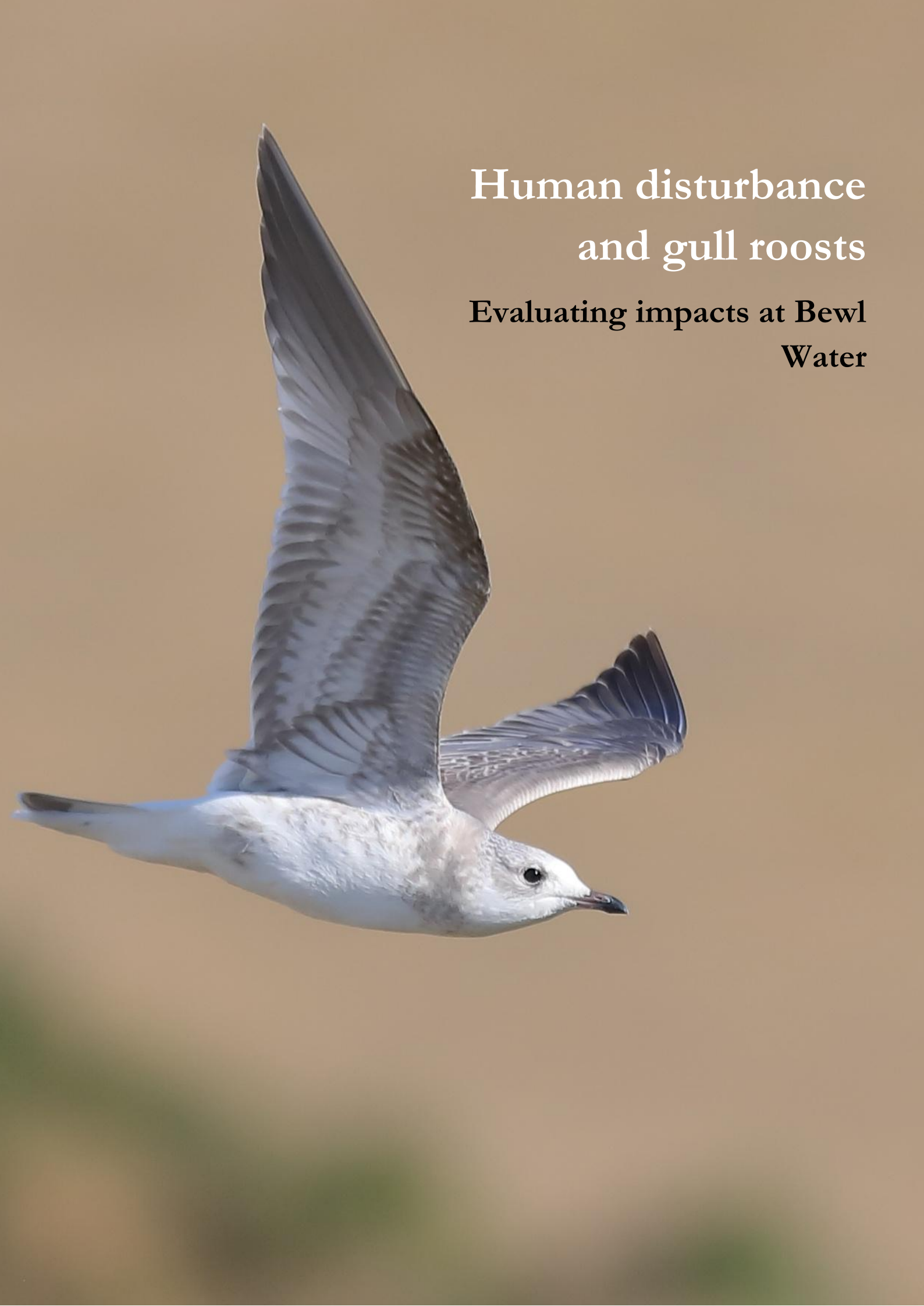


A photograph of a gull in flight, positioned on the left side of the frame. The gull has white plumage on its head and neck, with grey feathers on its wings and back. Its wings are spread wide, showing the intricate structure of the feathers. The background is a soft, out-of-focus mix of light brown and green tones, suggesting a natural, outdoor setting. The text is overlaid on the right side of the image.

Human disturbance and gull roosts

**Evaluating impacts at Bewl
Water**

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COVER IMAGE: First-winter Common Gull (David Campbell)

A — Introduction

1. This report was requested in November 2024 by Wadhurst Parish Council.
2. Wadhurst Parish Council asked for an ornithological report with updated gull data to assess vulnerability and threats Bewl Water's bird population and the gull roost in particular. The Council wished the earlier report by Matt Phelps (2023) to be revised and updated.
3. I have been invited to consider the recent planning applications and their impact on the wildlife in general and gull roosts in particular, The planning applications are as follows.
 - a) 2012 Change of use of fishing lodge to holiday lodges WD/2012/2568/F Approved
 - b) 2020 Permission for a campsite for three years for up to 80 pitches between May and September. WD/2020/0717/MAJ Approved
 - c) 2021 Change of use and an extension of fishing lodge to convert it to four one bed tourist units 2021 WD/2021/0638/FULL Refused and Appeal allowed
 - d) 2023 permission for a campsite of up to 80 pitches WD2023/1895/MAJ Refused and allowed on appeal APP/C1435/W/24/3343258
 - e) 2023 Erection of four Yurts (two retrospective permission requested) and retention of toilets and wash facilities for year round occupation WD/2023/2424/FR Refused and allowed on Appeal APP/C1435/W/24/3343260
4. Additional gull counts from after the finalisation of Phelps (2023) have been included in this report, alongside other data from before 2022 that was not included in the original report. The ecological impacts of developments at the site are considered.

B About Bewl Water

Context and relevant research

5. Bewl Water is a large reservoir on the Kent/East Sussex border, approximately 16 km south-east of Tunbridge Wells. Covering 323 hectares, it is the largest inland water body in south-east England. The reservoir was created in the 1970s by damming the River Bewl to provide a reliable water supply for the region. It is set within the High Weald National Landscape, which is characterised by rolling hills, ancient woodland and farmland.
6. Managed by Southern Water, Bewl Water serves as a critical water storage facility, supplying drinking water to Kent and East Sussex.
7. Bewl Water is a popular site for outdoor activities such as walking, cycling, rowing, fishing, sailing and other water sports. The perimeter trail offers scenic routes for visitors. A visitor centre, café and fishing boat and bike hire facilities are available to visitors.

C The Ecological situation

8. Bewl Water is an important ecological site, supporting a diverse range of birdlife and aquatic wildlife. It is particularly significant as a roost site for gulls. (.

9. The site's woodlands, grasslands and wet areas provide habitat for other birds, such as Common Kingfisher, Great Crested Grebe and birds of prey, including migrant Ospreys. The reservoir also supports fish species such as trout, perch and pike.

D The Gull Roost

10. Due to its name, those unfamiliar with British gull species may presume that Common Gull is the species ubiquitous in coastal towns over the summer, bearing an unfortunate reputation for stealing food, raiding bins and causing a nuisance on rooftops. This urban species is European Herring Gull. The Common Gull is a shyer, daintier species which is not involved in such conflicts with humans, and is largely a winter visitor in large areas of Britain. There are very few breeding colonies in Sussex and Kent, on nature reserves. Many of the Common Gulls seen in Britain in winter breed in Scandinavia and Iceland. Invertebrates, fish and crustaceans form the bulk of its diet, and it feeds mainly in meadows and at sea.
11. The reservoir hosts one of the largest overnight gull roosts in south-east England, including significant numbers of Common Gull (now Red-listed), Black-headed Gull and larger gull species. Bance 2003, SOS/Thomas 2014) The activity is mainly from October to March. The site regularly supports over 20,000 Common Gulls, making it one of the most important roost sites for the species in Britain and worthy of SSSI (Site of Special Scientific Interest) status on the basis of this species alone. It is the largest Common Gull roost in Britain, sometimes supporting over 10% of the national wintering population. For example, 76,020 Common Gulls were recorded in January 2011 (Holt *et al* 2012). The UK's wintering population of Common Gull was estimated at approximately 710,000 individuals during the 2003–2006 period (Banks *et al* 2007). The reservoir also supports significant number of roosting Black-headed Gull, European Herring Gull and Lesser Black-backed Gull.
12. Some winter counts have exceeded 100,000 roosting gulls (Cowser & Mallalieu 2023 per Phelps 2023). Regular gatherings of 20,000 waterbirds puts the site in the category of other similar sites covered by Criterion 5 of the Ramsar Convention (Ramsar Convention Secretariat 2013), which designates wetland sites as being of national or international importance for their value to waterbirds and other wildlife.
13. Other large inland water bodies across Sussex support roosts of Black-headed Gull *Chroicocephalus ridibundus* and larger gull species such as European Herring Gull *Larus argentatus* and Lesser Black-backed Gull *Larus fuscus*. However, none hosts Common Gull numbers comparable to Bewl Water.
14. Common Gull was added to the UK Red List in an addendum to the Birds of Conservation Concern 5 (Stanbury *et al* 2024). The UK Red List comprises bird species that are facing critical decline in the UK, Channel Islands and Isle of Man. European Herring Gull also sits on the Red List, with Lesser Black-backed Gull and Black-headed Gull listed as Amber (Stanbury *et al* 2021).
15. Gulls can show high winter-site fidelity (Clark 2014 per Phelps 2023). Sizeable inland water bodies are preferred roost sites, but their use can lead to conflict with humans when they are also designated for recreation, water supply or are located near airports (Clark 2014, Deacon 2019 per Phelps 2023).
16. In light of proposed developments at Bewl Water, this report presents gull roost count data from the site and other key water bodies around the UK alongside an overview of

recreational activities at these sites. This is in order to inform decision makers on the potential ecological impacts of these developments at Bewl Water.

17. Reliable food sources and roost sites over the winter influence the breeding success of female gulls (Ankney & MacInnes 1978 per Clark 2014, in Phelps 2023). As gulls return to the same wintering sites annually, significant changes in food availability or disturbance at roost sites could push them to relocate, potentially reducing breeding success in subsequent years (Clark 2014 per Phelps 2023).
18. The roost is critical due to the lack of alternative sites nearby. Unlike other large inland water bodies, Bewl Water does not have comparable nearby secondary roost sites.
19. The effects of specific disturbances (e.g. new recreational developments) on gull roost sites remain for some types of disturbance largely speculative given the lack of controlled studies. However it is possible to make informed estimates about some types of disturbance. Sudden and unexpected noise events – as opposed to steady background noise such as from traffic, or routine maintenance operations– are the most likely to cause gulls to flush from feeding or roost sites (Hickling 1957). If allowed to continue unrestricted through the night during the winter months, noise events have the very real potential to cause total abandonment of a roost site (Hockin et al 1991, Gosler et al 1995 per Phelps 2023).
20. Where gull activity is deemed to be a threat to human health or safety, ensuring gull abandon rooftop roost sites can be as simple as walking on the rooftop with a bright light several times in consecutive nights (Deacon 2019).
21. No Sites of Special Scientific Interest (SSSI) have yet been designated solely for their value as a Common Gull roost, though Loch of Skene in Aberdeenshire received SSSI designation partially for this reason. Given the regular high counts of Common Gulls at Bewl Water, it is surprising that the site has not been received SSSI designation.

E Building on the Matt Phelps findings

22. This report updates research conducted by Phelps (2023), which assessed the impacts of human disturbance on gull roost sites across England, Scotland and Wales, with a focus on Bewl Water.
23. Matt Phelps’s methodology involved sourcing data from the British Trust for Ornithology’s (BTO) *Winter Gull Roost Survey* (Banks *et al*, 2007) to identify 25 key gull roost sites in the UK, conducting site comparisons using Google Earth, and directly contacting county bird recorders, BTO surveyors and local birders to assess disturbance levels at 25 key gull roosts. Matt Phelps also corresponded with sailing club managers and other relevant stakeholders to determine existing restrictions on recreational activities.
24. Matt Phelps asked correspondents: *Does site X still host a significant gull roost?- If so, is there any impact from human disturbance? - If yes, has the level of disturbance increased and does it have any impact on the gull roost or waterbird populations in general?- Are there any restrictions in place at site X to minimise disturbance to gulls and other waterbirds?*
25. For this updated report, an effort was made to contact as many of the original correspondents as possible, requesting updates on recent gull counts and any observed changes in disturbance levels since 2023.

26. Correspondents were asked: *Does site X still host a significant gull roost?- Have there been any notable roost counts since correspondence with Matt Phelps in 2023? (Including historical counts coming to light) - Has there been any change in the nature of human disturbance since 2023? - If yes, has there been an impact on the gull roost? - Have there been any changes to restrictions in place to minimise disturbance to gulls and other waterbirds?*
27. Additional data were sourced from the Sussex Ornithological Society (SOS) and the BTO' Wetland Bird Survey (WeBS) portal to supplement existing records. Where new information was available, it was integrated with the original findings to provide a current assessment of the status of Bewl Water and other key sites.
28. The BTO's Winter Gull Survey (WinGS) was undertaken over the winters of 2023/2024 and 2024/2025 but the data are not available yet.

F — Gull roost data for Bewl Water

29. This section contains a selection of significant counts of Common Gull and Black-headed Gull at roost at Bewl Water this century. The data is sourced from the Sussex Ornithological Society database, accessed by request to the County Recorder, David Thorns.

Key gull count data from Bewl Water:

12th January 2005: 69,000 Black-headed Gulls.

10th February 2005: 40,200 Common Gulls.

17th March 2005: 75,000 Common Gulls.

15th February 2006: 90,000 Common Gulls.

31st December 2006: 67,840 Black-headed Gulls.

23rd February 2007: 75,500 Common Gulls.

15th January 2011: 76,020 Common Gulls.

15th February 2014: 91,350 Common Gulls.

8th February 2016: 85,800 Common Gulls.

1st February 2020: 50,270 Common Gulls.

31st December 2021: 52,470 Black-headed Gulls, 21,500 Common Gulls.

2nd January 2022: 27,500 Black-headed Gulls, 28,840 Common Gulls.

7th January 2023: 26,600 Black-headed Gulls, 29,420 Common Gulls.

30. It is noticeable that the highest Common Gull counts in the 2020s have not matched the numbers recorded in the previous two decades. The distribution and movements of gulls varies from year to year, with weather driving significant movements by the birds, resulting in short-term fluctuations in roost counts. More data will need to be gathered over time to ascertain whether there has been a genuine decline at Bewl, and whether changes in numbers are related to weather conditions or other factors.
31. The latest five-year average counts for Bewl Water for Common Gull and Black-headed Gull are 30,573 and 29,532 respectively (BTO 2024). No other site in the UK has a five-year average in five figures for Common Gull, and the Black-headed Gull five-year average is over 10,000 higher than the second-highest site.

32. The Black-headed Gulls and Lesser Black-backed Gulls are Amber-listed while European Herring Gulls are Red-listed in the Birds of Conservation Concern 5 (Stanbury *et al* 2021); Common Gull was added to the Red List in an addendum (Stanbury *et al* 2024).



Common Gulls gathering to roost (Ed Stubbs).

G — Gull roost data and disturbance reports for other significant UK sites

33. In light of proposed developments at Bewl Water, this report presents gull roost count data from the site and other key water bodies around the UK alongside an overview of recreational activities at these sites. This is in order to inform decision makers on the potential ecological impacts of these developments at Bewl Water.
34. The following list is based on Phelps (2023), with gull count data and disturbance information updated where possible. It is arranged in descending size order, with latitudinal and longitudinal coordinates provided for each. Sites were selected based on Banks *et al* (2007) and correspondence with county bird recorders and surveyors.
35. The information for each site is a combination of results from a set of questions sent to the relevant county recorders by Phelps, and of my own follow-up correspondence for this report, as explained in section E.
36. **Rutland Water, Leicestershire** (52.64885, -0.67782, 1254 hectares) – This major gull roosting site has recorded counts of up to 12,080 Common Gulls and 40,000 Black-headed Gulls, with a five-year average of 3,246 and 10,500 for 2018/2019 to 2022/2023 respectively (BTO 2024). 12,050 Common Gulls and 40,000 Black-headed Gulls were counted on 21st January 2024 (C Baggot pers. comm. 27th February 2025). The primary roost forms between the dam and Hambleton Peninsula.
37. Despite fishing boats returning to Normanton Harbour at dusk, there has been no notable increase in disturbance. It is believed that the gulls have habituated to routine disturbances, allowing them to remain largely unaffected (C Baggott per Phelps 2023).

Water sports activities must be over by 15:00 from 28 October to January, 16:00 in February and 17:00 in March. There are no water sports on Tuesdays and Wednesdays from November to March. Byelaws outlining restrictions, including off-limit areas, are available on the Anglian Water Parks website, which also states that all groups must vacate the site by the posted car park closing times.

38. **Grafham Water, Cambridgeshire** (52.29866, -0.31109, 627 hectares) – The site has supported at least 50,000 roosting gulls, with numbers occasionally reaching 100,000, with Black-headed Gull representing a high proportion. A count in January 2024 comprised 2,557 Black-headed Gulls and 1,229 Common Gulls, though previous winters have seen 30,000-50,000 and 3,000+ respectively (M Hawkes, pers. comm. 10th February 2025). The roost typically forms in the widest sections of the reservoir. No significant disturbance has been noted from bank-side activities such as fishing and walking (M Hawkes per Phelps 2023).
39. Sailing is restricted to daytime hours, with a klaxon signalling closure. Designated no-sailing zones are marked on a map available on the sailing club website (see Appendix 3, Figure 6). A small number of fly-fishing boats return to the harbour in the evenings, prompting some gulls to relocate but not leave the reservoir entirely. Seasonal restrictions and a buoyed-off area prevent fishing boats from entering western creeks (<https://mntfa.co.uk/grafham-guide>). Gull numbers have declined in recent years, primarily due to the closure of local landfill sites. Estimates suggest a 30-50% decline in Black-headed and Common Gulls, while larger gull species may have declined by as much as 70% (M Hawkes per Phelps 2023).
40. **Chew Valley Lake, Avon** (51.33483, -2.61828, 485 hectares) – This site has regularly hosted up to 50,000 roosting gulls, mainly Black-headed and Common Gulls. Recent counts include 11,855 Common Gulls and 5,640 Black-headed Gulls on 19th January 2025 (Rupert Higgins pers. comm. 18th February 2025).
41. Chew Valley Lake experiences minimal disturbance due to daytime-only water sports restrictions and designated refuge zones for waterbirds. However, as the gulls' preferred roosting area overlaps with the sailing zone, entire roosts have occasionally been flushed by boats. Generally, the birds resettle within minutes (R Higgins per Phelps 2023). The Chew Valley Sailing website states that sailing is permitted only on weekends, Wednesdays and Thursdays, ceasing an hour before sunset unless permission is granted to sail till 6pm by the Duty Officer.
42. **Haweswater Reservoir, Cumbria** (54.51752, -2.80534, 390 hectares) – This large water body lacks tourist and recreational facilities. Accessibility is limited due to remote roads and minimal parking, mainly occupied by hill walkers. The few public footpaths are distant from the water and not heavily used (C Hind per Phelps 2023). In the unlikely event of disturbance, alternative large water bodies such as Ullswater (8km away) and Windermere (17km away) are available to gulls.
43. **Chasewater, Staffordshire** (52.66407, -1.94168, 360 hectares) – A preferred gull roost for over 60 years, with Black-headed Gulls typically the most numerous (e.g. 15,000 on 25th November 2014). The lake is also used for powerboating, sailing and water skiing. Water sports are officially required to cease at dusk, this signalled by an automatic floodlight, but boats sometimes remain active past this time. When this occurs, gulls have been observed avoiding the site, instead seeming to roost at Belvide or Blithfield reservoirs (Evans 2004 per Phelps 2023).

44. **Blithfield Reservoir** (52.81403, -1.91567, 320 hectares) and **Belvide Reservoir** (52.68891, -2.20334, 74 hectares), **Staffordshire** – Blithfield permits sailing only on weekends and during spring and summer evenings. Both reservoirs serve as alternative roosts when Chasewater experiences disturbance. No water sports-related disturbance has been recorded at Blithfield (N Pomiankowski per Phelps 2023). While Belvide has no water sports, occasional disturbance arises from passing fishing boats or nearby shooting, with the latter being more significant due to its unpredictability. Gull numbers have declined following landfill closures in Telford (S Nuttall per Phelps 2023).
45. **Carsington Water, Derbyshire** (53.05896, -1.63015, 300 hectares) – The Carsington roost regularly supports up to 10,000 gulls in winter, predominantly Lesser Black-backed Gulls (e.g. 7,000 in 2023) (Roy Frost pers. comm. 23rd February 2025). While popular with walkers, sailors and anglers, peak human activity occurs in summer and winds down by late afternoon, minimising disturbance. See Appendix 5 for site maps.
46. Gulls typically roost far from the shore, but some gather in other undisturbed areas before settling. Cold weather is the primary factor influencing roost size, often causing a sharp decline (S Roddis per Phelps 2023). Angling and water sports are strictly zoned, with the northern section designated as a nature reserve. All water sports are restricted to 8am-6pm (S Peel per Phelps 2023). Zoning maps are available on the Carsington Sports & Leisure website (see Appendix 5, figures 8 and 9).
47. **Queen Mary Reservoir, Surrey** (51.41531, -0.45991, 283 hectares) – Sailing and daytime dredging occur at this site, though neither has noticeably impacted the gull roost, as there is no nocturnal disturbance. A general decline in gull numbers has been attributed to local landfill closures (S Chastell per Phelps 2023). Byelaws and a Code of Conduct detailing restrictions, including off-limit areas, are available on the Queen Mary Sailing Club website.
48. **Draycote Water, Warwickshire** (52.32482, -1.32531, 243 hectares) – This site occasionally attracts around 45,000 roosting gulls, mainly Black-headed Gulls (e.g., 32,000 on 1st February 2020). 8,000 Common Gulls were counted on 3rd February 2023 (T de Clermont pers. comm. 27th February 2025).. While daytime disturbance from fishing and water sports affects wildfowl and other waterbirds, these activities end at dusk. As boats return, limited disturbance to arriving gulls may occur, but overall impact is limited by these restrictions (B Hazell per Phelps 2023). There has been a temporary decrease in disturbance with the boat-based fishery not operating since November 2023, resulting in less disturbance for the time being, but it is expected to be active again in 2025 (T de Clermont pers. comm. 27th February 2025).
49. **Eyebrook Reservoir, Leicestershire** (52.54978, -0.74025, 201 hectares) – This site no longer hosts as many wintering gulls as it once did, for reasons that remain unclear. Recreational disturbance is minimal, with angling being the only significant activity, but as this is restricted to March-November, it has not had any noticeable impact on the gull roost (C Baggot per Phelps 2023).
50. **Loch of Skene, Aberdeenshire** (57.15771, -2.35795, 144 hectares) – Designated as a Site of Special Scientific Interest, this location supports large numbers of wintering Common Gull, sometimes exceeding 10,000 individuals (e.g., 26th December 2013 – SOC Online Scottish Bird Report). Thousands of Pink-footed Geese also roost here, alongside significant numbers of breeding and wintering Common Goldeneye, while Ospreys nest at the west end. Sailing occurs between 1st March and 30th June, with an increase in kayaking and windsurfing in recent years, partly due to proximity to Aberdeen

(SNH 2011). Since Phelps 2023, the gull roost has reduced in number (Hugh Addlesee pers. comm. 19th February 2025).

51. **Queen Elizabeth II Reservoir** (51.39364, -0.39055, 128 hectares) and **other Walton-on-Thames Reservoirs, Surrey** – QEII experiences no recreational disturbance, though a large solar panel installation has unintentionally benefited gulls, providing perching areas despite deterrent efforts. The **Knight and Bessborough Reservoirs** (51.40041, -0.39258, 64 hectares) support a small gull roost, though most birds depart to other sites; the area remains undisturbed due to its private status (D Harris per Phelps 2023). **Island Barn Reservoir** (51.39097, -0.36500, 50 hectares) supports a significant gull roost despite hosting sailing activities. The **Walton reservoir complex** provides multiple alternative roost sites if disturbance occurs (D Harris per Phelps 2023) (see Appendix 3, Figure 5). Sailing is limited to daylight hours, particularly in winter, though no specific restrictions are in place (D Baldwin per Phelps 2023) (See Appendix 3, figure 5).
52. **Brogborough Lake, Bedfordshire** (52.04877, -0.56955, 90 hectares) – A long-established fishing site, but angling has not been noted to cause disturbance to birdlife. Public access is limited to a footpath along two sides, and while paddleboarding and wild swimming occur in summer, these activities do not appear to impact wildlife (P Nash per Phelps 2023). Windsurfing, sailing, wingfoiling, and paddleboarding are permitted year-round, but all users must leave the water by dusk (Brogborough Watersports per Phelps 2023).
53. **Llys-y-Frân Reservoir, Pembrokeshire** (51.88571, -4.85492, 86 hectares) – Historically a key roosting site for Lesser Black-backed Gull (e.g., 5,000 on 29th September 2016), recent years have seen a dramatic increase in water sports and other recreational activities. However, these generally occur on summer weekends and during daylight hours, with no apparent negative impact on the winter gull roost (J Green per Phelps 2023). The site is closed by the time the gulls roost, meaning little impact (J Green pers. comm. 21st February 2025).
54. **Hoveringham Sailing Lake** (53.01849, -0.93931, 56.6 hectares) and **Bellmoor Lake (Idle Valley Nature Reserve)** (53.37420, -0.93956, 17.5 hectares), **Nottinghamshire** – Roost numbers have steadily declined, largely due to the closure of local landfill sites. Sailing on Hoveringham Sailing Lake has not caused significant disturbance. If disturbances do occur due to sailing or nearby shooting, gulls typically relocate to the nearby Railway Lake (53.01908, -0.96912, 71.6 hectares) (K Rainford per Phelps 2023) (see Appendix 3, Figure 4). Sailing is permitted from dawn to dusk, February-September, and on Wednesdays and Sundays during other months. Members must leave the water by dusk, monitored via webcam (D Eberlin per Phelps 2023).
55. **Bartley Reservoir, West Midlands** (52.42789, -1.99515, 46 hectares) – Despite its relatively small size, this site sometimes supports over 50,000 Black-headed Gulls, 6,000 Lesser Black-backed Gulls and 1,500 European Herring Gulls [but very small numbers of Common Gulls] (Steve Haynes pers. comm. 20th February 2025). Since Phelps 2023 — which stated that sailing occurs on Wednesday afternoons and weekends in winter, with boats off the water by 4pm at the latest, and that no disturbances to gulls and other waterbirds have been observed — there has been more disturbance from human activity. Police training now takes place on site and has disturbed gulls, while picnics, bikers and fireworks have all impacted the gull roost, as well as more frequent activity from the sailing club (Steve Haynes pers. comm. 22nd February 2025).

56. **The Mere, Ellesmere, Shropshire** (52.90867, -2.88338, 46 hectares) – Generally supports a larger gull roost than Chelmarsh Reservoir (57km southeast), with recent counts exceeding 5,000 Black-headed and Lesser Black-backed Gulls (5,500 Black-headed Gulls on 19th January 2025) (T Lowe pers. comm. 28th February 2025).. Increased daytime water sports activity has not resulted in discernible impacts on gull numbers (J Martin/T Lowe per Phelps 2023), but paddle boarding has caused some disturbance (J Martin pers. comm. 27th February 2025). Shropshire Council issues annual boating and canoeing licences, specifying exclusion zones and a requirement to leave the water by 15:00 from October to March to protect roosting birds (Phelps 2023).
57. **Dungeness, Kent** – The **Lade Sands** (50.95076, 0.96696) roost is most susceptible to disturbance, though gulls often relocate offshore. Roosting is also influenced by tidal conditions. **Burrowes Pit** (50.93026, 0.94375, 43.7 hectares) offers a more sheltered and relatively undisturbed roosting site (D Walker per Phelps 2023).
58. **Bough Beech Reservoir, Kent** (42 hectares) – Regularly attracts thousands of Black-headed Gulls in winter (e.g., 5,000 on 18th February 2023). Sailing is permitted daily from 30th April to 1st October. A designated nature conservation area at the northern end is off-limits to boats, as stipulated in Bough Beech Sailing Club regulations (Phelps 2023/B Wright pers. comm. 21st February 2025).
59. **Chelmarsh Reservoir, Shropshire** (52.48576, -2.39501, 40 hectares) – Numbers of large gulls (Herring, Lesser Black-backed, etc.) have steadily declined over the last decade, partly due to landfill closures (e.g., Telford) and increased recreational use of the reservoir. However, there is no clear correlation between water sports activity and gull numbers, with Black-headed Gulls maintaining stable populations (J Martin/T Lowe per Phelps 2023). 1,870 Black-headed Gulls were counted on 18th January 2025 (T Lowe pers. comm. 28th February 2025). Winter recreational activity is limited, and members typically vacate the water well before dusk (W Ranson per Phelps 2023).
60. **Upper Bittell Reservoir, Worcestershire** (52.37519, -1.97227, 35 hectares) – Supports a significant pre-roost and sometimes full roost despite active sailing and fishing clubs (C Reed, per Phelps 2023). Upper and Lower Bittell reservoirs are jointly designated as an SSSI (Site of Special Scientific Interest) for their importance to passage and wintering waterbirds. Dinghy and sailboard races occur at 11:00 and 12:30 between October and March, leaving the water disturbance-free for roosting gulls later in the day (Barnt Green Sailing Club).

Table 1 – Comparison of key UK gull roost sites, their size, human activity and disturbance

Site	Size (ha)	Used for recreation?	Overnight activity	Observed disturbance to gulls	Restrictions in place
Rutland Water	1254	Yes	No	No	Yes
Grafham Water	627	Yes	No	No	Yes
Chew Valley Lake	485	Yes	No	No	Yes

Haweswater Reservoir	390	No	No	No	n/a
Chasewater	360	Yes	No	Yes	Yes
Blithfield Reservoir	320	Yes	No	No	Yes
Carsington Water	300	Yes	No	No	Yes
Queen Mary Reservoir	283	Yes	No	No	Yes
Draycote Water	243	Yes	No	Yes	Yes
Eyebrook Reservoir	201	Yes	No	No	Yes
Loch of Skene	144	Yes	No	No	n/a
QEII Reservoir	128	No	No	No	n/a
Brogborough Lake	90	Yes	No	No	No
Llys-y-Fran Reservoir	86	Yes	No	No	Yes
Belvide Reservoir	74	No	No	No	n/a
Knight & Bessborough	64	No	No	No	n/a
Hoveringham Sailing Lake	56.6	Yes	No	No	n/a
Island Barn Reservoir	50	Yes	No	No	No
Bartley Reservoir	46	Yes	Occasional	No	No
The Mere	46	Yes	No	Occasional	Yes
Burrowes Pit	43.7	No	No	No	n/a

Bough Beech Reservoir	42	Yes	No	No	Yes
Chelmarsh Reservoir	40	Yes	No	No	No
Upper Bittell Reservoir	35	Yes	No	No	Yes
Bellmoor Lake	17.5	No	No	No	n/a

H — Other regional gull roost sites

61. This section details other large inland water bodies within 35km of Bewl Water and their status as gull roosts.
62. This information for other reservoirs in Sussex and Kent is sourced from data provided in response requests to the Sussex Ornithological Society and Kent Ornithological Society. Coordinates are provided for each site, and they are listed in alphabetical order.
63. These are the closest roost sites to Bewl Water, but no sites regularly hosting roosting gulls are within 20km of the site, meaning they do not offer viable alternatives if gulls are disturbed at or after dusk at Bewl Water, and there are no large water bodies within 10km. Darwell Reservoir is the nearest large water body, 12km SSE of Bewl Water, but generally does not host roosting gulls, indicating that it would not be a suitable alternative for birds using Bewl Water. See Appendix 3, which shows the distance of the nearest three of these sites to Bewl Water in Figure 1 and a wider view of regional sites in Figure 2.
64. **Ardingly Reservoir, West Sussex** (51.04770, -0.10336, 74 hectares): 28th January 2022, 3,400 Black-headed Gulls; 2nd January 2021, 3,131 Black-headed Gulls; 20th January 2024, 3,163 Black-headed Gulls.
65. **Arlington Reservoir, East Sussex** (50.84584, 0.17706, 49 hectares): 29th November 2015, 7,390 Common Gulls; 26th November 2021, 5,000 Black-headed Gulls; 12th January 2020, 5,000 Black-headed Gulls; 19th January 2024, 11,670 Common Gulls, 7,350 Black-headed Gulls.
66. **Barcombe Reservoir, East Sussex** (50.91685, 0.04802, 16 hectares): 19th February 2021, 1,500 Black-headed Gulls; 22nd December 2024, 1,200 European Herring Gulls, 1,000 Black-headed Gulls.
67. **Bough Beech Reservoir, Kent** (51.21923, 0.14169, 42 hectares): 18th February 2023, 5,000 Black-headed Gulls; 9th January 2001, 1,000 Common Gulls & 1,000 Lesser Black-backed Gulls.
68. **Darwell Reservoir, East Sussex** (50.96403, 0.43900, 63 hectares): 13th February 2000, 1,400 Black-headed Gulls.
69. **Weir Wood Reservoir, East Sussex** (51.09507, -0.01016, 113 hectares): 14th December 2015, 4,500 Black-headed Gulls; 14th December 2020, 3,930 Black-headed Gulls. 30th December 2023, 2,650 Black-headed Gulls, 260 Common Gulls.

I— The limitations of the data

70. There may be inconsistencies in data collection across roosts. Gull roost counts across different sites have been collected using varying methodologies, making direct comparisons challenging. Some counts are undertaken on a casual basis with no formal protocol followed, while figures originate from surveys such as the Winter Gull Survey. The time at which counts are made in relation to dusk may vary from site to site and between visits. Observer skill in identifying gulls, a notoriously difficult group to recognise to species, is likely to vary. Some observers may attempt to make precise counts with click-counters, while others may be reporting rough estimates to the nearest 10, 100 or even 1,000.
71. Large roosting congregations can be difficult to count accurately, particularly under poor visibility conditions. Also, gulls may disperse across multiple sites on different nights, leading to possible underestimates or double counting in some cases.
72. The regularity of data varies from site to site too, with some roost sites benefitting from long-term monitoring, while others rely on sporadic observations by local birders and surveyors. Especially at sites with infrequent counts, gull roost data often does not account for variations in weather conditions, making it harder to determine long-term population stability.
73. Fluctuations in gull numbers at roost sites may be influenced by factors such as landfill closures, climate variations and food availability, but these relationships are not well-documented.
74. In terms of the effects of disturbance, while some sites report visible disturbances, others lack sufficient data to assess whether human activities directly impact gull roosting behaviour.
75. While it is possible to identify possible sites where displaced gulls may relocate, it is very difficult to assess whether these alternative sites can support increased populations in the long term.
76. Further systematic monitoring and comparative studies are needed to assess the full ecological significance of sites like Bewl Water and better understand the impacts of disturbance and weather conditions.

J — Findings

Human disturbance is a risk to gull roosts

77. Evidence from the review of significant national gull sites in section G shows that human disturbance can lead to declining gull numbers at roost sites, as sites such as Chasewater and Bartley Reservoir, which have seen increased levels of water sports and lakeside activities, have seen corresponding declines in gull numbers. Sites without such increases in activity have maintained stable numbers of gulls overall. See section K for further detail. **Site management strategies affect gull roost stability**
78. Observations from other major roosts in the UK indicate that appropriately regulated recreational activity can reduce the impact on gull numbers.
79. **Rutland Water, Leicestershire, and Grafham Water, Cambridgeshire,** have maintained large gull roosts despite high visitor numbers by implementing zoning restrictions and limiting water-based activities during key periods.

80. **Loch of Skene, Aberdeenshire**, has been designated as a Site of Special Scientific Interest (SSSI) in part due to its Common Gull roost.
81. **Draycote Water, Warwickshire**, enforces limits on evening sailing and angling to prevent disruption to roosting birds.

Further research is required to assess the full impact of disturbance associated with possible development

82. While existing data strongly suggests that increased human activity threatens Bewl Water's gull roost, further studies are necessary to quantify the potential impact on gull numbers.
83. Specifically, more detailed research is needed on the impact of nocturnal lighting, visitor noise and increased water traffic on the behaviour and stability of gull roosts.



Adult Black-headed Gull (David Campbell).

K — The impact of inappropriate recreational and commercial activity on birds and wildlife at Bewl Water

Increased human disturbance

84. Expanded tourism facilities (such as the overnight accommodation in the form of year-round yurts in Planning Application WD/2023/2424/FR) will result in more general lakeside activity. This would include activity at dusk and overnight, which risks reducing the number of gulls using the roost, as studies report that roosting gulls are sensitive to disturbance, particularly sudden noises, artificial lighting and unfamiliar activity (all of which are likely to increase with new overnight accommodation) during their peak roosting hours (e.g. Hickling 1957, Hockin et al 1991 per Phelps 2023).

85. With additional disturbance, the breeding success of Common Gulls using Bewl Water as winter a roost risks being compromised. Given the high numbers using the roost, this poses a risk to wintering numbers at a national level. The roost has enjoyed relatively little disturbance to date, which is likely a factor in the nationally significant counts. Ankney & MacInnes (1978) states that winter disturbance risks a negative impact on gull breeding success.
86. Increases in water sports, fishing and boating activities risk reducing other waterbird populations through additional disturbance. Restrictions on these activities at dusk and overnight must be maintained and followed to protect the gull roost. However, an increase in tourist accommodation means a greater chance of disturbance occurring through restrictions being ignored or disregarded. When this occurs at dusk or at night in the vicinity of the roost, disturbance events are likely to occur.
87. As the gulls are the most significant ornithological feature of Bewl Water, and roosting gulls are especially vulnerable to overnight disturbance due to their social behaviour (a few spooked gulls can lead to a mass disturbance event), nocturnal activity presents the biggest risk to Bewl Water's avifauna.

The gulls roosting at Bewl Water are particularly susceptible to the negative impacts of disturbance due to the lack of suitable alternative roost sites nearby to move to in the wake of disturbance events (see Appendix 3, Figure 2). **Habitat degradation from development**

88. The proposed developments in para 3 would result in increased visitor accommodation and expanded infrastructure along the shore of the reservoir. Construction activity will inevitably lead to disturbance and at least some habitat loss for other wildlife.
89. Increased foot traffic in sensitive areas may lead to soil erosion, disturbance to nest sites and disturbance to feeding birds and other wildlife.

Reduced food availability for birds

90. The decline of landfill sites, which have historically been a major food source for gulls, has already been linked to population drops at several major UK roosts.
91. If Bewl Water's surrounding environment becomes less suitable for foraging due to habitat changes or increased competition from human activities, the gull roost may decline.
92. Water pollution or increased recreational fishing could reduce fish populations, impacting fish-eating species that rely on the reservoir as a feeding site.



Adult Lesser Black-backed Gull (David Campbell).

L— Recommendations

93. The following recommendations are proposed to safeguard the ecological importance of Bewl Water:

Formal conservation designation

94. Bewl Water qualifies for SSSI designation on the basis of its Common Gull roost, the largest in the UK. Application for SSSI status should be pursued.

Long-term gull monitoring

95. Structured, long-term monitoring should take place to assess gull population trends and behavioural responses to human activity at Bewl Water, especially if the proposed developments do go ahead. Regular counts should be carried out using standardised methodology.
96. This should include:
- Monthly winter roost counts (October–March) to assess population stability.
 - Recording of human activity levels and their potential disturbance effects.
 - Monitoring of any habitat changes associated with development.

Mitigation measures for recreational activities

97. Measures should be introduced to manage recreational use of the reservoir to minimise disturbance to the gull roost and other birds, including:

- **Time restrictions:** Maintain no water-based activities within two hours of sunset and for an hour after sunrise during the key winter roosting period (October–March).
- **Noise pollution restrictions:** Between October and March, strict noise control measures should be put in place for the shoreline within two hours of sunset and for an hour after sunrise. This should ensure that music and other artificial sounds are not played and that voices are kept at a low volume, with no activities taking place that require shouting.
- **Lighting restrictions:** Minimise artificial lighting around the reservoir to prevent disturbance to the gull roost. Accommodation should have a policy or drawn blinds or lights off from dusk. Outdoor lighting associated with recreational activities should be prohibited. Low-powered **red** LED torches with a power of no more than 5 lumens should be provided to staff and visitors for safe access along designated routes between dusk and dawn.
- **Dog control:** Dogs should be kept under close control at all times, and kept on lead within two hours of sunset and for an hour after sunrise from October to March, both in order to minimise the risk of pets directly disturbing gulls, and as a measure to reduce noise pollution from owners calling their dogs.

Environmental impact assessments (EIAs) or developments

98. Any future planning applications for visitor facilities, water-based activities or infrastructure expansion should require a thorough EIA covering:
 - Potential disturbance to the gull roost, including from noise and light pollution.
 - Habitat degradation risks.
 - Possible displacement effects.
99. Development proposals should be amended where necessary to mitigate any identified risks to the gull roost.

Public awareness and stakeholder engagement

100. Increased awareness of the ecological significance of Bewl Water should be promoted among visitors, local communities and businesses. This could include:
 - Signage and educational materials explaining the importance of the gull roost and the need for minimal disturbance.
 - Engagement with water sports operators, anglers and tourism stakeholders to develop best-practice guidelines.

Research on disturbance impacts

101. Additional studies should be undertaken to assess the impact of human activities on the Bewl Water gull roost. Areas of focus should include:
 - Bird activity monitoring to assess behavioural changes linked to disturbance.
 - The effect of visitor numbers and infrastructure on roost numbers.
 - Comparative studies with other major UK gull roosts

Oversight and adaptive management

102. Local authorities should ensure that any approved developments are accompanied by ongoing ecological monitoring. Adaptive management strategies should be put in place, allowing for conservation measures to be adjusted in response to emerging data on gull population trends and disturbance levels.

M — Conclusions

Bewl Water's importance as a nationally significant gull roost

103. Bewl Water is one of the most important winter gull roosts in the UK, regularly supporting over 10% of the national Common Gull population and hosting total gull numbers exceeding 100,000 in some years. It is all the more significant due to the lack of alternative inland roost sites in the surrounding area. Any disturbance to this site could have substantial consequences for regional gull populations, particularly the Red-listed Common Gull and Amber-listed Black-headed Gull.
104. Bewl Water plays a critical role in supporting wintering gull populations on a national level, particularly in the case of Common Gull, and is one of the most important roost sites in the UK.
105. Observations from other UK reservoirs indicate that human disturbance can have noticeable negative impacts on local gull populations, perhaps leading to abandonment when disturbance becomes excessive. With Bewl Water lacking nearby alternative roosts, any level of additional disturbance risks serious consequences for gulls, not only in the context of the local roost but also for the birds once back on their breeding grounds.
106. SSSI designation (due to the number of Common Gulls (consistently over 1% of the UK wintering population, sometimes over 10%) that use it as a winter roost) would provide a framework for improved protection and conservation measures. Further research is needed to fully understand the potential impacts of planned developments and to explore possible mitigation strategies. Careful management and regulatory oversight will be essential to balance conservation priorities with recreational and commercial interests at Bewl Water.
107. Across the UK, large inland water bodies serve as important winter roosts for gulls. While many sites have successfully managed recreational use to minimise disturbance, others have experienced declines due to increasing human activity. Bewl Water stands out as the most significant Common Gull roost in the country, but its stability faces a higher risk of disturbance due to its lack of alternative roost sites. Careful management and potential conservation designation should be considered to safeguard its ecological importance.
108. The biggest threats to birds and wildlife at Bewl Water are associated with increased human disturbance and recreational activities, and habitat degradation due to associated development. While current recreational use may allow for coexistence, any additional disturbance could have significant impacts on the gull roost.
109. Additional studies and conservation measures should be considered to mitigate these risks and protect the site's importance as a vital wildlife refuge.

Increased risk from approved developments

110. The recent approvals of planning applications WD/2023/2424/FR and WD/2023/1895/MAJ represent new risks to the Bewl Water gull roost.
111. **Year-round yurt accommodation** (WD/2023/2424/FR) will increase human activity near the northern shoreline, introducing potentially detrimental disturbance to the gull

roost associated with artificial lighting, noise pollution and general human activity. Such activity at night is likely to lead to disturbance, risking the stability of the gull roost, which is particularly vulnerable due to the lack of alternative roost sites in the region.

112. **A campsite of up to 80 pitches** (WD/2023/1895/MAJ), operating between April and September, may add to visitor pressure and disturbance, although this period largely avoids the winter roosting season (though a count of 4,200 Common Gulls at Bewl Water on 1st April 2006 indicates limiting the season to May-September would avoid risking disturbance to gulls before they head to their breeding grounds).
113. **Retention of portacabins and additional infrastructure** may add to increased artificial lighting, noise pollution and general disturbance if not properly managed.
114. Without mitigation measures, these developments could result in partial or complete roost site abandonment, as seen at other UK reservoirs where recreational expansion has impacted gull roosts negatively.

The need for stronger protection

115. Despite its ecological significance, Bewl Water currently lacks formal protection. As it meets the criteria for SSSI designation, efforts should be made to secure this status to ensure long-term safeguards for the site's ecology.

The importance of sustainable management

116. Evidence from other major gull roosts in the UK shows that careful management, such as zoning, time limits and habitat protection, can balance recreational activities with wildlife conservation.
117. If similar approaches are applied at Bewl Water, it may be possible to accommodate limited increases to tourism while minimising disturbance to roosting gulls.
118. However, failure to regulate human activity could permanently alter the site's ecological role, reducing its capacity to support large wintering gull populations.

A path forward

119. To protect Bewl Water's as an important wildlife site, it is essential that:
120. **Strict visitor and noise controls** are put in place. These should include time restrictions for access to the lake shore near the gull roost, restrictions to artificial light (as per para 36) and enforcement of quiet hours from dusk till dawn, when music cannot be played on speakers and voices are to be kept at speaking volume.
121. **Sustainable tourism guidelines for the site** are created and enforced, with a focus on minimising disturbance to wildlife and promoting considerate use of the site. These should cover the light and noise controls in para 60, as well as encouraging the public to be mindful of the site's wildlife and behave accordingly, including an emphasis on avoiding overnight disturbance.
122. **Long-term monitoring** is conducted to assess ecological changes.
123. While there may be potential economic and recreational benefits from the proposed developments, conservation priorities must be integrated into site management to ensure that Bewl Water remains a vital stronghold for the UK's wintering gulls and any visions of large-scale tourism and recreation infrastructure are incompatible with maintaining the site's ecological value.



Adult Common Gull (David Campbell).

Appendix 1 Expert Witness Statement —David Campbell

Professional roles

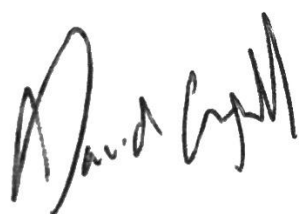
124. **SIGHTINGS & CONTENT EDITOR – 2013-present –BirdGuides/Birdwatch Magazine, Warners Group Publications PLC:** Five years after joining the BirdGuides news team, I ascended to the position of Senior News Operator. The role involves gathering and disseminating fast, accurate news updates on rare and scarce birds across the British Isles and the Western Palearctic. In addition to manning the news desk, I write regular pieces for the BirdGuides online magazine. This includes many articles in the Focus On series, which looks at relevant birding opportunities and identification challenges, and regularly covering the Review of the Week. My work also appears regularly sister print publication *Birdwatch Magazine*, including feature pieces and overseas press trip coverage.
125. **FIELD ORNITHOLOGIST – 2013-2021 – Birdbrain UK Ltd:** I undertook a wide range of fieldwork projects, including Black Redstart surveys in the West Midlands, WeBS-style surveys in the Lee Valley and the Thames Estuary, Breeding Bird Surveys in Sussex and East Anglia, and Winter Bird Surveys in Kent and other areas.
126. **ASSISTANT WARDEN – 2016 – Dungeness Bird Observatory, Kent:** I worked the post of Assistant Warden at one of Britain's flagship bird observatories. My time at Dungeness saw me constantly gathering ornithological and other wildlife records in the field, managing habitat and data, and engaging with the public on the observatory's natural history work.

127. **INDEPENDENT ORNITHOLOGICAL CONSULTANT – 2019 – University of Sussex:** I worked as an ornithological consultant on a research project for the university, analysing bird sound recordings from autonomous recorders placed at sites across Sussex.
128. **FIELD ORNITHOLOGIST – 2021-present – Adonis Blue Environmental Consultants:** I work as an ornithological consultant for this non-profit consultancy associated with the Kent Wildlife Trust. This has been me undertaken a range of species-specific and general bird surveys, including: Black Redstart surveys, Breeding Bird Surveys, Winter Bird Surveys, ringing surveys (mist netting and nocturnal with thermal imager) and coastal disturbance surveys.
129. **DIRECTOR AND GUIDE – 2021-present – Wildstarts Nature Ltd:** I operate my own birding and nature private tour company. By 2024, this had grown considerably with that calendar year seeing over 70 private tours arranged and completed by the company, receiving 5-star reviews all-round.
130. As well as manning the BirdGuides news desk and producing content for the website and *Birdwatch Magazine*, my work has appeared in publications such as *Bird Watching* and *Waterfowl*.
131. From 2011 to 2017, I authored the terns section of the London Bird Report.
132. 2015 saw me adopt the role of London Bird Club's Surrey Recorder while taking a seat on the Surrey Bird Club Records Committee and I continued this till 2018.
133. In 2018, I was invited to join the Sussex Ornithological Society Records Committee, just a few months after moving to the county. From 2019 to 2022 I took on the mantle of Swift Champion for the SOS, coordinating the conservation of Common Swift across Sussex.
134. From 2020 to 2023 I took on the role of Recorder for the SOS and wrote sections of the Sussex Bird Report.

STATEMENT

135. The report has been produced to provide expert ornithological evidence on the impacts of recreational activity on the internationally significant gull roost at Bewl Water.
136. The work in this report is my own, building on Phelps (2023).

Signed:



David Campbell

Independent ornithologist & ecological consultant
13 May 2025

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Appendix 3 Maps of Bewl Water and other regional reservoirs

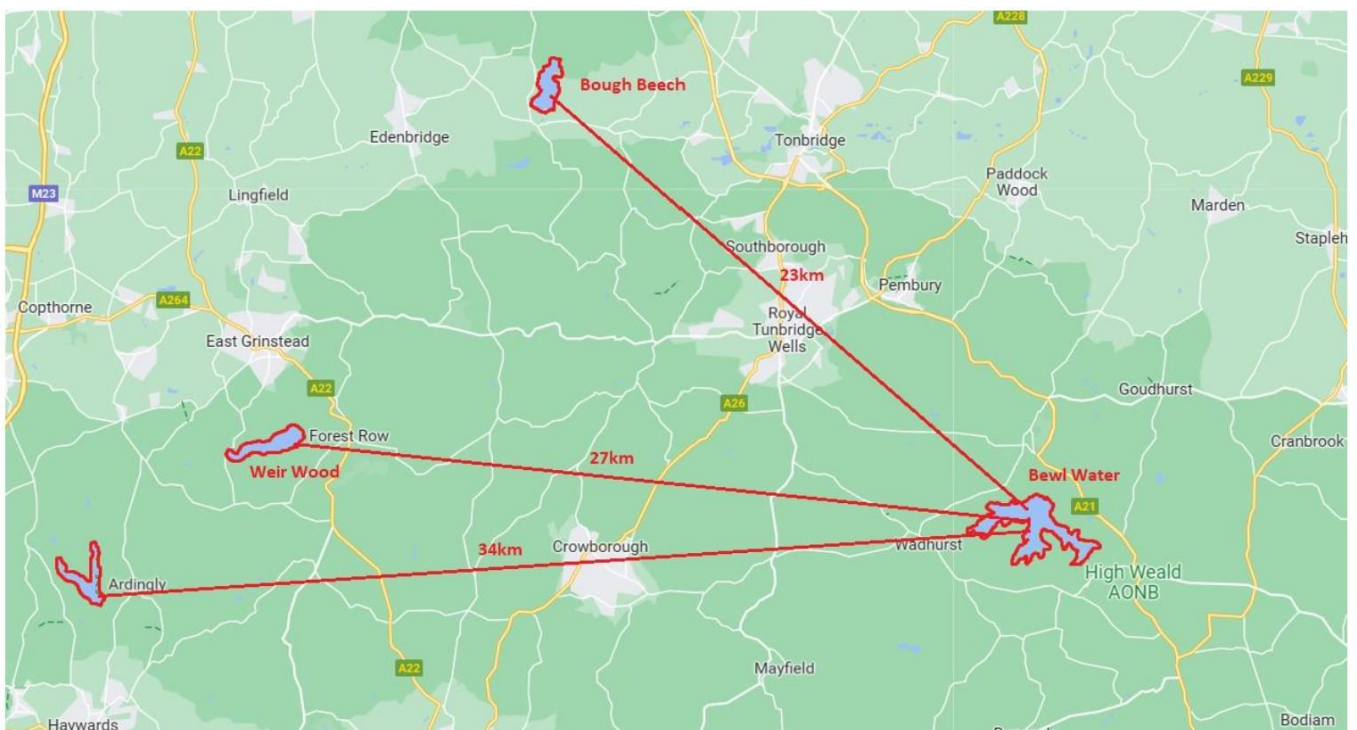


Figure 1 - Bewl Water in the context of the wider East Sussex and Kent landscape. There are no other large water bodies within 20km of the site that regularly host sizeable gull roosts (from Phelps 2023).

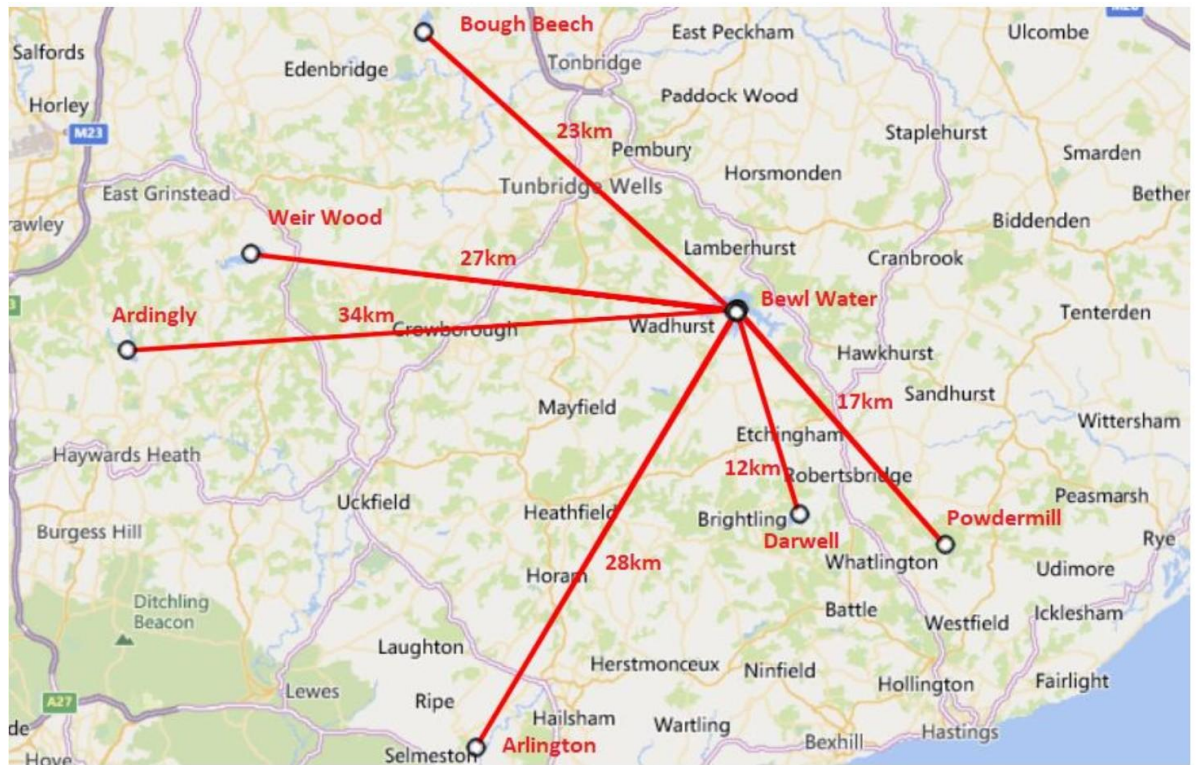


Figure 2 - Wider scale map showing all large inland water bodies within 35km of Bewl Water, the nearest being Darwell and Powdermill Reservoirs, neither of which have ever held significant roosts (from Phelps 2023).

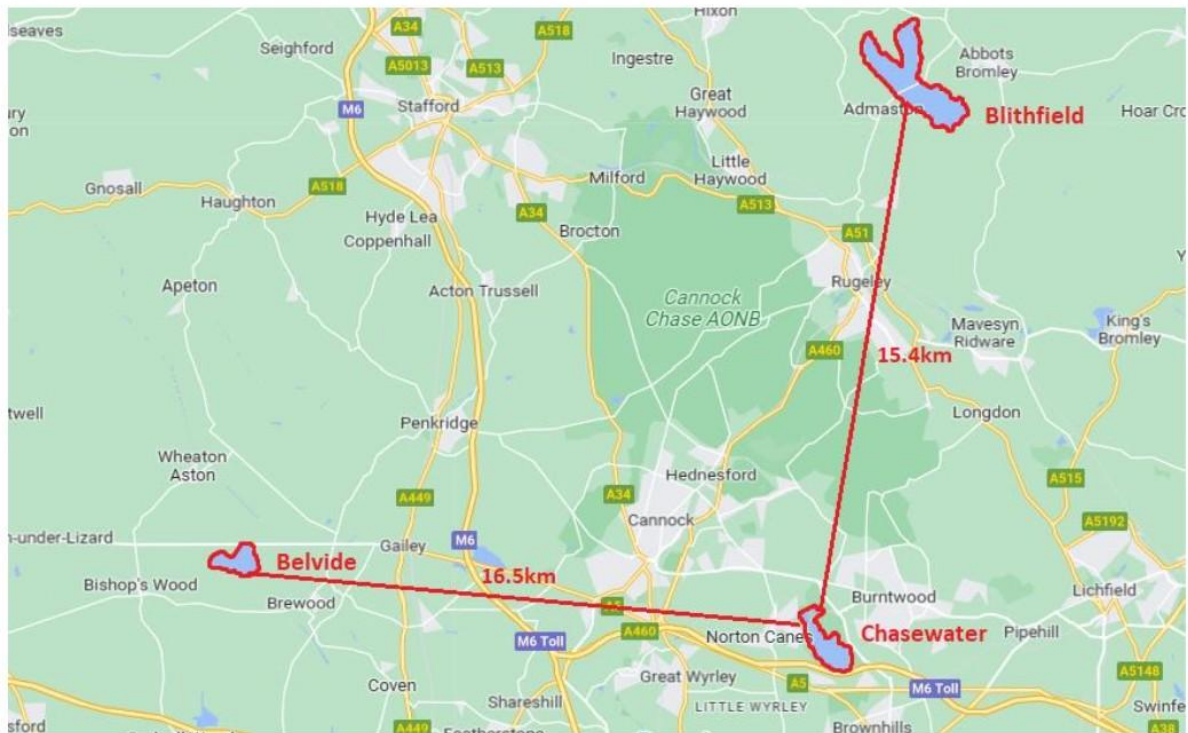


Figure 3 - The Cannock Chase group of roost sites in Staffordshire, in comparison to Bewl Water (and to the same scale as Figure 1 – 1:33333). These sites are all just over 15km away from one another;

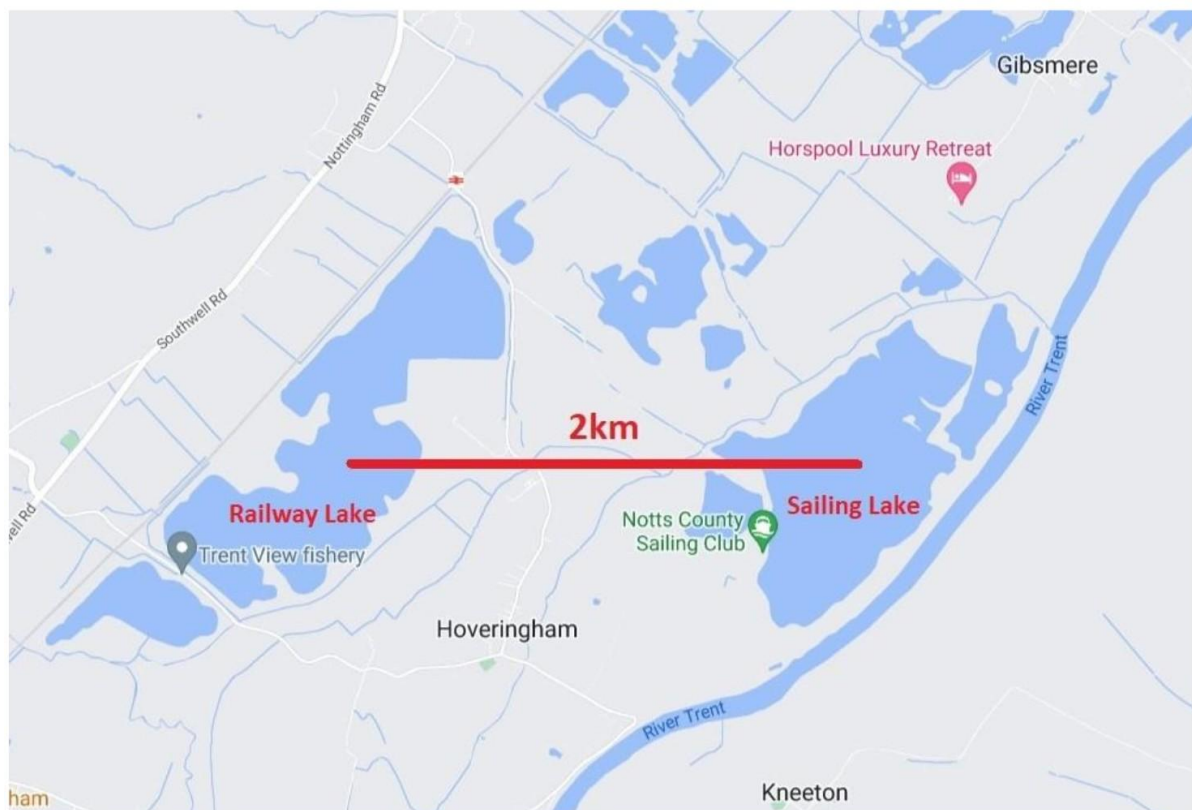


Figure 4 - Hoveringham Sailing Lake and Railway Lake in Nottinghamshire, between which roosting gulls regularly commute in the event of disturbance (from Phelps 2023).

allowing for gulls to choose alternative roost sites, if disturbed from Chasewater; the primary roost (from Phelps 2023).

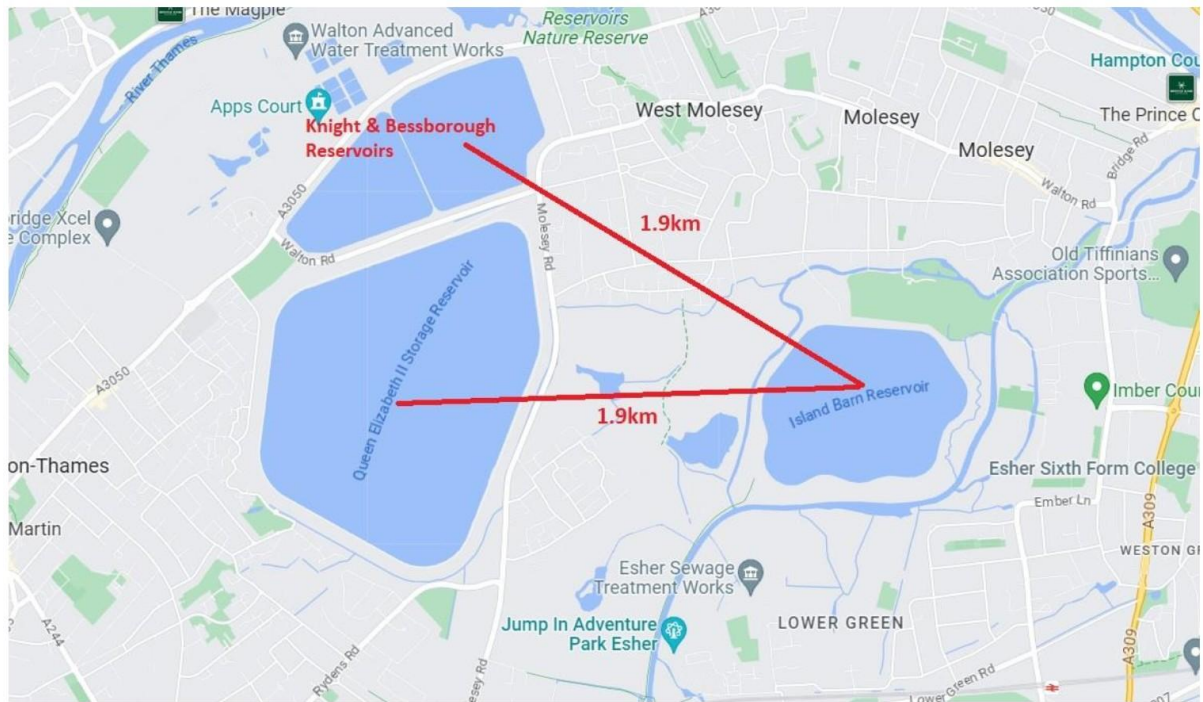


Figure 5 - Map of the Walton-on-Thames reservoirs complex in Surrey, showing proximity of alternative roost sites in the event of disturbance (from Phelps 2023).

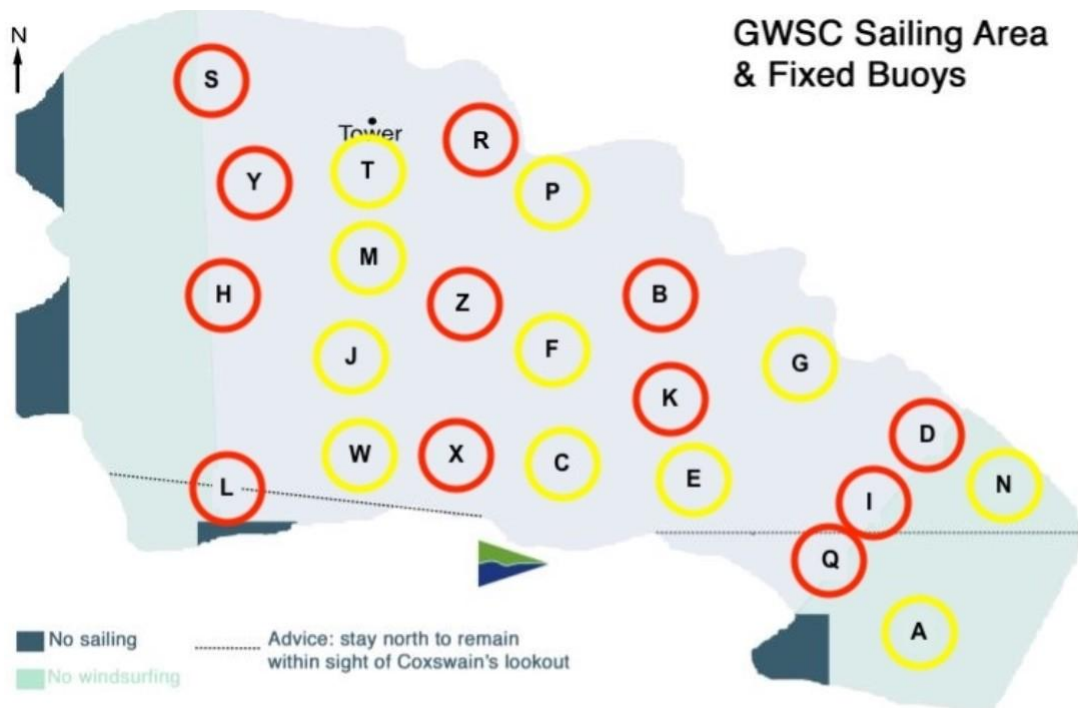


Figure 6 - Restricted areas for sailing on Grafham Water, Cambridgeshire (from www.grafham.org/on-the-water.html)

Appendix 4 Zoning for water sports at Bewl Water



Figure 7 – Water sports map of Bewl Water — the central area off the dam is preferred by gulls and sensitive to disturbance from proposed developments (from www.bewlwater.co.uk/activities/water-sports).

Appendix 5 Plans of Carsington Water



Figure 8 - Map of Carsington Water showing zoning for sailing and other water sports activities (www.carsingtonwater.com/launch).

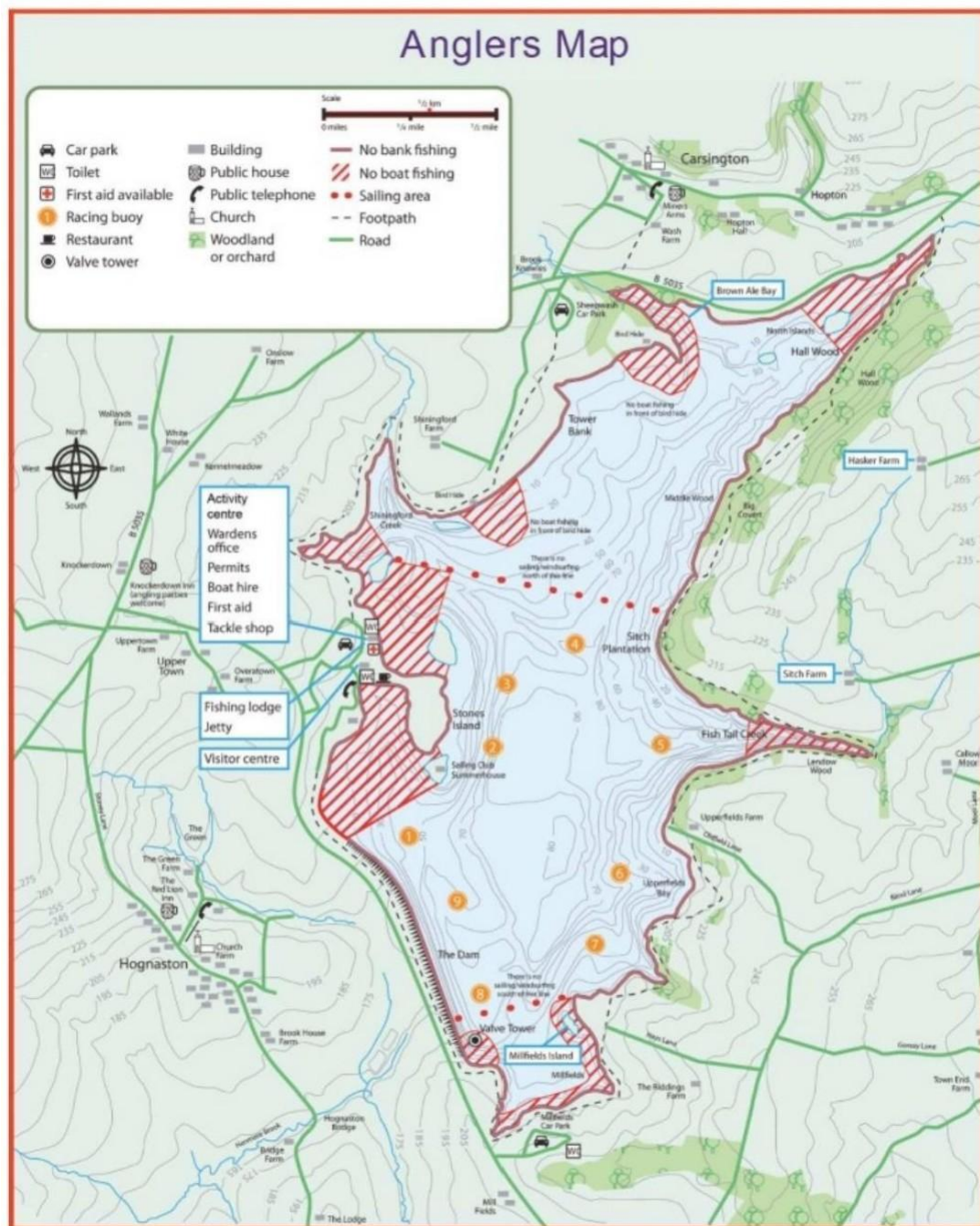


Figure 9 - Map of Carsington Water showing zones areas for angling (carsingtonwater.com/docs/anglersmapv2.pdf).