Wales. It was the warmest June for England (2.5°C above long-term average) and the second warmest for the UK as a whole.*'
  - July 2025: '*There is a continued, and heightened, risk of drought impacts through summer, on agriculture, the environment and water supplies, especially across eastern Britain. Soil moisture levels recovered in parts of the north and west but drying persisted elsewhere, with nearly a third of [monitoring] sites recording their lowest average June soil moisture levels (in records from 2013 or later).*'
- The east-west divide of rainfall across the country is well illustrated by the Met Office map for June rainfall (see figure below) - with monthly rainfall in the southeast being in the range of 30-70% of long term averages.
- Groundwater levels measured close to the pond on the SW corner have also dropped to the lowest level since we started monitoring in 2023. The water table in mid-July was 1.08m below ground level which is linked to very dry soil moisture conditions and low river flows.
- Repairs to pipes from the land drainage system upstream of the pond carried out this year have improved runoff into the pond. The benefits of this work were evident earlier in the monitoring season and will be particularly important in summers where there is a more uniform distribution of rainfall, rather than during the current drought.
- There are pros and cons to drying out of ponds and it can have some benefits for wildlife. Some of the aspects to consider are described in an article by the Freshwater Habitats Trust https://freshwaterhabitats.b-cdn.net/app/uploads/2023/06/Silted-up-ponds-and-dredging.pdf


June 2025 rainfall
as % of 1991-2020 average
170
150
130
110
90
70
50
30
% of average
Met Office