

BOURNEMOUTH-SWANAGE MOTOR ROAD FERRY COMPANY

TOLL REVIEW APPLICATION – PUBLIC INQUIRY

INQUIRY DOCUMENTS LIST

BUNDLE 3 – APP- FERRY COMPANY

	Document	Page Number
APP/1	Proof of Evidence of Kevin Thomas	2 - 12
APP/1a	Appendices to Proof of Evidence of Kevin Thomas	13 - 47
APP/1f	Rebuttal Proof of Evidence of Kevin Thomas	48 - 69
APP/2	Proof of Evidence of Michael Kean	70 - 84
APP/2a	Appendices to Proof of Evidence of Michael Kean	85 - 271
APP/2b	Rebuttal Proof of Evidence and Appendices of Michael Kean	272 - 310

IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON THE BOURNEMOUTH-SWANAGEMOTOR ROAD & FERRY LINK

FINANCIAL STATEMENT AND RESPONSE – NOVEMBER 2024

PREPARED BY KEVIN THOMAS, ACCOUNTANT AND TAX ADVISER, RICKARD LUCKIN

1Introduction

1. This report has four sections:-

- Section A provides information to the Inspector confirming that, save for one correction, the Ferry Company's financial information has not significantly changed since the filing of the Application.
- Section B sets out new projections following the proposal by the Ferry Company to delay implementation of the base tolls by 12 months and increase the discounts on bulk tickets and Sandbanks Ferry Ticket (SFTC) passes. These proposals are in response to objections made following the filing of the Application, and seek to address those concerns, while being mindful of the need to ensure that the annual revenue is neither substantially more, nor substantially less, than is adequate.
- Section C considers the proposals that have been advanced by the Consortium and explains why, in my opinion, the Consortium proposals if adopted would be likely to result in the Ferry Company receiving an annual revenue substantially less than is adequate to meet its revenue requirements together with a reasonable return.
- Section D seeks to address some of the financial issues that have been raised by other objectors in relation to the Ferry Company's Application.

Section A: Financial Information

2. I produced the evidence attached to the explanatory note dated 12th July 2024.
3. I have reviewed those figures and, save as below, do not see any reason to depart from them as at the date of this statement.
4. In the Consortium objection at paragraph 2.5, the Consortium points out that the projected volumes in the Application at Appendix 5.2 as derived by dividing income by class by the relevant tolls were lower than those set out in Appendix 5.1. I accept this observation. I now attach at Appendix A a corrected version of Appendix 5.2, in substitution of the earlier one, with the projected traffic volumes corrected. These new traffic volumes result in a higher income.
5. The overall figures are improved but not materially. Applying these new figures, the Ferry Company will still not be able to pay any dividend until 2030. That dividend will be £352,614.
6. Moreover, if the tolls are not revised as requested, that in two of the forecast years, the major refit years of 2027 and 2031, the Ferry Company will make a significant loss. For

information, the major refit years are those years when the Ferry is transported to the ship repair yard to undergo major maintenance works. This is necessary to ensure the safe and reliable performance of the ferry. It is extremely costly, as it includes the costs of removing the ferry from the chains, towage to and from the ship repair yard, docking and mooring charges, professional fees, and the costs of the work themselves.

7. I further confirm that if the current Order regulating ticket prices remains in place there will be insufficient funds to make the necessary contribution to the Ferry Replacement Reserve (“FRR”) so that the ferry can be replaced at the end of its useful life and that in every forecast year, for the foreseeable future, there will be no return at all to the investors.
8. However, if in line with its Application, the Ferry Company is permitted to increase its fares by CPI from the suggested starting point, to gradually reduce the discount provided on advance tickets and introduce a road toll then it will make a profit in the years prior to the introduction of the new ferry. This will result, in the early 2030s for there to be sufficient funds in the FRR which, together with the Ferry Company’s maximum permitted borrowings will produce a sum that is sufficient to buy a new ferry and to allow the Company to pay a return, to its investors. This will be the first return in 12 years.
9. At the last inquiry, I set out how no dividends were paid in the years ending 31st March 2019 and 2020. I also gave evidence that the dividends would not be paid for 2021 and were unlikely to be paid in 2022. Events have shown this to be correct. A dividend was not paid in 2022 or 2023 and, on the present projections set out in the Application at Appendix 2.1 there would be no prospect of any dividend at all during the forecast period should the current Order remain in place. This follows from the various unforeseen (and unforeseeable) financial challenges that have arisen, as detailed in the main body of the Application.
10. The statutory test provides that the ferry investors should receive a reasonable return. What constitutes a reasonable return will be informed in part by the level of risk being taken on by the investor, and likely rates of return readily available elsewhere.
11. Investing in a small private company is naturally much more risky than investing in, say, a balanced managed stock market portfolio. Such a balanced investment in a stock market portfolio over the last few decades would have generated an average return 5.4% in the years between 1982 and 2022.¹ As such, a return of less than that level for what is a much higher risk investment, would be a poor return: one would expect that a reasonable return should be commensurate with the higher risk.
12. In light of the financial risk involved, a rate of return of less than 5% is low given the following factors:-
 - Difficulties increasing income.
 - Significant capital investment.
 - Fixed operating profile and expenses.
 - Restrictive access to external financial support including bank borrowings.
 - Lack of Government Grants, funding and support.

¹ <https://www.ig.com/uk/trading-strategies/what-are-the-average-returns-of-the-ftse-100--230511#:~:text=From%201984%20to%202022%2C%20the,a%20total%20return%20of%207.48%25.>

13. The total return on the FTSE 100 between 2012 and 2022 was 6.3% (<https://www.ig.com/uk/trading-strategies/what-are-the-average-returns-of-the-ftse-100--230511>). Assuming such returns continue then allowing for risk, lack of marketability and related factors, it might be argued that a good return for this company should be a minimum of 10% and possibly higher.
14. In this case, however, even if the revised tolls are approved in my view the Ferry Company will be making significantly less than what I would consider to be a reasonable return. The predicted average shareholder return in each year covered by the Application, even amended, is 1.2%.
15. In my view, even on the basis of revised tolls, the predicted return is significantly less than would be expected by an independent third-party investor, investing in a private trading company, for a period of more than 15 years.

Section B

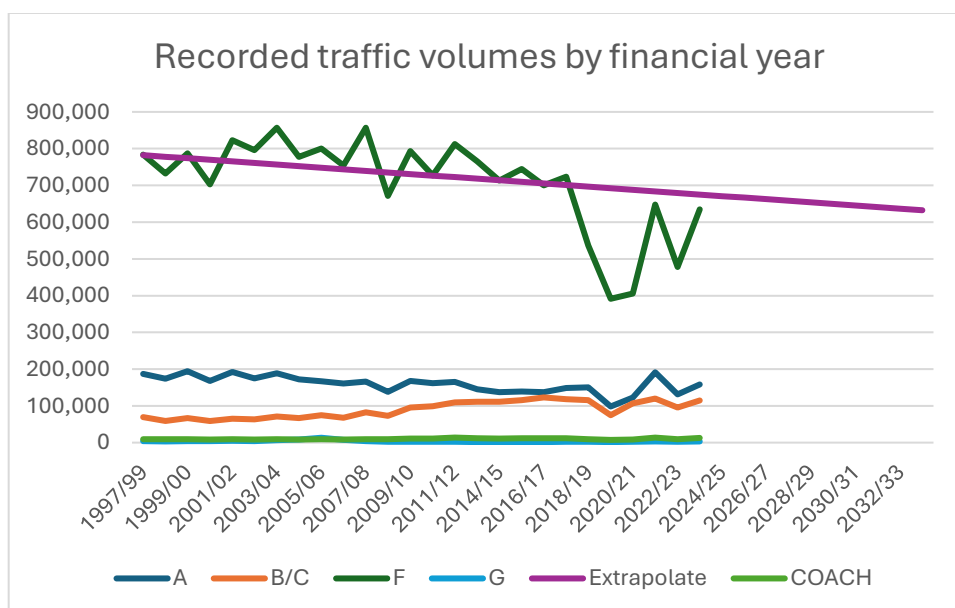
16. I have been instructed by the Ferry Company, following publication of the Application and having taken into account the points made by various objectors, that they now propose to phase in the reduction of the multi-buy purchase (or 'bulk buy') discounts in a more gradual way and with a greater level of discount.
17. At Appendix B is a spreadsheet setting out those proposed new discounts with a comparison of the percentage changes.
18. The discounts on multi-buy purchases are significant. For example, for a book of 50 tickets for a pedestrian, the new proposed discount is 43.18% in the first year 2025, gradually reducing until 2029 to 24% after which it remains constant at 24%. The original proposal was for a discount of 15%.
19. A similarly more gradual approach is taken with 50 passes for motor cars where the discount begins at 39.57% in 2025, and again gradually reduces until 2029 to 28% where again it then remains constant. It was originally proposed that this discount was to be 32% reducing to 20%.
20. In practical terms in 2025, a pedestrian, taking advantage of a book of 50 tickets will cross for 99p as opposed to £1.51. In 2028, the same pedestrian will cross for £1.40 not £1.59. In this context it will be noted that ticket prices for foot passengers have been maintained at £1 (and in real terms have decreased) since 2009.
21. For car drivers, again using the book of 50 tickets, the effect will be similar. They will cross for £3.78, not £4.52 in 2025, and for £4.75 not £5.36 in 2028
22. I understand that the Ferry Company has proposed this change to its original Application to address the following issues:-
 - To delay the initial RPI increase by 12 months.

- To reduce the initial impact of the regular traveller fare increases by spreading them over the initial 4 years.
 - To provide greater discounts to local people, by increasing the discounts on advance purchases
23. I was asked by the Ferry Company to calculate the effect of these additional discounts set out above. These calculations are at **Appendix C**. The increase in the discounts to 24% and 28% for the rest of the forecast period is financially significant. They substantially reduce the profit and, essentially, the dividends payable. As such they substantially reduce the return on investment.
24. The detail is in the documents at Appendix C, particularly the Profit and Loss Account at Appendix 2.2. In essence however, the impact of these increased discounts would be that the first dividend is not paid in 2030, but in 2033 (and so there would be no return on investment until that year, noting that there has been no dividend paid since 2018). The first dividend, which would be paid in 2033 would be £227,781, and in the following year, 2034, the dividend would be £512,203. This is a total of £739,984.
25. In my original projections, as corrected, in the same four-year period (2030 to 2034), the Company would have received a dividend of £2,583,596.
26. A similar reduction in profits and therefore dividends, continues for the rest of the forecast period.
27. As part of my re-calculation based on corrected traffic projections but with the above concessions in respect of delayed implantation of increases and lessened reduction of multi-purchase discounts, the FRR would be in a more healthy position with a surplus of £1,000,000 as opposed to £500,000. This buffer this provides some (albeit limited) cover for additional unforeseen costs such as the recent increase in National Minimum Wage and employers National Insurance Contributions announced in the Autumn 2024 Budget.
28. I calculate that the average return to the investors between 2024 and 2034 would be, under this revised proposal 0.3% per annum.
29. This revised proposal would in my view mean that the Ferry Company receives an annual revenue sufficient to meet its revenue requirement however, given my opinion as to what is a reasonable return, it is at least highly arguable that the return would be below what would reasonably be expected by an investor in the circumstances.

Section C: Consortium

30. As before, in my opinion, the Consortium proposals if adopted, would be likely to result in the Ferry Company receiving an annual revenue substantially less than is adequate to even meet its revenue requirements, still less to deliver any return on investment (and plainly not a reasonable return). The Consortium proposals fail to meet the basic statutory test.
31. I believe that there are three main areas where the Consortium proposal can be criticised:-
- The reliance upon increasing traffic volumes.
 - The failure to account for the loss of revenue in refit years.

- The decision to add an additional category of motorcycle.
32. I accept that the projections prepared by me assume static annual ticket sales between 2025 to 2040. In my view, this is a prudent approach, based on an adjusted average of 2018 & 2024 volumes to reflect historic data showing a decline in traffic.
 33. This assumption of a constant level of travel is not based on external sources about traffic generally on non-tolled roads (unlike the Consortium's approach), but instead is based on the specific data as to traffic levels on the Ferry historically and over time. This evidence suggests that the number of journeys taken on the ferry will remain constant or otherwise decline in the period from 2025 to 2040. As such it is reasonable to assume, at most, constant levels of traffic.
 34. I have noted, in particular, the reliance on the Consortium by the NTEM growth factors and the prediction that car driver trips will increase by 5%. In my view, applying this prediction as to traffic changes on roads in general to the specific case of the Ferry (i.e. a tolled private crossing) is not supported by the available evidence.
 35. Instead, the specific evidence indicates that the number of vehicles carried on the Ferry have decreased in the past two decades.
 36. There is attached, at **Appendix E**, the change in Class F (car volumes over the last 20 years). If we were to ignore the most recent years with COVID and the extraordinary outages and extrapolate this data, the extrapolated trend in traffic volumes would show a decrease over the next decade at **Appendix D** and 38 below.
 37. The traffic volumes for 2019 to 2023 are considered an unreliable guide to future traffic volumes for the reasons set out in paragraph 1.11 of the assumption.
 38. Between the late 20th century and now, traffic volumes decreased as follows:-



39. I do not consider a continuous decline in traffic is likely at the same rate throughout the forecast period although, given historic trends a further decline is anticipated. In order to reflect this expectation, the baseline figures for 2024 are reduced by the following percentages and the resultant traffic volumes held constant throughout the forecast period. The percentage deductions used are the change in traffic volumes between 2018 and 2024:

Class A	3.038%
Class B/C	-1.574%
Class F	-7.060%
Class G	18.692%
Coach	3.176%

40. At **Appendix F** are the traffic volumes, in tabular form, from the data provided by the Ferry Office.
41. The assumption, therefore that traffic volumes will not increase has been arrived at by an examination of the actual traffic volume data. These are the figures that have been used in my calculations.
42. I consider that the Ferry Company's evidence is also inherently more reliable than the Consortium's because the Company relies upon actual figures for the use of the ferry. The Consortium's figures are for the A351, a toll-free main road between Wareham and Swanage. No submission has been made by the Consortium for the traffic flow between Sandbanks and Studland using the ferry.
43. Furthermore, the Consortium refers to Strava data. Strava is an internet service for tracking physical exercise typically cycling and running. Its characteristic is used by those wishing to keep a record of personal fitness activity. Given the nature of the area around Studland, the ferry road and beaches, one would expect that the Strava data is significantly higher, reflecting the quieter roads and the increased use of exercise apps, rather than an increase in actual travel. It is not representative data of all road users, but instead only shows the journeys of a self-selecting and likely unrepresentative subset of users. It cannot sensibly be used as a basis for reaching broader conclusions as to general road use.
44. Further, and what does not appear to have been anticipated by the Consortium is that the number of journeys on the ferry cannot go above a certain level because of the physical constraints of the Bramble Bush Bay. It can only make the crossing a certain number of times a day and is licenced only to carry up to 48 cars. I understand, however, that whilst the ferry is licenced to carry 48 cars, in recent years as cars have become larger in practice it is restricted to 44 cars per crossing.
45. At peak times, in particular, the ferry is limited in the actual number of vehicles it can carry. Plainly passengers arriving during peak hours will also not be willing to wait very long periods for a free space to become available but, if confronted with a very long queue, would be more likely to take the road route. The consortium's proposal ignores all of this and instead assumes a ferry that is able to accommodate ever increasing numbers of vehicles.

46. I have therefore examined the consortium's proposal, in particular at sensitivity analysis in Section 3. In my view, the consortium's projections of income is flawed for the following reasons:-

- The Consortium forecast and increase in traffic volumes. The actual historic data for the last 25 years of traffic volumes show a decline in ferry crossings.
- A linear extrapolation of the Class F data suggests a further decline rather than an upward trend in ticket sales.
- The observed traffic flows contradict the data put forward by the Consortium which shows a gradual traffic increase over a similar period. This implies the consortium's assumptions on traffic volumes are flawed.

47. I therefore consider the consortium's suggestion that the car traffic volumes will increase by 7.23% over the forecast period to be unrealistic and that the company's projections which are static are more prudent particularly when the figures actually suggest a probable further decline.

48. Moreover ticket sales will not correlate directly with traffic volumes due to the availability of bulk purchases. At the end of the accounting period, there will be unused tickets in circulation to be used in the following period. Differences by individual users in the frequency of tickets purchased and the occurrence of outages not in the Company's control occur, sometimes for extended periods. In such instances, again the income will be reduced.

49. In addition, changes in tolls and discounts attributable to books and tickets or passes can lead to changes in purchasing patterns as was experienced following the "double discount" (where the company gave enhanced discounts post the 2019 breakdown).

50. Importantly, the Consortium income projections do not take into account refit years where the income reduces. Refits are every other year, in a 4 yearly cycle. In a major refit year, six weeks' income is lost and a minor year two weeks' income is lost. I note, that I made a similar criticism of the Consortium's objection at the last inquiry.

51. In a major refit year, the anticipated income figures detailed in Appendixes 5.1 and 5.2 are reduced by these amounts to give the figures shown in Appendixes 2.1 and 2.2. In a minor refit year, where the refit typically lasts two weeks rather than six weeks, the income figures in Appendix 2.1 and 2.2 are reduced to one third of the above amounts.

52. In a refit year traffic volumes will reduce. Historic data indicates traffic volume decreases by the following averages:-

Class A (foot passengers) -	4%
Class B (bikes and motorcycles) –	7.1%
Class F (car) –	6.6%
Class G (truck) -	12.3%
Coach and bus –	4.4%

The income figures detailed in appendices 2.1 and 2.2 are reduced by these percentages in a major refit year and by one third of these percentages in a minor refit year.

53. In addition to the re-fit years, historic data shows that unexpected outages occur during which time the Ferry Company will incur unexpected expense in remedying the problem, and there will be no income generated from traffic. The Consortium has taken no account of the historic pattern but assumes that the Ferry is able to transport ever increasing numbers of passengers without cessation. This is at odds with the data as to the actual operation of the Ferry.
54. Separately, the Consortium proposes a new fare class for motorcycles. Presently, motorcycles are included in the same class as pushbikes and e-bikes. Standard tolls for motorcycles in the Company's submission increases from £1 to £2.29 over this period. The Consortium is suggesting a starting toll of £2.70 increasing to £4.20.
55. This is a very significant rise for motorcycle users, an immediate increase of 170% together with increases through the forecast period. The increase forecasts an additional income of £1,085,062 compared to the rates put forward by the Ferry Company. In the Consortium's proposal, motorcycles are incurring a far greater increase than any other user.
56. In addition, I believe there is an error in the Consortium pricing model as a 50 ticket motorcycle pass is £19.44 compared to a standard fare of £2.70. The 50 ticket discount rate is a discount of 85.60% which is significantly in excess of the other discounts offered, such as the 100 book discount of 66%. This begs the question why would a user purchase a book of 100 tickets when it would cost more than 4 books of 50 tickets?
57. The real criticism however is that the Consortium has not provided any figures at all as to how it has apportioned the class of pushbikes, e-bikes and motorcycles into a separate Class as motorcycles. In 2024 the bike and motor cycle actual traffic volume was 114, 867. The consortium has assumed a traffic volume for motorcycles alone of 49,402.
58. The apportioned data is not kept by the Ferry Company. A motorcycle essentially takes up the same space as a pushbike on the ferry. I have however spoken to the Ferry Company and I am instructed, that comparatively speaking, motorcycles are relatively rare. The proportion is weighted, possibly by as much as 90% towards pushbikes.
59. I do not consider that there is any evidence at all that the motorcyclists as a separate class paying an 170% increased fare would produce the income that the Consortium anticipates.
60. During this forecast period, the Ferry Company must retain sufficient reserves for the FRR to reach a minimum of £13,878,709. The Corporation Tax rate is forecast to be 25% throughout the period thus the Company will need a minimum profit of £11,893,749. In the period covered by the Consortium, the Company expenses are forecast to be £51,695,105. Based on the forecast expenses, the minimum income must be £63,588,854. The Application therefore forecasts income over this period of £66,378,582 which will provide some cover and allows for unexpected outages and possible decreasing traffic volumes.
61. In additional this provides some (albeit limited) cover for additional unforeseen costs such as the recent increase in National Minimum Wage and employers National Insurance Contributions announced in the Autumn 2024 Budget.
62. The Consortium proposal is for an income of £69,714,865. However, as set out above:

- a. it is based on unrealistic and unevidenced increases in traffic volume. It fails to consider the historic data of static or declining traffic volumes. If the Class F traffic remains constant throughout the period, at the initial Consortium levels, the Class F income reduces by £2,332,317.
 - b. It fails to consider the losses during the refit years. Further, due to ferry refits the Consortium has overstated income by £1,227,667.
 - c. I can see no basis at all, for the assumption that extra income for motorcyclists is going to be generated of £1,085,062. There is no evidence at all to demonstrate that the large number of motorcyclists that would be necessary to generate such income will use the Ferry. It is also inconsistent with the position, as I understand it from the Ferry company, that the great majority of what is currently the unitary class of pushbike/motorcycle passengers is composed of pushbike passengers.
 - d. Motorcycles will be deterred from using the ferry with such a high toll even during times of congestion on the alternative A351 route since they can 'make progress' through any traffic.
63. In my view, the Consortium income forecast is therefore at least £4.645 million over optimistic.
64. Whilst on paper this would exceed the expected minimum costs by £1.48 million, this is only 2.8% of those anticipated costs and in my view does not provide a sufficient buffer for unexpected outages, changes in taxation, further decline in traffic volumes and in particular, costs, including taxation, increasing at a rate greater than RPI as has happened in recent years. Moreover, it would result in either no return on investment or a very poor return on investment.
65. For all these above reasons, I consider that the consortium's income projections are too optimistic and therefore unreliable. In my view the Consortium's proposal is flawed.

Section D

66. I have noted the other objections and make the following additional comments.
67. I have applied RPI to the increase in future costs and used RPI forecasts as published by the Office for Budgetary Responsibility Forecast as at May 2024. I acknowledge that there is a disagreement in the wider community about the advantages and disadvantages of using RPI instead of CPI. Generally, RPI is higher than CPI but not always.
68. The decision to use RPI as the higher figure than CPI was because of an analysis of cost (as set out in Appendix 5), showed that over the period 2018 to 2024, the Ferry Company's costs rose by an average of 6.8%. This is significantly more than CPI which rose by an average of 3.79% over the same period. RPI is generally marginally higher than CPI although the average over 2018 to 2024 was less than one half the actual cost increase suffered by the ferry.

69. I attach at **Appendix G** data showing that costs rose at a faster rate than CPI. I have assumed that this will continue over the forecast period and therefore restricted increases to RPI rather than extrapolate costs at the higher rate of increases above the historic data.
70. The refit costs in FYE 2023 were exceptional due to damage incurred to the vessel. Some of which was recovered by insurance. The base cost of a major refit is assumed at £1.2 million (being the indexed cost of the 2019 major refit). The extra costs of the exceptional outage were therefore circa £1 million (The total cost in 2023 being £2,273,063). The net sum received from the insurance was £1,024,409 which was all accounted for in the FYE 2023 accounts.
71. I have seen it said that if the figures were adjusted for the regular refit costs and allowing losses incurred through the towing exercise, the average operating margins for the audited periods 2018 to 2024 are 18%. This is not correct. My calculation of the average margin over period is 8% after removing exceptional refit costs of £1 million. The figures are at **Appendix H**.
72. I am satisfied that the revaluation reserve in the accounts is accurate and can be justified. The land, slip road buildings, motor ferry and motor engines were valued on an existing use basis and where appropriate, the value of plant and machinery to the business basis by Messrs Gerald Eve, an independent firm of chartered surveyors on 31st March 2015. I rely upon that expert valuation and consider it to remain current.
73. The reasoning for an initial starting point price increase was set out clearly in the assumptions.
74. The starting point for vehicle toll fares in the period commencing 1st April 2024 (FYE 2025) are the starting fares from the 2021 order indexed for actual RPI to January 2024. Tolls for the same period for pedestrian and cycles are also based on RPI to January 2024 from when they were previously increased under an Order in 2009. This increase is now being brought in more gradually.
75. The proposed initial increases to tolls are therefore by inflation and no more.
76. I have noted that one of the objectors has stated that the fares are being increased by 35%. At 5.2 states that a book of 10 car tickets will be £45.07 for 2024. This is an increase of 18% not 35%.
77. Inflation was a contributing factor in the last three years and was significantly higher than the increase allowed under the 2021 Order. Further, as set out above, costs also increased at a rate significantly ahead of RPI.
78. The £49,758 bad debt is the total provided for against an invoice to claim against a third party in connection with further damage sustained to the Ferry in the 2022 refit incident which it is alleged was damaged on delivery.
79. I have attributed legal and professional fees relating to the last toll increase as being £62,659. Other legal and professional fees relate to the general running of the business.
80. I have assumed, that the predicted annual return on the FRR is 2.2% which assumes an average bank base rate of 3.7% for the forecast period. The present forecasts are that the

Bank of England will reduce the Bank base rate to 3.5% by 2027 and that returns on savings can thereafter expected to be lower.

81. The management charges no longer appear in the accounts. Historically, management charges were costs incurred by other group companies relating to the Ferry Company. This included Directors' remuneration. The decision was made from 1st April 2022 to remove all inter-company management charges and for each group company to bear their own costs.
82. I have noted that it is said that the ferry was fully amortised in 2016. This is incorrect. The ferry was not amortised in 2016. At this time, (as per note 5 to the accounts for that year), the net asset value of the ferry was £1,357,142. The ferry has been depreciated for the remainder of its useful life as detailed in the projections.

**IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON
THE BOURNEMOUTH-SWANAGE MOTOR ROAD & FERRY LINK**

**Appendices to the Financial Statement and Response of Kevin Thomas,
Accountant and Tax Adviser, Rickard Luckin**

<u>Appendices</u>	<u>Page Number</u>
Appendix A Corrected calculations on effects of Current Ferry Company Application	2 - 13
Appendix B Spreadsheet setting out proposed new discounts with comparison of the percentage changes	14 - 15
Appendix C Calculations on effects of Ferry Company discounts	16 - 27
Appendix D Linear extrapolation of Class F traffic volumes	28 - 29
Appendix E Traffic Volumes from data provided by the Ferry Office	30 - 31
Appendix F Costs data	32 - 33
Appendix G Average margin calculations	34 - 35

Appendix A

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.1

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	Actual per audited accounts							Forecast										2035	2036	2037	2038	2039	2040
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	£	£	£	£	£	£
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£						
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%	1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%	2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
SALES																							
Class A (Foot passenger)						75,341	78,681	80,004	81,072	77,868	81,072	80,004	81,072	77,868	81,072	80,004	81,072	81,072	81,072	80,004	81,072	77,868	81,072
Class B/C (Bikes & motorcycles)						100,180	113,127	108,727	111,346	103,489	111,346	108,727	111,346	105,450	111,346	108,727	111,346	111,346	111,346	108,727	111,346	103,489	111,346
Class F (car)						2,156,855	3,004,846	2,783,974	2,900,102	2,809,648	3,114,926	3,151,672	3,356,603	3,414,011	3,625,133	3,545,633	3,625,133	3,625,133	3,625,133	3,545,633	3,625,133	3,386,634	3,625,133
Class G (Truck) ex. VAT						63,081	113,732	131,936	140,183	127,462	150,566	149,360	162,248	162,549	175,228	168,031	175,228	175,228	175,228	168,031	175,228	153,637	175,228
Coach & Bus						5,118	3,969	4,112	4,252	4,215	4,568	4,656	4,923	5,274	5,317	5,239	5,317	5,317	5,317	5,239	5,317	5,082	5,317
Toll Road						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355	3,108,753	3,236,954	3,122,682	3,462,477	3,494,419	3,716,191	3,765,152	3,998,095	3,907,634	3,998,095	3,998,096	3,998,095	3,907,634	3,998,095	3,726,710	3,998,095
DIRECT COSTS																							
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	1,024,177	1,046,709	1,073,923	1,106,141	1,138,219	1,171,228	1,205,193	1,240,144	1,276,108	1,313,115	1,351,195	1,390,380	1,430,701	1,472,192	1,514,885	1,558,817
Staff recruitment costs	-	-	-	7,650	4,304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557	212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-	425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	none	none	minor	none	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	9,732	8,757	8,950	9,183	9,458	10,315	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599	5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,472	103,426	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924	1,956,340	1,562,173	2,938,843	1,645,016	2,162,691	1,735,740	3,285,460	1,831,803	2,412,192	1,933,518	2,357,334	2,411,954	3,015,095	2,525,991	4,322,859	2,646,739
OVERHEADS																							
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	183,880	187,925	192,811	198,595	204,355	210,281	216,379	222,654	229,111	235,755	242,592	249,627	256,867	264,316	271,981	279,868
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721	143,074	146,222	150,024	154,524	159,006	163,617	168,362	173,244	178,268	183,438	188,758	194,232	199,864	205,660	211,625	217,762
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450	35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225	2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	814,986	832,916	854,572	880,209	905,735	932,001	959,029	986,841	1,015,460	1,044,908	1,075,210	1,106,391	1,138,477	1,171,492	1,205,466	1,240,424
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907	77,553	78,159	78,778	79,412	30,059	30,930	31,827	32,750	33,700	34,677	35,683	36,718	37,783	38,878	40,006	41,166
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695	414,980	920,024	(591,954)	1,016,664	456,051	1,079,380	(447,510)	1,212,202	513,682	1,054,347	601,235	516,468	(208,155)	339,490	(1,761,609)	152,098
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Current account interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492	120,815	107,034	111,905	102,925	123,372	137,579	159,652	154,252	178,936	194,803	(199,537)	(145,394)	(121,817)	(146,485)	(133,847)	(282,020)
Profit Before Tax (PBT)	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141	535,795	1,027,058	(480,049)	1,119,589	579,424	1,216,959	(287,858)	1,366,453	692,618	1,249,149	401,697	(11,234)	(703,643)	(171,365)	(2,249,809)	(473,486)
Corporation Tax																							

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.2

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (assuming this application is approved)

	2018 £	2019 £	Actual per audited accounts				2023 £	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
			2020 £	2021 £	2022 £																			
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%		1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%		2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	
SALES																								
Class A (Foot passenger)							75,341	78,681	139,677	143,159	139,832	148,010	149,253	154,481	150,706	160,142	161,225	166,613	170,657	173,893	174,795	180,363	177,120	187,643
Class B/C (Bikes & motorcycles)							100,180	113,127	188,894	195,655	184,930	202,288	201,847	211,131	199,314	218,868	218,037	227,711	233,238	237,659	236,386	246,502	234,244	256,450
Class F (car)							2,156,855	3,004,846	3,288,225	3,442,828	3,292,673	3,612,633	3,636,370	3,790,082	3,613,307	3,945,457	3,934,916	4,106,341	4,184,029	4,267,304	4,260,560	4,444,875	4,235,389	4,622,445
Class G (Truck) ex. VAT							63,081	113,732	155,834	165,490	147,723	171,749	168,352	179,100	160,133	186,304	182,296	193,903	197,702	201,633	197,246	209,887	187,703	218,274
Coach & Bus							5,118	3,969	4,857	5,021	4,887	5,212	5,251	5,436	5,299	5,655	5,685	5,884	5,999	6,118	6,150	6,369	6,210	6,623
Toll Road									51,333	52,153	52,973	53,875	54,941	56,007	57,155	58,303	59,451	60,681	61,829	63,059	64,371	65,683	66,995	68,307
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355		3,828,820	4,004,306	3,823,018	4,193,767	4,216,014	4,396,237	4,185,914	4,574,729	4,561,610	4,761,133	4,853,454	4,949,666	4,939,508	5,153,679	4,907,661	5,359,742
DIRECT COSTS																								
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454		1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173		1,024,177	1,046,709	1,073,923	1,106,141	1,138,219	1,171,228	1,205,193	1,240,144	1,276,108	1,313,115	1,351,195	1,390,380	1,430,701	1,472,192	1,514,885	1,558,817
Staff recruitment costs	-	-	-	7,650	4,304	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557		212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-		425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none		minor	none	major	none	minor	none	major	none	minor	none	none	none	minor	none	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699		120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271		41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552		8,757	8,950	9,183	9,458	9,732	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599		5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459		12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,203	101,472	103,426	103,160		103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924		1,956,340	1,562,173	2,938,843	1,645,016	2,162,691	1,735,740	3,285,460	1,831,803	2,412,192	1,933,518	2,357,334	2,411,954	3,015,095	2,525,991	4,322,859	2,646,739
OVERHEADS																								
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570		183,880	187,925	192,811	198,595	204,355	210,281	216,379	222,654	229,111	235,755	242,592	249,627	256,867	264,316	271,981	279,868
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269		34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721		143,074	146,222	150,024	154,524	159,006	163,617	168,362	173,244	178,268	183,438	188,758	194,232	199,864	205,660	211,625	217,762
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714		127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238		108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714		6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38		39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248		5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635		3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819		10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046		39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450		35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795		44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225		2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403		69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643		814,986	832,916	854,572	880,209	905,735	932,001	959,029	986,841	1,015,460	1,044,908	1,075,210	1,106,391	1,138,477	1,171,492	1,205,466	1,240,424
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907		77,553	78,159	78,778	79,412	30,059	30,930	31,827	32,750	33,700	34,677	35,683	36,718	37,783	38,878	40,006	41,166
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695		1,135,047	1,687,376	108,382	1,747,954	1,177,646	1,759,426	(26,748)	1,788,836	1,167,658	1,817,385	1,456,593	1,468,039	823,719	1,495,074	(580,658)	1,513,745
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)		-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Current account Interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492		120,815	122,749	140,807	143,887	177,046	204,171	230,738	232,685	250,621	265,910	9,755	24,728	36,641	47,056	65,894	58,931
Profit Before Tax	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141		1,255,862	1,810,126	249,188	1,891,841	1,354,											

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 3.1

Forecast Year end Balance Sheet for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	6,218	6,474	6,245	6,925	6,989	7,432	7,530	7,996	7,815	7,996	7,996	7,996	7,815	7,996	7,453	7,996
Stocks & Debtors	610,525	602,460	602,716	602,487	603,167	603,231	603,674	603,772	604,238	604,057	604,238	604,238	604,238	604,057	604,238	603,695	604,238
Cash at Bank	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)	(3,823,248)
	4,637,683	4,883,816	5,689,314	5,280,904	6,210,999	6,856,830	7,860,593	7,615,205	8,737,692	9,458,721	(1,987,157)	(1,283,997)	(977,802)	(1,298,345)	(1,134,035)	(3,058,903)	(3,219,010)
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	87,966	89,749	91,583	93,472	95,414	97,413
Corporation Tax	80,589	264,338	221,147	94,166	105,733	238,167	250,338	141,928	160,615	283,174	136,933	-	(37,461)	-	-	-	-
	570,505	337,422	295,256	169,514	182,547	316,441	330,114	223,250	243,527	367,723	223,166	87,966	52,288	91,583	93,472	95,414	97,413
Net Current Assets	4,067,178	4,546,394	5,394,058	5,111,390	6,028,452	6,540,390	7,530,479	7,391,955	8,494,165	9,090,999	(2,210,322)	(1,371,963)	(1,030,091)	(1,389,929)	(1,227,507)	(3,154,317)	(3,316,423)
Total Assets Less Current Liabilities	17,130,596	17,506,652	18,251,156	17,865,328	18,679,230	19,088,008	19,974,937	19,733,253	20,732,303	21,225,977	27,365,227	27,729,690	27,597,666	26,763,932	26,452,458	24,051,751	23,415,749
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	4,958,397	5,789,288	5,489,847	6,390,136	6,885,301	7,858,617	7,703,320	8,788,757	9,368,818	10,629,433	11,192,438	11,267,592	10,650,336	10,565,357	8,401,935	8,014,837
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445

The Bournemouth-Swanage Motor Road & Ferry Co. Inc. Appendix 3.2 Forecast Year End Balance Sheets for the 16 Years to 31 March 2040 (Assuming an Increase in Toll Charges)																	
	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	7,658	8,009	7,646	8,388	8,432	8,792	8,372	9,149	9,123	9,522	9,707	9,899	9,879	10,307	9,815	10,719
Stocks & Debtors	610,525	603,900	604,251	603,888	604,630	604,674	605,034	604,614	605,391	605,365	605,764	605,949	606,141	606,121	606,549	606,057	606,961
Cash at Bank	4,027,158	4,909,975	6,400,306	6,540,335	8,047,525	9,280,517	10,488,083	10,576,574	11,391,863	12,086,817	443,400	1,123,978	1,665,484	2,138,919	2,995,204	2,678,672	3,982,764
	4,637,683	5,513,875	7,004,557	7,144,223	8,652,155	9,885,191	11,093,117	11,181,188	11,997,255	12,692,183	1,049,164	1,729,927	2,271,625	2,745,040	3,601,753	3,284,729	4,589,726
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	91,583	93,472	95,414	97,413	26,479	26,479
Corporation Tax	80,589	354,346	409,038	283,204	293,419	431,607	440,576	296,739	303,979	455,765	331,909	-	-	-	-	-	-
	570,505	427,430	483,148	358,552	370,233	509,881	520,352	378,060	386,891	540,314	418,142	91,583	93,472	95,414	97,413	26,479	26,479
Net Current Assets	4,067,178	5,086,445	6,521,409	6,785,671	8,281,922	9,375,311	10,572,765	10,803,127	11,610,364	12,151,869	631,022	1,638,343	2,178,154	2,649,626	3,504,340	3,258,250	4,563,247
Total Assets Less Current Liabilities	17,130,596	18,046,703	19,378,507	19,539,609	20,932,700	21,922,929	23,017,223	23,144,425	23,848,502	24,286,847	30,206,572	30,739,996	30,805,911	30,803,486	31,184,304	30,464,318	31,295,418
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	17,450,861	18,782,665	18,943,767	20,336,858	21,327,087	22,421,381	22,548,583	23,252,660	23,691,005	24,645,708	25,291,287	25,477,992	25,605,659	26,126,586	25,557,497	26,551,114
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	5,498,448	6,916,639	7,164,128	8,643,606	9,720,222	10,900,903	11,114,492	11,904,956	12,429,688	13,470,778	14,202,744	14,475,836	14,689,890	15,297,204	14,814,502	15,894,506
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	17,450,861	18,782,665	18,943,767	20,336,858	21,327,087	22,421,381	22,548,583	23,252,660	23,691,005	24,645,708	25,291,287	25,477,992	25,605,659	26,126,586	25,557,497	26,551,114

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 4.1

Forecast dividends and returns on investment (in line with increases approved under The 2021 Order)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445
Turnover	3,108,753	3,236,954	3,122,682	3,462,477	3,494,419	3,716,191	3,765,152	3,998,095	3,907,634	3,998,095	3,998,096	3,998,095	3,907,634	3,998,095	3,726,710	3,998,095
Profit after tax	376,056	744,504	(385,827)	813,902	408,778	886,929	(241,684)	999,050	493,673	1,174,228	476,618	(11,234)	(703,643)	(171,365)	(2,249,809)	(473,486)
Transfer to Ferry Replacement Reserve	(376,056)	(744,504)	385,827	(813,902)	(408,778)	(886,929)	241,684	(999,050)	(493,673)	(1,174,228)	(476,618)	11,234	703,643	171,365	2,249,809	473,486
Profit available for distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 4.2

Forecast dividends and returns on investment (assuming this application is approved).

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	17,450,861	18,782,665	18,943,767	20,336,858	21,327,087	22,421,381	22,548,583	23,252,660	23,691,005	24,645,708	25,291,287	25,477,992	25,605,659	26,126,586	25,557,497	26,551,114
Turnover	3,828,820	4,004,306	3,823,018	4,193,767	4,216,014	4,396,237	4,185,914	4,574,729	4,561,610	4,761,133	4,853,454	4,949,666	4,939,508	5,153,679	4,907,661	5,359,742
Profit after tax	916,107	1,331,805	161,101	1,393,091	990,229	1,446,909	127,202	1,490,350	1,037,919	1,799,837	941,922	953,372	472,092	977,817	-569,088	993,617
Transfer to Ferry Replacement Reserve	(916,107)	(1,331,805)	(161,101)	(1,393,091)	(990,229)	(1,094,295)	(127,202)	(704,076)	(438,345)	(954,703)	(645,579)	(186,705)	(127,667)	(520,927)	569,088	(993,617)
Profit available for distribution	-	-	-	-	-	352,614	-	786,274	599,574	845,134	296,343	766,667	344,425	456,890	-	-
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	3.4%	2.5%	3.4%	1.2%	3.0%	1.3%	1.7%	0.0%	0.0%
Forecast dividends	0	0	0	0	0	352,614	0	786,274	599,574	845,134	296,343	766,667	344,425	456,890	0	0
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	3.4%	2.5%	3.4%	1.2%	3.0%	1.3%	1.7%	0.0%	0.0%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	17.2%	13.1%	17.8%	6.1%	15.5%	7.0%	8.9%	0.0%	0.0%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 5
Summary of costs for six years for 2019 to 2024 (excluding depreciation)

	2018	2019	2020	2021	2022	2023	2024	Average annual increase / (decrease) (%)	Total increase / (decrease) from 2018 to 2024 (%)
	£	£	£	£	£	£	£		
DIRECT COSTS									
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	2.3%	14.3%
Direct Wages	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	4.1%	40.7%
Staff recruitment costs	-	-	-	7,650	4,304	-	-		
Ferry repairs & maintenance - day to day	112,230	155,000	544,077	165,000	212,761	175,000	236,557	7.7%	110.8%
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	7.7%	57.2%
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	16.8%	196.2%
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552	18.9%	12.2%
Road repairs & maintenance	4,839	7,092	2,438	5,515	20,140	7,280	5,599	7.0%	15.7%
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	18.4%	6.1%
Total Direct Costs	958,407	1,022,139	1,394,901	1,138,221	1,295,510	1,350,299	1,486,764	5.9%	55.1%
OVERHEADS									
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	4.9%	56.4%
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	3.3%	29.4%
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721		
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	(7.6%)	(13.9%)
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	(100.0%)	(100.0%)
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	31.1%	797.6%
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	(1.6%)	10.4%
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	(31.2%)	(99.3%)
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	7.9%	(8.9%)
Advertising	45	45	1,713	45	330	-	-	(100.0%)	(100.0%)
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	(2.8%)	(14.8%)
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	14.7%	66.1%
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	6.9%	531.5%
Audit fees	11,000	11,325	11,665	11,985	12,880	21,135	34,450	11.5%	213.2%
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	11.2%	202.9%
Bad & Doubtful debts	-	-	-	-	-	-	49,758		
Accomodation and subsistence	-	-	-	-	799	4,694	2,225		
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	7.1%	135.5%
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	1.9%	65.0%
Grand Total	1,513,253	1,572,249	1,992,297	1,724,679	1,964,238	1,971,907	2,402,407	4.5%	58.8%

Income workings for 17 years to 31st March 2040 (assuming this application is approved)

Inflation rate	CPI

Proposed Tolls		Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £		
Effective from:		1/4/24		1/4/25		1/4/26		1/4/27		1/4/28		1/4/29		1/4/30		1/4/31		1/4/32		1/4/33		1/4/34		1/4/35		1/4/36		1/4/37		1/4/38		1/4/39	
Class 1	Pedestrian	1.75		1.77		1.80		1.83		1.87		1.91		1.94		1.98		2.02		2.06		2.11		2.15		2.19		2.23		2.28		2.32	
Class 2	Pedal or Motor Cycle	1.75		1.77		1.80		1.83		1.87		1.91		1.94		1.98		2.02		2.06		2.11		2.15		2.19		2.23		2.28		2.32	
Class 3	Passenger vehicle < 16 persons (Cars)	6.26		6.36		6.46		6.57		6.70		6.83		6.97		7.11		7.25		7.40		7.54		7.69		7.85		8.01		8.17		8.33	
Class 4	Passenger vehicle > 16 persons (Coaches)	12.52		12.72		12.92		13.14		13.40		13.67		13.94		14.22		14.51		14.80		15.09		15.39		15.70		16.02		16.34		16.66	
Class 5	Goods vehicle < 3,500kgs (Cars)	6.26		6.36		6.46		6.57		6.70		6.83		6.97		7.11		7.25		7.40		7.54		7.69		7.85		8.01		8.17		8.33	
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	12.52		12.72		13.14		13.40		13.67		13.94		14.22		14.51		14.80		15.09		15.39		15.70		16.02		16.34		16.66		16.97	
Class 7	Book of 50 tickets for Pedestrians	74.38	15.00%	75.23	15.00%	76.50	15.00%	77.78	15.00%	79.48	15.00%	81.18	15.00%	82.45	15.00%	84.15	15.00%	85.85	15.00%	87.55	15.00%	89.68	15.00%	91.38	15.00%	93.08	15.00%	94.78	15.00%	96.90	15.00%	98.60	15.00%
Class 7b	Book of 100 tickets for Pedestrians	140.00	20.00%	141.60	20.00%	144.00	20.00%	146.40	20.00%	149.60	20.00%	152.80	20.00%	155.20	20.00%	158.40	20.00%	161.60	20.00%	164.80	20.00%	168.80	20.00%	172.00	20.00%	175.20	20.00%	178.40	20.00%	182.40	20.00%	185.60	20.00%
Class 9	Book of 50 tickets for cycles	74.38	15.00%	75.23	15.00%	76.50	15.00%	77.78	15.00%	79.48	15.00%	81.18	15.00%	82.45	15.00%	84.15	15.00%	85.85	15.00%	87.55	15.00%	89.68	15.00%	91.38	15.00%	93.08	15.00%	94.78	15.00%	96.90	15.00%	98.60	15.00%
Class 9b	Book of 100 tickets for cycles	140.00	20.00%	141.60	20.00%	144.00	20.00%	146.40	20.00%	149.60	20.00%	152.80	20.00%	155.20	20.00%	158.40	20.00%	161.60	20.00%	164.80	20.00%	168.80	20.00%	172.00	20.00%	175.20	20.00%	178.40	20.00%	182.40	20.00%	185.60	20.00%
Class 10	Book of 10 tickets for Motor Cars	45.07	28.00%	47.70	25.00%	50.39	22.00%	53.22	19.00%	56.95	15.00%	58.06	15.00%	59.25	15.00%	60.44	15.00%	61.63	15.00%	62.90	15.00%	64.09	15.00%	65.37	15.00%	66.73	15.00%	68.09	15.00%	69.45	15.00%	70.81	15.00%
Class 11	Book of 50 tickets for Motor Cars	212.84	32.00%	225.78	29.00%	239.02	26.00%	252.95	23.00%	268.00	20.00%	273.20	20.00%	278.80	20.00%	284.40	20.00%	290.00	20.00%	296.00	20.00%	301.60	20.00%	307.60	20.00%	314.00	20.00%	320.40	20.00%	326.80	20.00%	333.20	20.00%
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	90.14	28.00%	95.40	25.00%	100.78	22.00%	106.43	19.00%	113.90	15.00%	116.20	15.00%	118.49	15.00%	120.87	15.00%	123.34	15.00%	125.80	15.00%	128.27	15.00%	130.82	15.00%	133.45	15.00%	136.17	15.00%	138.89	15.00%	141.61	15.00%
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	425.68	32.00%	451.56	29.00%	478.04	26.00%	505.89	23.00%	536.00	20.00%	546.80	20.00%	557.60	20.00%	568.80	20.00%	580.40	20.00%	592.00	20.00%	603.60	20.00%	615.60	20.00%	628.00	20.00%	640.80	20.00%	653.60	20.00%	666.40	20.00%
Class 14	Book of 10 tickets for Buses & Coaches	90.14	28.00%	95.40	25.00%	100.78	22.00%	106.43	19.00%	113.90	15.00%	116.20	15.00%	118.49	15.00%	120.87	15.00%	123.34	15.00%	125.80	15.00%	128.27	15.00%	130.82	15.00%	133.45	15.00%	136.17	15.00%	138.89	15.00%	141.61	15.00%
Class 15	Book of 50 tickets for Buses & Coaches	425.68	32.00%	451.56	29.00%	478.04	26.00%	505.89	23.00%	536.00	20.00%	546.80	20.00%	557.60	20.00%	568.80	20.00%	580.40	20.00%	592.00	20.00%	603.60	20.00%	615.60	20.00%	628.00	20.00%	640.80	20.00%	653.60	20.00%	666.40	20.00%
Toll Road		6.26		6.36		6.46		6.57		6.70		6.83		6.97		7.11		7.25		7.40		7.54		7.69		7.85		8.01		8.17		8.33	

Income by Class		Annualised Income (NON refit year)		Category designation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
		2025	Y/E 31/3/24		£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Traffic volume																				
Class 1	Pedestrian	75,471	75,471	A	132,075	133,584	135,848	138,112	141,131	144,150	146,414	149,433	152,452	155,471	159,245	162,264	165,283	168,302	172,076	175,095
Class 2	Pedal or Motor Cycle	98,803	98,803	B	172,906	174,882	177,846	180,810	184,762	188,714	191,678	195,630	199,582	203,534	208,474	212,426	216,378	220,330	225,270	229,222
Class 3	Passenger vehicle < 16 persons (Cars)	467,928	2,433,225	F	2,929,229	2,976,022	3,022,815	3,074,287	3,135,118	3,195,949	3,261,459	3,326,969	3,392,479	3,462,668	3,528,178	3,598,367	3,673,235	3,748,103	3,822,971	3,897,839
Class 4	Passenger vehicle > 16 persons (Coaches)	360	3,744	C	4,507	4,579	4,651	4,730	4,824	4,921	5,018	5,119	5,223	5,327	5,431	5,539	5,651	5,766	5,881	5,996
Class 5	Goods vehicle < 3,500kgs (Cars)	2,458	12,784	F	15,390	15,636	15,882	16,152	16,472	16,792	17,136	17,480	17,824	18,193	18,537	18,906	19,299	19,692	20,085	20,478
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10,355	107,696	G	129,649	131,720	133,791	136,069	138,761	141,557	144,353	147,252	150,255	153,258	156,261	159,368	162,578	165,892	169,206	172,520
Class 7	Book of 50 tickets for Pedestrians	1,111	1,000	A	1,653	1,672	1,700	1,728	1,766	1,804	1,832	1,870	1,908	1,946	1,993	2,031	2,069	2,107	2,154	2,192
Class 7b	Book of 100 tickets for Pedestrians	2,600	2,210	A	3,640	3,682	3,744	3,806	3,889	3,972	4,034	4,117	4,200	4,283	4,387	4,470	4,553	4,636	4,740	4,823
Class 9	Book of 50 tickets for cycles	7,778	7,000	B	11,570	11,702	11,900	12,099	12,363	12,627	12,825	13,089	13,353	13,617	13,948	14,212	14,476	14,740	15,070	15,334
Class 9b	Book of 100 tickets for cycles	8,616	7,324	B	12,063	12,201	12,408	12,615	12,891	13,167	13,374	13,650	13,926	14,202	14,547	14,823	15,099	15,375	15,720	15,996
Class 10	Book of 10 tickets for Motor Cars	83,747	313,550	F	377,449	399,475	422,003	445,704	476,942	486,238	496,204	506,170	516,136	526,772	536,738	547,458	558,848	570,238	581,628	593,018
Class 11	Book of 50/100 tickets for Motor Cars	69,369	245,287	F	295,288	313,241	331,610	350,936	371,816	379,030	386,799	394,568	402,337	410,661	418,430	426,754	435,633	444,512	453,391	462,270
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	58	437	G	526	557	588	621	665	678	691	705	719	733	747	762	777	793	809	825
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	792	5,599	G	6,741	7,151	7,570	8,011	8,488	8,659	8,830	9,007	9,191	9,375	9,559	9,749	9,945	10,148	10,351	10,554
Class 14	Book of 10 tickets for Buses & Coaches	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 15	Book of 50 tickets for Buses & Coaches	32	225	C	271	287	304	322	341	348	355	362	369	376	383	391	399	407	415	423
Toll Road		-	-		51,333	52,153	52,973	53,875	54,941	56,007	57,155	58,303	59,451	60,681	61,829	63,059	64,371	65,683	66,995	68,307
					4,144,290	4,238,544	4,335,633	4,439,877	4,565,170	4,654,613	4,748,157	4,843,724	4,939,405	5,041,097	5,138,687	5,240,579	5,348,594	5,456,724	5,566,762	5,674,892

Income By Category		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Class A (Foot passenger)	79,183	137,368	138,938	141,292	143,646	146,786	149,926	152,280	155,420	158,560	161,700	165,625	168,765	171,905	175,045	178,970	182,110
Class B/C (Bikes & motorcycles)	115,197	196,539	198,785	202,154	205,524	210,016	214,508	217,877	222,369	226,861	231,353	236,969	241,461	245,953	250,445	256,060	260,552
Class F (Car)	623,502	3,617,356	3,704,374	3,792,310	3,887,079	4,000,348	4,078,000	4,161,598	4,245,187	4,328,776	4,418,294	4,501,883	4,591,485	4,687,015	4,782,545	4,878,075	4,973,605
Class G (Truck)	11,205	136,916	139,428	141,949	144,701	147,914	150,894	153,874	156,964	160,165	163,366	166,567	169,879	173,300	176,833	180,366	183,899
Coach & Bus	392	4,778	4,866	4,955	5,052	5,165	5,269	5,373	5,481	5,592	5,703	5,814	5,930	6,050	6,173	6,296	6,419
Toll Road	-	51,333	52,153	52,973	53,875	54,941	56,007	57,155	58,303	59,451	60,681	61,829	63,059	64,371	65,683	66,995	68,307
		4,144,290	4,238,544	4,335,633	4,439,877	4,565,170	4,654,613	4,748,157	4,843,724	4,939,405	5,041,097	5,138,687	5,240,579	5,348,594	5,456,724	5,566,762	5,674,892

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 6.1

Cash flow analysis (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit/(Loss) [Profit Before Interest & Tax]	835,695	414,980	920,024	(591,954)	1,016,664	456,051	1,079,380	(447,510)	1,212,202	513,682	1,054,347	601,235	516,468	(208,155)	339,490	(1,761,609)	152,098
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	8,065	(256)	229	(680)	(64)	(444)	(98)	(466)	181	(181)	(0)	0	181	(181)	543	(543)
Increase (Decrease) in creditors due within one year	(652,957)	(233,083)	(42,166)	(125,742)	13,033	133,894	13,674	(106,864)	20,277	124,196	(144,557)	(135,200)	(35,677)	39,295	1,888	1,943	1,999
Net Cash Inflow From Operating Activities	1,305,975	293,123	980,762	(614,308)	1,132,177	693,041	1,195,770	(451,312)	1,335,173	741,219	1,012,769	939,931	954,686	305,218	815,093	(1,285,227)	627,451
Interest received	73,492	120,815	107,034	111,905	102,925	123,372	137,579	159,652	154,252	178,936	194,803	(199,537)	(145,394)	(121,817)	(146,485)	(133,847)	(282,020)
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Dividend paid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporation tax paid	(175,766)	(159,739)	(282,554)	94,222	(305,687)	(170,646)	(330,030)	46,174	(367,403)	(198,945)	(74,921)	74,921	-	-	-	-	-
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	254,198	805,242	(408,181)	929,415	645,767	1,003,319	(245,486)	1,122,021	721,210	(11,446,059)	703,160	306,195	(320,362)	164,129	(1,924,325)	(160,650)
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)
Closing Cash at Bank & In Hand	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)	(3,823,248)

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 6.2
Cash flow analysis (assuming this application is approved)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit [Profit Before Interest & Tax]	835,695	1,135,047	1,687,376	108,382	1,747,954	1,177,646	1,759,426	(26,748)	1,788,836	1,167,658	1,817,385	1,456,593	1,468,039	823,719	1,495,074	(580,658)	1,513,745
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	6,625	(351)	363	(741)	(44)	(360)	421	(778)	26	(399)	(185)	(192)	20	(428)	492	(904)
Increase (Decrease) in creditors due within one year	(652,957)	(143,075)	55,718	(124,596)	11,681	139,648	10,472	(142,292)	8,831	153,423	(122,172)	(326,558)	1,888	1,943	1,999	(70,934)	-
Net Cash Inflow From Operating Activities	1,305,975	1,101,757	1,845,903	87,308	1,862,053	1,420,409	1,872,697	(65,459)	1,900,049	1,424,267	1,797,974	1,603,746	1,943,630	1,299,579	1,970,541	(177,204)	1,986,737
Interest received	73,492	120,815	122,749	140,807	143,887	177,046	204,171	230,738	232,685	250,621	265,910	9,755	24,728	36,641	47,056	65,894	58,931
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Dividend paid	-	-	-	-	-	-	(352,614)	-	(786,274)	(599,574)	(845,134)	(296,343)	(766,667)	(344,425)	(456,890)	-	-
Corporation tax paid	(175,766)	(339,755)	(478,321)	(88,087)	(498,750)	(364,463)	(516,689)	(76,788)	(531,170)	(380,360)	(283,458)	(142,118)	(165,723)	(23,898)	(209,960)	289,239	(247,114)
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	882,817	1,490,331	140,028	1,507,191	1,232,992	1,207,566	88,491	815,290	694,954	(11,643,418)	680,578	541,506	473,435	856,285	(316,532)	1,304,092
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,909,975	6,400,306	6,540,335	8,047,525	9,280,517	10,488,083	10,576,574	11,391,863	12,086,817	443,400	1,123,978	1,665,484	2,138,919	2,995,204	2,678,672
Closing Cash at Bank & In Hand	4,027,158	4,909,975	6,400,306	6,540,335	8,047,525	9,280,517	10,488,083	10,576,574	11,391,863	12,086,817	443,400	1,123,978	1,665,484	2,138,919	2,995,204	2,678,672	3,982,764

Appendix B

APPLICATION AS SUBMITTED

Proposed Tolls		Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed 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PROPOSED REVISIONS

Proposed Tolls		Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed 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DIFFERENCE BETWEEN THE ABOVE 2 TABLES

Proposed Tolls		Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Reduction	Red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Appendix C

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.1

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	Actual per audited accounts							Forecast															
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%	1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%	2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
SALES																							
Class A (Foot passenger)						75,341	78,681	80,004	81,072	77,868	81,072	80,004	81,072	77,868	81,072	80,004	81,072	81,072	81,072	80,004	81,072	77,868	81,072
Class B/C (Bikes & motorcycles)						100,180	113,127	108,727	111,346	103,489	111,346	108,727	111,346	105,450	111,346	108,727	111,346	111,346	111,346	108,727	111,346	103,489	111,346
Class F (car)						2,156,855	3,004,846	2,783,974	2,900,102	2,809,648	3,114,926	3,151,672	3,356,603	3,414,011	3,625,133	3,545,633	3,625,133	3,625,133	3,625,133	3,545,633	3,625,133	3,386,634	3,625,133
Class G (Truck) ex. VAT						63,081	113,732	131,936	140,183	127,462	150,566	149,360	162,248	162,549	175,228	168,031	175,228	175,228	175,228	168,031	175,228	153,637	175,228
Coach & Bus						5,118	3,969	4,112	4,252	4,215	4,568	4,656	4,923	5,274	5,317	5,239	5,317	5,317	5,317	5,239	5,317	5,082	5,317
Toll Road						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355	3,108,753	3,236,954	3,122,682	3,462,477	3,494,419	3,716,191	3,765,152	3,998,095	3,907,634	3,998,095	3,998,096	3,998,095	3,907,634	3,998,095	3,726,710	3,998,095
DIRECT COSTS																							
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	1,024,177	1,046,709	1,073,923	1,106,141	1,138,219	1,171,228	1,205,193	1,240,144	1,276,108	1,313,115	1,351,195	1,390,380	1,430,701	1,472,192	1,514,885	1,558,817
Staff recruitment costs	-	-	-	7,650	4,304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557	212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-	425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	none	none	minor	none	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	9,732	8,757	8,950	9,183	9,458	10,315	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599	5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,472	103,426	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924	1,956,340	1,562,173	2,938,843	1,645,016	2,162,691	1,735,740	3,285,460	1,831,803	2,412,192	1,933,518	2,357,334	2,411,954	3,015,095	2,525,991	4,322,859	2,646,739
OVERHEADS																							
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	183,880	187,925	192,811	198,595	204,355	210,281	216,379	222,654	229,111	235,755	242,592	249,627	256,867	264,316	271,981	279,868
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721	143,074	146,222	150,024	154,524	159,006	163,617	168,362	173,244	178,268	183,438	188,758	194,232	199,864	205,660	211,625	217,762
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450	35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225	2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	814,986	832,916	854,572	880,209	905,735	932,001	959,029	986,841	1,015,460	1,044,908	1,075,210	1,106,391	1,138,477	1,171,492	1,205,466	1,240,424
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907	77,553	78,159	78,778	79,412	30,059	30,930	31,827	32,750	33,700	34,677	35,683	36,718	37,783	38,878	40,006	41,166
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695	414,980	920,024	(591,954)	1,016,664	456,051	1,079,380	(447,510)	1,212,202	513,682	1,054,347	601,235	516,468	(208,155)	339,490	(1,761,609)	152,098
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Current account interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492	120,815	107,034	111,905	102,925	123,372	137,579	159,652	154,252	178,936	194,803	(199,537)	(145,394)	(121,817)	(146,485)	(133,847)	(282,020)
Profit Before Tax (PBT)	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141	535,795	1,027,058	(480,049)	1,119,589	579,424	1,216,959	(287,858)	1,366,453	692,618	1,249,149	401,697	(11,234)	(703,643)	(171,365)	(2,249,809)	(473,486)
Corporation Tax																							

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.2

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (assuming this application is approved)

	2018	2019	Actual per audited accounts					2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	£	£	2020	2021	2022	2023	2024	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%	1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%	2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	
SALES																							
Class A (Foot passenger)						75,341	78,681	80,004	139,742	136,105	144,528	146,282	151,458	147,793	157,097	158,208	163,543	166,766	169,989	171,726	177,241	173,333	184,493
Class B/C (Bikes & motorcycles)						100,180	113,127	108,727	185,762	176,075	194,449	196,149	205,240	193,800	212,881	212,137	221,613	225,979	230,345	230,256	240,169	227,279	249,993
Class F (car)						2,156,855	3,004,846	2,783,974	3,292,286	3,149,943	3,461,099	3,498,243	3,647,254	3,478,328	3,799,238	3,790,207	3,951,222	4,032,634	4,108,587	4,103,451	4,276,870	4,076,575	4,450,533
Class G (Truck) ex. VAT						63,081	113,732	131,936	161,547	144,233	167,722	164,682	175,121	156,626	182,282	178,290	189,572	193,478	197,254	193,023	205,196	183,566	213,529
Coach & Bus						5,118	3,969	4,112	4,898	4,769	5,088	5,135	5,315	5,182	5,531	5,559	5,752	5,871	5,985	6,018	6,227	6,073	6,478
Toll Road						-	-	-	51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355	3,108,753	3,835,568	3,663,278	4,025,859	4,064,530	4,239,493	4,037,982	4,414,430	4,402,950	4,591,399	4,685,655	4,774,235	4,767,861	4,970,320	4,732,755	5,172,267
DIRECT COSTS																							
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	1,024,177	1,046,709	1,073,923	1,106,141	1,138,219	1,171,228	1,205,193	1,240,144	1,276,108	1,313,115	1,351,195	1,390,380	1,430,701	1,472,192	1,514,885	1,558,817
Staff recruitment costs	-	-	-	7,650	4,304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557	212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-	425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	none	none	minor	none	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552	8,757	8,950	9,183	9,458	9,732	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599	5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,203	101,472	103,426	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924	1,956,340	1,562,173	2,938,843	1,645,016	2,162,691	1,735,740	3,285,460	1,831,803	2,412,192	1,933,518	2,357,334	2,411,954	3,015,095	2,525,991	4,322,859	2,646,739
OVERHEADS																							
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	183,880	187,925	192,811	198,595	204,355	210,281	216,379	222,654	229,111	235,755	242,592	249,627	256,867	264,316	271,981	279,868
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721	143,074	146,222	150,024	154,524	159,006	163,617	168,362	173,244	178,268	183,438	188,758	194,232	199,864	205,660	211,625	217,762
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450	35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225	2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	814,986	832,916	854,572	880,209	905,735	932,001	959,029	986,841	1,015,460	1,044,908	1,075,210	1,106,391	1,138,477	1,171,492	1,205,466	1,240,424
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907	77,553	78,159	78,778	79,412	30,059	30,930	31,827	32,750	33,700	34,677	35,683	36,718	37,783	38,878	40,006	41,166
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695	414,980	1,518,638	(51,358)	1,580,046	1,026,162	1,602,682	(174,680)	1,628,537	1,008,998	1,647,651	1,288,794	1,292,608	652,072	1,311,715	(755,564)	1,326,270
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Current account Interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492	120,815	107,034	123,402	125,053	155,123	179,398	210,741	209,932	242,142	262,855	11,202	22,199	39,622	46,180	69,353	59,560
Profit Before Tax	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141	535,795	1,625,672	72,044	1,705,099	1,181,286	1,782,080	36,061	1,838,468	1,251,141	1,910,506	917,688	941,136	327,324	1,003,541	(1,029,775)	1,053,885
Corporation Tax	(308,680)	(17,177)	(199,414)	(366)	(208,920)	283,062	(368,936)	(159															

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 3.1

Forecast Year end Balance Sheet for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	6,218	6,474	6,245	6,925	6,989	7,432	7,530	7,996	7,815	7,996	7,996	7,996	7,815	7,996	7,453	7,996
Stocks & Debtors	610,525	602,460	602,716	602,487	603,167	603,231	603,674	603,772	604,238	604,057	604,238	604,238	604,238	604,057	604,238	603,695	604,238
Cash at Bank	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)	(3,823,248)
	4,637,683	4,883,816	5,689,314	5,280,904	6,210,999	6,856,830	7,860,593	7,615,205	8,737,692	9,458,721	(1,987,157)	(1,283,997)	(977,802)	(1,298,345)	(1,134,035)	(3,058,903)	(3,219,010)
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	87,966	89,749	91,583	93,472	95,414	97,413
Corporation Tax	80,589	264,338	221,147	94,166	105,733	238,167	250,338	141,928	160,615	283,174	136,933	-	(37,461)	-	-	-	-
	570,505	337,422	295,256	169,514	182,547	316,441	330,114	223,250	243,527	367,723	223,166	87,966	52,288	91,583	93,472	95,414	97,413
Net Current Assets	4,067,178	4,546,394	5,394,058	5,111,390	6,028,452	6,540,390	7,530,479	7,391,955	8,494,165	9,090,999	(2,210,322)	(1,371,963)	(1,030,091)	(1,389,929)	(1,227,507)	(3,154,317)	(3,316,423)
Total Assets Less Current Liabilities	17,130,596	17,506,652	18,251,156	17,865,328	18,679,230	19,088,008	19,974,937	19,733,253	20,732,303	21,225,977	27,365,227	27,729,690	27,597,666	26,763,932	26,452,458	24,051,751	23,415,749
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	4,958,397	5,789,288	5,489,847	6,390,136	6,885,301	7,858,617	7,703,320	8,788,757	9,368,818	10,629,433	11,192,438	11,267,592	10,650,336	10,565,357	8,401,935	8,014,837
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445

The Bournemouth-Swanage Motor Road & Ferry Co. Inc. Appendix 3.2 Forecast Year End Balance Sheets for the 16 Years to 31 March 2040 (Assuming an Increase in Toll Charges)																	
	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	6,218	7,671	7,327	8,052	8,129	8,479	8,076	8,829	8,806	9,183	9,371	9,548	9,536	9,941	9,466	10,345
Stocks & Debtors	610,525	602,460	603,913	603,569	604,294	604,371	604,721	604,318	605,071	605,048	605,425	605,613	605,790	605,778	606,183	605,708	606,587
Cash at Bank	4,027,158	4,281,356	5,609,188	5,684,205	7,051,068	8,154,440	9,579,144	9,542,356	11,006,464	11,947,952	509,179	1,009,047	1,800,999	2,099,077	3,152,399	2,707,264	3,871,247
	4,637,683	4,883,816	6,213,101	6,287,773	7,655,361	8,758,811	10,183,865	10,146,674	11,611,535	12,553,000	1,114,604	1,614,660	2,406,789	2,704,854	3,758,581	3,312,971	4,477,834
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	91,583	93,472	95,414	97,413	26,479	26,479
Corporation Tax	80,589	264,338	295,974	238,005	247,933	386,588	396,211	253,058	260,106	411,991	289,418	-	-	-	-	-	-
	570,505	337,422	370,083	313,353	324,747	464,862	475,987	334,379	343,018	496,540	375,650	91,583	93,472	95,414	97,413	26,479	26,479
Net Current Assets	4,067,178	4,546,394	5,843,018	5,974,420	7,330,614	8,293,949	9,707,879	9,812,295	11,268,516	12,056,461	738,954	1,523,077	2,313,318	2,609,440	3,661,168	3,286,492	4,451,355
Total Assets Less Current Liabilities	17,130,596	17,506,652	18,700,116	18,728,358	19,981,392	20,841,567	22,152,337	22,153,593	23,506,654	24,191,439	30,314,503	30,624,730	30,941,075	30,763,301	31,341,132	30,492,560	31,183,527
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	16,910,810	18,104,274	18,132,516	19,385,550	20,245,725	21,556,495	21,557,751	22,910,812	23,595,597	24,753,639	25,176,021	25,613,156	25,565,474	26,283,414	25,585,740	26,439,223
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	4,958,397	6,238,248	6,352,877	7,692,298	8,638,860	10,036,017	10,123,660	11,563,108	12,334,280	13,578,709	14,087,478	14,611,000	14,649,705	15,454,032	14,842,745	15,782,615
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	16,910,810	18,104,274	18,132,516	19,385,550	20,245,725	21,556,495	21,557,751	22,910,812	23,595,597	24,753,639	25,176,021	25,613,156	25,565,474	26,283,414	25,585,740	26,439,223

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.																
Appendix 4.1																
Forecast dividends and returns on investment (in line with increases approved under The 2021 Order)																
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	16,910,810	17,655,314	17,269,486	18,083,388	18,492,166	19,379,095	19,137,411	20,136,461	20,630,135	21,804,363	22,280,981	22,269,748	21,566,105	21,394,739	19,144,930	18,671,445
Turnover	3,108,753	3,236,954	3,122,682	3,462,477	3,494,419	3,716,191	3,765,152	3,998,095	3,907,634	3,998,095	3,998,096	3,998,095	3,907,634	3,998,095	3,726,710	3,998,095
Profit after tax	376,056	744,504	(385,827)	813,902	408,778	886,929	(241,684)	999,050	493,673	1,174,228	476,618	(11,234)	(703,643)	(171,365)	(2,249,809)	(473,486)
Transfer to Ferry Replacement Reserve	(376,056)	(744,504)	385,827	(813,902)	(408,778)	(886,929)	241,684	(999,050)	(493,673)	(1,174,228)	(476,618)	11,234	703,643	171,365	2,249,809	473,486
Profit available for distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.																
Appendix 4.2																
Forecast dividends and returns on investment (assuming this application is approved).																
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	16,910,810	18,104,274	18,132,516	19,385,550	20,245,725	21,556,495	21,557,751	22,910,812	23,595,597	24,753,639	25,176,021	25,613,156	25,565,474	26,283,414	25,585,740	26,439,223
Turnover	3,108,753	3,835,568	3,663,278	4,025,859	4,064,530	4,239,493	4,037,982	4,414,430	4,402,950	4,591,399	4,685,655	4,774,235	4,767,861	4,970,320	4,732,755	5,172,267
Profit after tax	376,056	1,193,464	28,243	1,253,034	860,175	1,310,770	1,256	1,353,061	912,566	1,670,246	817,158	819,903	345,592	839,640	-697,674	853,483
Transfer to Ferry Replacement Reserve	(376,056)	(1,193,464)	(28,243)	(1,253,034)	(860,175)	(1,310,770)	(1,256)	(1,353,061)	(684,784)	(1,158,043)	(422,381)	(437,135)	47,682	(717,940)	697,674	(853,483)
Profit available for distribution	-	-	-	-	-	-	-	-	227,781	512,203	394,777	382,767	393,275	121,700	-	-
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.1%	1.6%	1.5%	1.5%	0.5%	0.0%	0.0%
Forecast dividends	0	0	0	0	0	0	0	0	227,781	512,203	394,777	382,767	393,275	121,700	0	0
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.1%	1.6%	1.5%	1.5%	0.5%	0.0%	0.0%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	11.2%	8.4%	8.0%	8.2%	2.4%	0.0%	0.0%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 5
Summary of costs for six years for 2019 to 2024 (excluding depreciation)

	2018	2019	2020	2021	2022	2023	2024	Average annual increase / (decrease) (%)	Total increase / (decrease) from 2018 to 2024 (%)
	£	£	£	£	£	£	£		
DIRECT COSTS									
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	2.3%	14.3%
Direct Wages	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	4.1%	40.7%
Staff recruitment costs	-	-	-	7,650	4,304	-	-		
Ferry repairs & maintenance - day to day	112,230	155,000	544,077	165,000	212,761	175,000	236,557	7.7%	110.8%
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	7.7%	57.2%
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	16.8%	196.2%
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552	18.9%	12.2%
Road repairs & maintenance	4,839	7,092	2,438	5,515	20,140	7,280	5,599	7.0%	15.7%
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	18.4%	6.1%
Total Direct Costs	958,407	1,022,139	1,394,901	1,138,221	1,295,510	1,350,299	1,486,764	5.9%	55.1%
OVERHEADS									
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	4.9%	56.4%
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	3.3%	29.4%
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721		
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	(7.6%)	(13.9%)
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	(100.0%)	(100.0%)
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	31.1%	797.6%
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	(1.6%)	10.4%
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	(31.2%)	(99.3%)
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	7.9%	(8.9%)
Advertising	45	45	1,713	45	330	-	-	(100.0%)	(100.0%)
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	(2.8%)	(14.8%)
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	14.7%	66.1%
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	6.9%	531.5%
Audit fees	11,000	11,325	11,665	11,985	12,880	21,135	34,450	11.5%	213.2%
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	11.2%	202.9%
Bad & Doubtful debts	-	-	-	-	-	-	49,758		
Accomodation and subsistence	-	-	-	-	799	4,694	2,225		
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	7.1%	135.5%
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	1.9%	65.0%
Grand Total	1,513,253	1,572,249	1,992,297	1,724,679	1,964,238	1,971,907	2,402,407	4.5%	58.8%

Proposed Tolls		Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £	Approved toll	Approved discount £
		Effective from:	1/4/24	1/4/25	1/4/26	1/4/27	1/4/28	1/4/29	1/4/30	1/4/31	1/4/32	1/4/33	1/4/34	1/4/35	1/4/36	1/4/37	1/4/38	1/4/39													
Class 1	Pedestrian	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Class 2	Pedal or Motor Cycle	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Class 3	Passenger vehicle < 16 persons (Cars)	5.30		5.40		5.60		5.80		6.00		6.25		6.50		6.75		6.75		6.75		6.75		6.75		6.75		6.75		6.75	
Class 4	Passenger vehicle > 16 persons (Coaches)	10.60		10.80		11.20		11.60		12.00		12.50		13.00		13.50		13.50		13.50		13.50		13.50		13.50		13.50		13.50	
Class 5	Goods vehicle < 3,500kgs (Cars)	5.30		5.40		5.60		5.80		6.00		6.25		6.50		6.75		6.75		6.75		6.75		6.75		6.75		6.75		6.75	
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10.60		10.80		11.20		11.60		12.00		12.50		13.00		13.50		13.50		13.50		13.50		13.50		13.50		13.50		13.50	
Class 7	Book of 50 tickets for Pedestrians	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%
Class 7b	Book of 100 tickets for Pedestrians	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%
Class 9	Book of 50 tickets for cycles	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%	45.00	10.00%
Class 9b	Book of 100 tickets for cycles	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%	85.00	15.00%
Class 10	Book of 10 tickets for Motor Cars	38.16	28.00%	38.88	28.00%	40.32	28.00%	41.76	28.00%	43.20	28.00%	45.00	28.00%	46.80	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%	48.60	28.00%
Class 11	Book of 50 tickets for Motor Cars	180.20	32.00%	183.60	32.00%	190.40	32.00%	197.20	32.00%	204.00	32.00%	212.50	32.00%	221.00	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%	229.50	32.00%
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	76.32	28.00%	77.76	28.00%	80.64	28.00%	83.52	28.00%	86.40	28.00%	90.00	28.00%	93.60	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	360.40	32.00%	367.20	32.00%	380.80	32.00%	394.40	32.00%	408.00	32.00%	425.00	32.00%	442.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%
Class 14	Book of 10 tickets for Buses & Coaches	76.32	28.00%	77.76	28.00%	80.64	28.00%	83.52	28.00%	86.40	28.00%	90.00	28.00%	93.60	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%	97.20	28.00%
Class 15	Book of 50 tickets for Buses & Coaches	360.40	32.00%	367.20	32.00%	380.80	32.00%	394.40	32.00%	408.00	32.00%	425.00	32.00%	442.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%	459.00	32.00%

Income by Class	2025	Annualised* Income (NON refit year) Y/E 31/3/24	Category designation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	Traffic Volume	£		£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Class 1 Pedestrian	75,471	75,471	A	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471	75,471
Class 2 Pedal or Motor Cycle	98,803	98,803	B	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803	98,803
Class 3 Passenger vehicle < 16 persons (Cars)	467,928	2,433,225	F	2,480,018	2,526,811	2,620,397	2,713,983	2,807,569	2,924,551	3,041,533	3,158,515	3,158,515	3,158,515	3,158,515	3,158,515	3,158,515	3,158,515	3,158,515	3,158,515
Class 4 Passenger vehicle > 16 persons (Coaches)	360	3,744	C	3,816	3,888	4,032	4,176	4,320	4,500	4,680	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860
Class 5 Goods vehicle < 3,500kgs (Cars)	2,458	12,784	F	13,030	13,276	13,768	14,260	14,752	15,367	15,982	16,597	16,597	16,597	16,597	16,597	16,597	16,597	16,597	16,597
Class 6 Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10,355	107,696	G	109,767	111,838	115,980	120,122	124,264	129,442	134,620	139,798	139,798	139,798	139,798	139,798	139,798	139,798	139,798	139,798
Class 7 Book of 50 tickets for Pedestrians	1,111	1,000	A	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Class 7b Book of 100 tickets for Pedestrians	2,600	2,210	A	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210	2,210
Class 9 Book of 50 tickets for cycles	7,778	7,000	B	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Class 9b Book of 100 tickets for cycles	8,616	7,324	B	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324	7,324
Class 10 Book of 10 tickets for Motor Cars	83,747	313,550	F	319,580	325,610	337,670	349,730	361,790	376,865	391,940	407,015	407,015	407,015	407,015	407,015	407,015	407,015	407,015	407,015
Class 11 Book of 50 tickets for Motor Cars	69,368	245,287	F	250,004	254,721	264,155	273,589	283,023	294,816	306,609	318,402	318,402	318,402	318,402	318,402	318,402	318,402	318,402	318,402
Class 12 Book of 10 tickets for Goods Vehicles (Trucks)	58	487	G	445	453	470	487	504	525	546	567	567	567	567	567	567	567	567	567
Class 13 Book of 50 tickets for Goods Vehicles (Trucks)	792	5,599	G	5,707	5,815	6,030	6,245	6,460	6,729	6,998	7,267	7,267	7,267	7,267	7,267	7,267	7,267	7,267	7,267
Class 14 Book of 10 tickets for Buses & Coaches	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 15 Book of 50 tickets for Buses & Coaches	32	225	C	229	233	242	251	260	271	282	293	293	293	293	293	293	293	293	293
				3,374,404	3,434,453	3,554,552	3,674,651	3,794,750	3,944,874	4,094,998	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122

Income By Category																			
Class A (Foot passenger)	79,182			78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681	78,681
Class B/C (Bikes & motorcycles)	115,197			113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127	113,127
Class F (Car)	623,502			3,062,632	3,120,418	3,235,990	3,351,562	3,467,134	3,611,599	3,756,064	3,900,529	3,900,529	3,900,529	3,900,529	3,900,529	3,900,529	3,900,529	3,900,529	3,900,529
Class G (Truck)	11,205			115,919	118,106	122,480	126,854	131,228	136,696	142,164	147,632	147,632	147,632	147,632	147,632	147,632	147,632	147,632	147,632
Coach & Bus	392			4,045	4,121	4,274	4,427	4,580	4,771	4,962	5,153	5,153	5,153	5,153	5,153	5,153	5,153	5,153	5,153
				3,374,404	3,434,453	3,554,552	3,674,651	3,794,750	3,944,874	4,094,998	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122	4,245,122

Income By Category (based on average traffic volumes for 2018 and 2024 reduced for expected decline in traffic)																		
Class A (Foot passenger)	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072	81,072
Class B/C (Bikes & motorcycles)	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346	111,346
Class F (Car)	2,846,396	2,900,102	3,007,514	3,114,926	3,222,338	3,356,603	3,490,868	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133	3,625,133
Class G (Truck)	137,587	140,183	145,374	150,566	155,758	162,248	168,738	175,228	175,228	175,228	175,228	175,228	175,228	175,228	175,228	175,228	175,228	175,228
Coach & Bus	4,173	4,252	4,410	4,568	4,725	4,923	5,120	5,317	5,317	5,317	5,317	5,317	5,317	5,317	5,317	5,317	5,317	5,317
	3,180,573	3,236,954	3,349,715	3,462,477	3,575,238	3,716,191	3,857,143	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095	3,998,095

Income workings for 17 years to 31st March 2040 (assuming this application is approved)

Inflation rate	CPI

Proposed Tolls		Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £		
Effective from:		1/4/24		1/4/25		1/4/26		1/4/27		1/4/28		1/4/29		1/4/30		1/4/31		1/4/32		1/4/33		1/4/34		1/4/35		1/4/36		1/4/37		1/4/38		1/4/39	
Class 1	Pedestrian	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.95		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29	
Class 2	Pedal or Motor Cycle	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.95		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29	
Class 3	Passenger vehicle < 16 persons (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20	
Class 4	Passenger vehicle > 16 persons (Coaches)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		15.76		16.08		16.40	
Class 5	Goods vehicle < 3,500kgs (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20	
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		15.76		16.08		16.40	
Class 7	Book of 50 tickets for Pedestrians	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	82.08	24.00%	83.60	24.00%	85.12	24.00%	87.02	24.00%
Class 7b	Book of 100 tickets for Pedestrians	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%	164.88	28.00%
Class 9	Book of 50 tickets for cycles	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	82.08	24.00%	83.60	24.00%	85.12	24.00%	87.02	24.00%
Class 9b	Book of 100 tickets for cycles	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%	164.88	28.00%
Class 10	Book of 10 tickets for Motor Cars	38.16	28.00%	40.05	36.03%	42.61	33.00%	45.88	28.98%	50.08	24.00%	51.07	24.00%	52.14	24.00%	53.20	24.00%	54.26	24.00%	55.33	24.00%	56.47	24.00%	57.53	24.00%	58.75	24.00%	59.89	24.00%	61.10	24.00%	62.32	24.00%
Class 11	Book of 50 tickets for Motor Cars	180.20	32.00%	189.14	39.57%	201.40	36.67%	217.05	32.80%	237.24	28.00%	241.92	28.00%	246.96	28.00%	252.00	28.00%	257.04	28.00%	262.08	28.00%	267.48	28.00%	272.52	28.00%	278.28	28.00%	283.68	28.00%	289.44	28.00%	295.20	28.00%
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.99%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%	124.64	24.00%
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%	590.40	28.00%
Class 14	Book of 10 tickets for Buses & Coaches	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.99%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%	124.64	24.00%
Class 15	Book of 50 tickets for Buses & Coaches	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%	590.40	28.00%
Toll Road				6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20	

Income by Class		Annualised Income (NON refit year)		Category designation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
		2025 Traffic Volume	Y/E 31/3/24		£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Class 1	Pedestrian	75,471	75,471	A	75,471	132,074	133,583	135,847	138,866	141,885	144,149	147,168	150,187	153,206	156,225	159,244	163,018	166,037	169,056	172,830
Class 2	Pedal or Motor Cycle	98,803	98,803	B	98,803	172,905	174,881	177,845	181,797	185,749	188,713	192,665	196,617	200,569	204,521	208,473	213,413	217,365	221,317	226,257
Class 3	Passenger vehicle < 16 persons (Cars)	467,928	2,433,225	F	2,480,018	2,929,229	2,976,022	3,022,815	3,083,646	3,144,477	3,209,987	3,275,497	3,341,007	3,406,517	3,476,706	3,542,216	3,617,085	3,687,274	3,762,143	3,837,012
Class 4	Passenger vehicle > 16 persons (Coaches)	360	3,744	C	3,816	4,507	4,579	4,655	4,749	4,843	4,940	5,041	5,142	5,243	5,351	5,455	5,567	5,675	5,790	5,905
Class 5	Goods vehicle < 3,500kgs (Cars)	2,458	12,784	F	13,030	15,390	15,636	15,882	16,202	16,522	16,866	17,210	17,554	17,898	18,267	18,611	19,004	19,373	19,766	20,159
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10,355	107,696	G	109,767	129,649	131,720	133,895	136,587	139,279	142,075	144,974	147,873	150,772	153,879	156,882	160,092	163,199	166,513	169,827
Class 7	Book of 50 tickets for Pedestrians	1,111	1,000	A	1,000	1,105	1,228	1,375	1,554	1,588	1,613	1,647	1,681	1,715	1,749	1,783	1,825	1,859	1,893	1,935
Class 7b	Book of 100 tickets for Pedestrians	2,600	2,210	A	2,210	2,442	2,715	3,044	3,444	3,519	3,575	3,650	3,725	3,800	3,875	3,950	4,044	4,119	4,194	4,288
Class 9	Book of 50 tickets for cycles	7,778	7,000	B	7,000	7,734	8,593	9,624	10,875	11,111	11,288	11,524	11,760	11,996	12,232	12,468	12,763	12,999	13,235	13,530
Class 9b	Book of 100 tickets for cycles	8,616	7,324	B	7,324	8,094	9,000	10,090	11,415	11,663	11,849	12,097	12,345	12,593	12,841	13,089	13,399	13,647	13,895	14,205
Class 10	Book of 10 tickets for Motor Cars	83,747	313,550	F	319,580	335,366	356,847	384,211	419,406	427,697	436,658	445,535	454,412	463,373	472,920	481,797	492,014	501,561	511,694	521,911
Class 11	Book of 50 tickets for Motor Cars	69,368	245,287	F	250,004	262,411	279,417	301,126	329,141	335,634	342,626	349,618	356,610	363,602	371,094	378,086	386,077	393,569	401,560	409,551
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	58	437	G	445	467	497	535	584	596	608	620	632	644	657	670	684	697	711	725
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	792	5,599	G	5,707	5,990	6,378	6,878	7,519	7,667	7,821	7,981	8,141	8,301	8,472	8,637	8,814	8,985	9,167	9,349
Class 14	Book of 10 tickets for Buses & Coaches	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 15	Book of 50 tickets for Buses & Coaches	32	225	C	229	240	256	276	302	308	314	320	326	332	339	346	353	360	367	374
Toll Road						51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241
					3,374,404	4,058,936	4,153,505	4,261,071	4,400,126	4,487,643	4,579,335	4,672,948	4,766,561	4,860,258	4,960,055	5,053,782	5,161,539	5,261,336	5,367,230	5,475,099

Income By Category		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Class A (Foot passenger)	79,182	78,681	135,621	137,526	140,266	143,864	146,992	149,337	152,465	155,593	158,721	161,849	164,977	168,887	172,015	175,143	179,053
Class B/C (Bikes & motorcycles)	115,197	113,127	188,733	192,474	197,559	204,087	208,523	211,850	216,286	220,722	225,158	229,594	234,030	239,575	244,011	248,447	253,992
Class F (Car)	623,502	3,062,632	3,542,396	3,627,922	3,724,034	3,848,395	3,924,330	4,006,137	4,087,860	4,169,583	4,251,390	4,338,987	4,420,710	4,514,180	4,601,777	4,695,163	4,788,633
Class G (Truck)	11,205	115,919	136,106	138,595	141,308	144,690	147,542	150,504	153,575	156,646	159,717	163,008	166,189	169,590	172,881	176,391	179,901
Coach & Bus	392	4,045	4,747	4,835	4,931	5,051	5,151	5,254	5,361	5,468	5,575	5,690	5,801	5,920	6,035	6,157	6,279
Toll Road	-	-	51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241
		3,374,404	4,058,936	4,153,505	4,261,071	4,400,126	4,487,643	4,579,335	4,672,948	4,766,561	4,860,258	4,960,055	5,053,782	5,161,539	5,261,336	5,367,230	5,475,099

Income By Category (based on average traffic volumes for 2018 and 2024 reduced for expected decline in traffic)		2025	2026	2027	2028	2029	2030	2031	2032

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 6.1

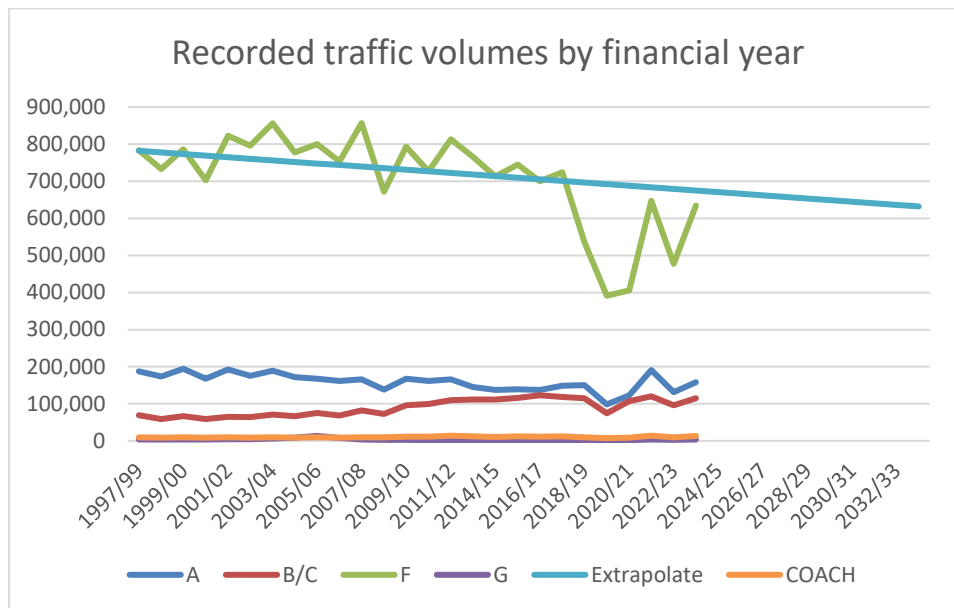
Cash flow analysis (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit/(Loss) [Profit Before Interest & Tax]	835,695	414,980	920,024	(591,954)	1,016,664	456,051	1,079,380	(447,510)	1,212,202	513,682	1,054,347	601,235	516,468	(208,155)	339,490	(1,761,609)	152,098
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	8,065	(256)	229	(680)	(64)	(444)	(98)	(466)	181	(181)	(0)	0	181	(181)	543	(543)
Increase (Decrease) in creditors due within one year	(652,957)	(233,083)	(42,166)	(125,742)	13,033	133,894	13,674	(106,864)	20,277	124,196	(144,557)	(135,200)	(35,677)	39,295	1,888	1,943	1,999
Net Cash Inflow From Operating Activities	1,305,975	293,123	980,762	(614,308)	1,132,177	693,041	1,195,770	(451,312)	1,335,173	741,219	1,012,769	939,931	954,686	305,218	815,093	(1,285,227)	627,451
Interest received	73,492	120,815	107,034	111,905	102,925	123,372	137,579	159,652	154,252	178,936	194,803	(199,537)	(145,394)	(121,817)	(146,485)	(133,847)	(282,020)
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Dividend paid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporation tax paid	(175,766)	(159,739)	(282,554)	94,222	(305,687)	(170,646)	(330,030)	46,174	(367,403)	(198,945)	(74,921)	74,921	-	-	-	-	-
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	254,198	805,242	(408,181)	929,415	645,767	1,003,319	(245,486)	1,122,021	721,210	(11,446,059)	703,160	306,195	(320,362)	164,129	(1,924,325)	(160,650)
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)
Closing Cash at Bank & In Hand	4,027,158	4,281,356	5,086,598	4,678,417	5,607,832	6,253,599	7,256,918	7,011,432	8,133,454	8,854,664	(2,591,395)	(1,888,235)	(1,582,041)	(1,902,403)	(1,738,273)	(3,662,598)	(3,823,248)

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 6.2
Cash flow analysis (assuming this application is approved)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit [Profit Before Interest & Tax]	835,695	414,980	1,518,638	(51,358)	1,580,046	1,026,162	1,602,682	(174,680)	1,628,537	1,008,998	1,647,651	1,288,794	1,292,608	652,072	1,311,715	(755,564)	1,326,270
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	8,065	(1,454)	345	(725)	(77)	(350)	403	(753)	23	(377)	(189)	(177)	13	(405)	475	(879)
Increase (Decrease) in creditors due within one year	(652,957)	(233,083)	32,661	(56,731)	11,395	140,115	11,125	(141,607)	8,639	153,522	(120,889)	(284,067)	1,888	1,943	1,999	(70,934)	-
Net Cash Inflow From Operating Activities	1,305,975	293,123	1,653,006	(4,585)	1,693,875	1,269,360	1,716,617	(212,724)	1,739,583	1,265,703	1,629,544	1,478,435	1,768,215	1,127,924	1,787,205	(352,127)	1,799,287
Interest received	73,492	120,815	107,034	123,402	125,053	155,123	179,398	210,741	209,932	242,142	262,855	11,202	22,199	39,622	46,180	69,353	59,560
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Dividend paid	-	-	-	-	-	-	-	-	-	(227,781)	(512,203)	(394,777)	(382,767)	(393,275)	(121,700)	-	-
Corporation tax paid	(175,766)	(159,739)	(432,208)	(43,801)	(452,065)	(321,111)	(471,310)	(34,805)	(485,407)	(338,575)	(240,260)	(100,530)	(121,233)	18,268	(163,901)	332,101	(200,402)
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	254,198	1,327,832	75,017	1,366,863	1,103,372	1,424,704	(36,788)	1,464,107	941,489	(11,438,773)	499,868	791,952	298,078	1,053,322	(445,135)	1,163,984
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,281,356	5,609,188	5,684,205	7,051,068	8,154,440	9,579,144	9,542,356	11,006,464	11,947,952	509,179	1,009,047	1,800,999	2,099,077	3,152,399	2,707,264
Closing Cash at Bank & In Hand	4,027,158	4,281,356	5,609,188	5,684,205	7,051,068	8,154,440	9,579,144	9,542,356	11,006,464	11,947,952	509,179	1,009,047	1,800,999	2,099,077	3,152,399	2,707,264	3,871,247

Appendix D



Appendix E

Year	A	B/C	F	G	COACH
1997/99	187,141	69,249	783,635	3,637	9,383
1998/99	173,540	59,118	732,759	3,256	8,872
1999/00	194,373	66,396	786,909	3,803	9,418
2000/01	167883	58843	702988	3904	8380
2001/02	192479	64701	822579	4533	9345
2002/03	175027	63574	796209	4383	8769
2003/04	188898	71271	856698	6435	9448
2004/05	172233	66808	778130	8338	8809
2005/06	167226	74869	800776	13311	9312
2006/07	161254	67905	753798	7645	8324
2007/08	165761	82504	856972	3931	9274
2008/09	138415	72989	671727	2514	9578
2009/10	167747	95697	793532	2350	11078
2010/11	161458	99250	726796	2009	11464
2011/12	165548	109850	812926	2040	13813
2013/14	144809	111397	765437	1741	12080
2014/15	137310	111617	713241	1684	10764
2015/16	138850	115394	744785	1475	11965
2016/17	137301	122957	700522	1415	11617
2017/18	148446	118484	724102	2035	11898
2018/19	150150	115289	536088	2129	9184
2019/20	98372	74572	391480	1554	7400
2020/21	122469	106816	406058	2204	8794
2021/22	191212	120349	647606	3359	13553
2022/23	131196	95973	477839	2384	9327
2023/24	158050	114867	634504	3250	12705

Appendix F

	2018	2019	2020	2021	2022	2023	2024	Average annual increase	Total increase
	£	£	£	£	£	£	£		
Total costs (excluding depreciation)	1,513,253	1,572,249	1,992,297	1,724,679	1,964,238	1,971,907	2,402,407	6.8%	58.8%
Increase from previous year		1.80%	1.50%	0.70%	7.00%	10.10%	2.90%		
Expected costs inflated by actual CPI	1,513,253	1,540,492	1,563,599	1,574,544	1,684,762	1,854,923	1,908,716	3.4%	26.1%
Costs in excess of expected CPI increase		31,757	428,698	150,135	279,476	116,984	493,691		

Appendix G

Actual per audited accounts

	2018 £	2019 £	2020 £	2021 £	2022 £	2023 £	2024 £
Total Sales	3,130,862	2,508,443	1,702,897	1,885,873	3,049,698	2,400,575	3,314,355
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,369,982	1,726,788	1,589,924
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643
Margin	1,440,389	(97,245)	(390,511)	(291,594)	983,988	(947,821)	808,788

IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON THE
BOURNEMOUTH SWANAGE MOTOR ROAD & FERRY LINK

REBUTTAL PROOF OF EVIDENCE – JANUARY 2025

PREPARED BY KEVIN THOMAS, ACCOUNTANT AND TAX ADVISER, RICKARD LUCKIN

Introduction

1. This proof of evidence is structured as follows:
 - a. The need for prudent financial forecasting
 - b. Discussion of traffic volumes on the Ferry, including projections based upon an average of 2018 and 2024 levels (with no decrease or increase over time)
 - c. Financial analysis of the Consortium's 'sensitivity analysis' demonstrating the errors in their calculations
 - d. Response to various points made by the Consortium
 - e. I set out additional unexpected expenses that have been announced since this application was made, in the form of National Insurance and National Living Wage increases.

Financial forecasting

2. In order to make financial projections into the future it is necessary to make informed assumptions. In the case of the Ferry Company the need for cautious assumptions follows from the fact that the Company has very significant regular costs but is also heavily exposed to financial risk. The financial risks take various forms but include the fact that the company is entirely dependent on a single ferry, a complex mechanical vehicle, which can suffer unexpected outages despite regular maintenance. These result in both high repair costs and a complete pause in income. A bad summer, or run of bad summers, significantly depresses income, but costs remain the same. In addition to these particular risks, the Ferry Company also faces the usual commercial risks faced by all other businesses: the Ferry Company was greatly affected by Covid and is still suffering from changes in behaviour following Covid. More recently it, like other companies, learned it would

have to bear increases in National Insurance and the National Living Wage. While these various factors make the Ferry Company particularly exposed to financial risk, it is obviously unable to readily change its pricing should it encounter unexpected costs. Making an application to amend tolls is costly, takes considerable time, and is uncertain. It is an additional cost at a time when the Company is already, almost by definition, in a difficult financial position.

3. The need for cautious conservative financial forecasting has been demonstrated by the audited accounts for the years 2020 to 2024 which showed total profits after tax (before transfers to Ferry Replacement Reserve) of £1.498m compared to submissions to the 2021 enquiry forecasting a profit after tax (before transfer) for the same period of £4.882m – a fall of £3.384m in five years. This is not sustainable and will not lead to the company having adequate resources to purchase a new ferry.
4. The forecasts indicate the current order will result in a marginal surplus on the FRR and no dividend payments to investors throughout the forecast period. The company will be wholly reliant on borrowing up to its borrowing cap (assuming that it is able to obtain a willing lender) and with little ‘headroom’ to cover any financial downturn as experienced previously.
5. Prudent financial forecasting therefore requires there to be close attention to long-term data to inform likely future income and expenditure, an allowance for ‘headroom’ for the various unpredictable financial challenges which, while unpredictable in nature and timing, are nevertheless likely to occur at some point over the projected periods, and not making assumptions which are based upon little evidence, or indeed based upon optimism. It is this prudent approach that the Ferry Company and I have taken. By contrast, the position advocated by the Consortium (based on increasing traffic volumes) appears to be ungrounded in reliable evidence and based upon unrealistic growth.

Future Traffic Volume projections for the Ferry

6. In my previous proof of evidence dated November 2024 I set out (table following paragraph 38, page 5) that, even excluding Covid and extraordinary outage years, the long-term data showed that usage of the Ferry has declined over time. At paragraph 39 I explained how, when one compares 2018 to 2024 (which were both normal years) there has been a decline in Class F traffic volumes. I noted that this, and the longer-term data, would tend to indicate that traffic volumes would continue to decline. In order to project that, the baseline actual figures for 2024 were reduced by an average for the percentage decline between 2018 and 2024. This was then applied (without any further ongoing reduction) forward into the future at a constant level. As such, having applied the initial adjustment of -7.06% to Class F (cars) and similarly calculated adjustments for other classes, there was no ongoing decline assumed.
7. The Consortium, by contrast, are arguing that traffic volumes are likely to increase. There is no data relating to the Ferry which supports that. I note that the Consortium seek to rely on data regarding free road use in various parts of the region but question its relevance. It certainly would not be a safe basis upon which to make long term financial projections for a company. I note that traffic increases on roads is hardly a new thing. The graph relied upon by the Consortium at page 15 of their 'Final Consortium Response' shows a steady increase in traffic over time on a major trunk road, the A351 at Stoborough between 1995 and 2022. However, this has not previously translated into increased use of the ferry, which has declined. No prudent company would assume that future traffic increases in the region would mean greater traffic volumes when the historic data has shown otherwise. It is also worth noting that the local population of Swanage has fallen by 7.4% between 2001 and 2021 and that of Studland by 24.8% over the same period.¹

¹ <https://www.citypopulation.de/en/uk/southwestengland/admin/dorset/E04003482> and <https://citypopulation.de/en/uk/southwestengland/dorset/E63006818>

8. The Consortium is correct that the actual traffic data for the ferry does show a partial rebound in post Covid traffic volumes. The Company had anyway excluded the Covid years when assessing long term traffic volume trends as being anomalous. Importantly, the post-Covid traffic volumes have not returned to pre-Covid levels. They are still significantly lower than in 2018, as noted above.
9. For clarity the Inspector may wish to know what the financial projections would be for the Company based upon traffic levels continuing at an average level of the two most recent years unaffected by exceptional events, 2018 and 2024. The year 2024 saw lower traffic levels than 2018, so an average of 2018 and 2024 actually assumes a modest increase in traffic volumes from the most recent year. I attach at Appendix I projections taking the average traffic volumes from 2018 and 2024 and keeping the volumes at these levels throughout the forecast period. In this scenario, traffic volumes for Class F start and remain at 7.06% above 2024 traffic volumes. My calculation is:

	CLASS				
	A	B/C	F	G	COACH
2017/18 volumes	148,446	118,484	724,102	2,035	11,898
2023/24 volumes	158,050	114,867	634,504	3,250	12,705
Average	153,248	116,676	679,303	2,643	12,302
% increase (decrease) compared to 2024	(3.04%)	1.57%	7.06%	(18.69%)	(3.18%)

10. The other change was that £50,000 PA has also been removed from “Other Income” in the current financial year (FYE 31March 2025) and the three following financial years.

11. From this it can be seen that the 2021 Order results in a small surplus on the Ferry Replacement Reserve to allow for the purchase of new ferry. It leaves a margin for unexpected costs but not sufficient margin to manage an unexpected downturn in profitability as experienced in the years 2020 to 2024 inclusive. Further it provides zero return for investors over the forecast period to 2040. By contrast the application, if approved, will however, provide the company a greater margin to cover the unforeseen and enable it to purchase the new ferry as planned and permit a reasonable, but not excessive, return on investment.

Financial Analysis of the Consortium's 'sensitivity analysis'

12. The Consortium has produced seven scenarios which purport to calculate income to the Ferry Company based on various stated assumptions.
13. First, it is worth noting that the Consortium have restricted their analysis to enhanced income projections only. Plainly this only gives one part of the picture.
14. Second, they have assumed the ferry is fully operational all year round without any need for refit or maintenance. It is common knowledge that this is not the case, with the ferry undergoing a program of regular major and minor refits during which there is no passenger income.
15. Third, no consideration has been given to the possibility of a major mechanical failure, exceptional repairs or maintenance to slipways, the ferry road, or other assets. There is no 'headroom' at all. They are seemingly prepared to accept that the company will have to find a way of financing any exceptional items from its limited resources notwithstanding that this will jeopardise the ability to build up a sufficient FRR. Ultimately this could put the company in a position where it cannot purchase a new ferry because it cannot raise sufficient funds as its borrowing requirements are greater than its borrowing cap.

16. Fourth, several of the Consortium's assumptions are not realistic or grounded in evidence. Scenarios 2, 3, 5 and 6 assume increases or decreases in traffic volume without any real evidence to support the same.

17. The Consortium's failure to account for the impact of refits on income is significant. This was detailed in my previous witness statement paragraph 52: *"In a refit year traffic volumes will reduce. Historic data indicates traffic volume decreases by the following averages:-*

<i>Class A (foot passengers) -</i>	<i>4%</i>
<i>Class B (bikes and motorcycles) -</i>	<i>7.1%</i>
<i>Class F (car) -</i>	<i>6.6%</i>
<i>Class G (truck) -</i>	<i>12.3%</i>
<i>Coach and bus -</i>	<i>4.4%"</i>

The ferry is not in operation during a major refit (every 4 years) for on average 6 weeks and during a minor refit (2 years after every major refit) for on average 2 weeks.

18. I have examined the seven scenarios, and even on their own terms (i.e. even if the assumptions about traffic volume were reasonable) they are erroneous for the above reasons.

19. Given that the points about traffic assumptions (and their grounding in evidence or otherwise) are likely to be contentious, I have analysed the seven scenarios only by reference to the fact that they do not take into account the downturn in income caused by refits, and they assume higher increases in fares than the 2% CPI forecast by the Bank of England.

My findings are set out in the following table:

Scenario	Income overstated
Scenario 1- 2021 order with continued 3% fare increase, traffic levels in line with 2024 volumes	£3,313,974
Scenario 2- 2021 order with DfT traffic growth scenario for class F	£3,485,589
Scenario 3- 2021 order with decline of Class F traffic	£3,141,544
Scenario 4- Ferry Company November 2024 Revision, traffic levels in line with 2024 volumes	£1,315,870
Scenario 5- Ferry Company November 2024 Revision with DfT Growth Scenario	£1,359,952
Scenario 6- Ferry Company November 2024 Revision with decline of Class F Traffic	£1,290,431
Scenario 7- Ferry Company November 2024 Revision (with FC forecasted decline in traffic)	£1,242,974

20. For reasons highlighted in paragraph 14 above, presentation of income projections alone are not a sufficient indication of the resultant profit or loss to the business. It is correct to state that in different scenarios income can vary but it is also correct that in various expenditure scenarios, expenditure can vary resulting in a material difference to retained profits or losses.

21. The Consortium have also conspicuously failed to recognise a fundamental requirement referred to elsewhere in this application. They have overlooked that the company is in the business of operating a ferry for the benefit of its customers, the community and its other stakeholders. The owners have invested in the company to meet these needs and then to also earn a fair return on their investment.

22. The owners last took a dividend in 2018 and since then, undertook to put the needs of all its stakeholders in priority to taking a return on its investment. That is

ignored by the consortium. Their focus is solely on the requirement that the ferry operator should be running a service with low enough tolls to allow it to just accumulate sufficient FRR to purchase a new ferry, whilst maximising its borrowings and giving no, or very little, return to the owners.

Response to various points made by the Consortium

23. In section 4 of their Proof, the Consortium have criticised the increase in tolls proposed by the Company in respect of Classes A, B and C (foot passengers and cycles/motorcycles). However, the increases in nominal terms are not increases in real terms from the previous Orders. Instead, they reflect the inflationary change since the last increase in the toll. In other words, the proposal simply halts the significant real terms decrease in those fares over time that has occurred. Moreover, it will be noted that the Company has amended its original proposal by phasing in the price changes for advance purchases of Classes A, B and C over a 4-year period and when this is considered, together with the 24% and 28% discount rates, advance purchases will remain below inflation.

24. This ‘catchup’ to account for the effect of inflation since the last toll increases is necessary. The Company, like everyone else, was subject to a period of unusually high inflation. However, the 2021 Order meant that ferry users were entirely shielded from this in relation to the price of their ticket. Because of the way the company it is regulated, a simple exercise to pass on the cost of living increase like virtually all other suppliers is not possible. The company must wait for periodic applications to seek redress and must constantly work in arrears. As such, by pointing out the increases in ticket prices proposed by the Company at paras 4.3 and 4.4 of their proof of evidence, the Consortium are in fact highlighting the extent to which the ticket prices have been held artificially below inflation, i.e. the extent to which the prices have declined in real terms.

25. I note the Consortium go on to propose fare increases be limited to CPI or 3%, whichever is less, see para 4.14. of their proof. In other words, they propose that if

inflation is higher, this should be borne doubly by the Company, both in its increased expenses, and in the fact that the ticket tolls it could charge would be falling in real terms. Ferry customers would be shielded from inflation, but the Company doubly exposed. This is a recipe for financial ruin, not prudent management. It appears to have no regard to the statutory test.

26. I note that the Consortium have stated that there is a risk of change in consumer behaviour due to the increased fares. This is supposition. But in any event, it seems unlikely when one considers the costs of the alternative option, taking the A351. All petrol and diesel users can save considerable mileage, cost and time by choosing the ferry over the A351 alternative. For users of hybrid or electric vehicles there will be savings in time and mileage.

The RAC website suggests the following costs of running a petrol or diesel car:²

Engine size (cc)	up to 1000	up to 1200	up to 1400	up to 1800	up to 2000	up to 2500	up to 3000	over 3000
Assumed fuel consumption (mpg)	60	50	46	40	36	31	27	25
<i>Cost Per Mile excluding petrol</i>	23.8	28.7	33.4	43.9	51.6	68.9	78.9	89.1
<i>Petrol cost per mile @ £1.30/Ltr</i>	9.8	11.8	12.8	14.8	16.4	19	21.9	23.6
<i>Total cost per mile (pence)</i>	33.6	40.5	46.2	58.7	68	87.9	100.8	112.7
Cost of return trip	£7.14	£8.61	£9.82	£12.47	£14.45	£18.68	£21.42	£23.95

27. The Consortium state the return journey saving is 34km (21.25 miles). The cost is therefore between £7.14 for the smallest car and £23.95 for the largest of cars. For all but the smallest of petrol or diesel cars the ferry is considerably cheaper than the A351 (being a standard return fare of £12.52 or £7.56 with maximum discount). In addition, all drivers will have time savings from using the ferry. It is suggested

² https://media.rac.co.uk/blog_posts/typical-vehicle-running-costs-for-petrol-engine-cars-42585

that the time saved is at least 45 minutes per return journey although this will vary with traffic congestion.

Increased expenditure arising from increases in NI and national living wage

28. I mentioned these increases above simply as an example of one kind of unexpected change or event that can occur, resulting, in this case, in increased expenditure. This has now been accounted for in the Company's projections and results in an additional unexpected £30,000 cost to the Company. Calculations are shown below:

Total increase	71,609
Increase in forecast based upon RPI of 2.4%	31,062
Net increase	<u>40,546</u>
less CT relief	10,137
Cost to company	<u><u>30,410</u></u>

29. While this may be thought to be a relatively modest cost, it is an unexpected annual cost and the net increase is equivalent to 5,363 maximum discounted Class F return fares. Moreover, it is a further reduction in profits, and so in the amount that is available for the Ferry Replacement Reserve, let alone any return on investment.

**IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON
THE BOURNEMOUTH-SWANAGE MOTOR ROAD & FERRY LINK**

Appendix to the Rebuttal of Kevin Thomas.

Appendix	Page Number
Appendix I	2 - 12

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.1

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	Actual per audited accounts							Forecast															
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%	1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%	2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
SALES																							
Class A (Foot passenger)						75,341	78,681	75,285	76,290	73,276	76,290	75,285	76,290	73,276	76,290	75,285	76,290	76,290	76,290	75,285	76,290	73,276	76,290
Class B/C (Bikes & motorcycles)						100,180	113,127	112,205	114,908	106,799	114,908	112,205	114,908	108,823	114,908	112,205	114,908	114,908	114,908	112,205	114,908	106,799	114,908
Class F (car)						2,156,855	3,004,846	3,206,962	3,340,734	3,236,538	3,588,198	3,630,527	3,866,595	3,932,725	4,175,925	4,084,346	4,175,925	4,175,925	4,175,925	4,084,346	4,175,925	3,901,189	4,175,925
Class G (Truck) ex. VAT						63,081	113,732	90,380	96,029	87,315	103,142	102,316	111,144	111,350	120,036	115,106	120,036	120,036	120,036	115,106	120,036	105,246	120,036
Coach & Bus						5,118	3,969	3,859	3,990	3,956	4,286	4,369	4,619	4,950	4,989	4,916	4,989	4,989	4,989	4,916	4,989	4,769	4,989
Toll Road						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355	3,488,691	3,631,952	3,507,884	3,886,825	3,924,702	4,173,557	4,231,124	4,492,149	4,391,858	4,492,149	4,492,148	4,492,149	4,391,858	4,492,149	4,191,279	4,492,149
DIRECT COSTS																							
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	1,024,177	1,078,120	1,106,151	1,139,336	1,172,377	1,206,376	1,241,360	1,277,360	1,314,403	1,352,521	1,391,744	1,432,105	1,473,636	1,516,371	1,560,346	1,605,596
Staff recruitment costs	-	-	-	7,650	4,304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557	212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-	425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	major	none	minor	none	none	none	minor	none	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	9,732	8,757	8,950	9,183	9,458	9,752	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599	5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,203	101,472	103,426	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924	1,956,340	1,593,584	2,971,071	1,678,210	2,196,849	1,770,888	3,321,627	1,869,019	2,450,487	1,972,923	2,397,883	2,453,678	3,058,029	2,570,171	4,368,320	2,693,518
OVERHEADS																							
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	183,880	193,564	198,597	204,555	210,487	216,591	222,872	229,336	235,986	242,830	249,872	257,118	264,575	272,247	280,143	288,267
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721	143,074	150,609	154,525	159,161	163,777	168,526	173,413	178,442	183,617	188,942	194,421	200,060	205,861	211,831	217,975	224,296
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450	35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225	2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	814,986	842,943	864,859	890,805	916,638	943,221	970,574	998,721	1,027,684	1,057,487	1,088,154	1,119,710	1,152,182	1,185,595	1,219,977	1,255,357
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907	27,553	28,159	28,891	29,758	30,621	31,509	32,423	33,363	34,330	35,326	36,350	37,404	38,489	39,605	40,754	41,936
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695	744,918	1,223,584	(299,155)	1,347,568	841,836	1,490,957	(28,655)	1,657,772	948,017	1,497,065	1,042,462	956,165	220,136	775,988	(1,356,264)	585,210
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Current account interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492	120,815	114,232	124,221	120,208	146,501	167,740	197,358	199,621	232,540	256,545	13,092	42,992	62,158	69,968	87,943	59,407
Profit Before Tax (PBT)	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141	865,733	1,337,817	(174,934)	1,467,775	988,337	1,658,698	168,703	1,857,394	1,180,557	1,753,609	1,055,553	616,849	(91,376)	481,586	(1,622,674)	301,053
Corporation Tax	(30																						

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 2.2

Forecast Profit and Loss Accounts for 16 years to 31st March 2040 (assuming this application is approved)

	2018 £	2019 £	Actual per audited accounts				2023 £	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
			2020 £	2021 £	2022 £																			
CPI	2.50%	1.80%	1.50%	0.70%	7.00%	10.10%	2.90%		1.60%	1.60%	1.70%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
RPI	3.30%	2.60%	1.50%	4.00%	1.60%	8.90%	3.90%		2.40%	2.20%	2.60%	3.00%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	
SALES																								
Class A (Foot passenger)							75,341	78,681	75,285	131,500	128,078	136,004	137,656	142,526	139,078	147,833	148,878	153,899	156,932	159,965	161,599	166,789	163,111	173,613
Class B/C (Bikes & motorcycles)							100,180	113,127	112,205	191,704	181,708	200,669	202,424	211,806	200,000	219,691	218,923	228,703	233,209	237,715	237,623	247,853	234,550	257,991
Class F (car)							2,156,855	3,004,846	3,206,962	3,792,506	3,628,536	3,986,969	4,029,755	4,201,406	4,006,815	4,376,482	4,366,080	4,551,558	4,645,340	4,732,833	4,726,916	4,926,684	4,695,958	5,126,733
Class G (Truck) ex. VAT							63,081	113,732	90,380	110,665	98,804	114,894	112,812	119,963	107,293	124,868	122,134	129,862	132,538	135,124	132,226	140,566	125,748	146,273
Coach & Bus							5,118	3,969	3,859	4,596	4,475	4,774	4,819	4,987	4,863	5,191	5,217	5,398	5,509	5,617	5,648	5,843	5,699	6,080
Toll Road							-	-	-	51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241
Total Sales	3,130,862	2,508,443	1,702,897	1,855,873	3,049,698	2,400,575	3,314,355		3,488,691	4,282,304	4,093,754	4,496,283	4,541,505	4,735,793	4,514,302	4,931,466	4,919,781	5,129,117	5,234,455	5,333,329	5,327,399	5,552,352	5,290,995	5,777,931
DIRECT COSTS																								
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454		1,489	1,522	1,561	1,608	1,655	1,703	1,752	1,803	1,855	1,909	1,964	2,021	2,080	2,140	2,202	2,266
Ferry Wages (incl. Er's NIC)	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173		1,024,177	1,078,120	1,106,151	1,139,336	1,172,377	1,206,376	1,241,360	1,277,360	1,314,403	1,352,521	1,391,744	1,432,105	1,473,636	1,516,371	1,560,346	1,605,596
Staff recruitment costs	-	-	-	7,650	4,304	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferry repairs & maintenance - regular	112,230	155,000	544,077	165,000	212,761	175,000	236,557		212,992	217,678	223,337	230,038	236,709	243,573	250,637	257,905	265,385	273,081	281,000	289,149	297,534	306,163	315,042	324,178
Ferry repairs & maintenance - refit costs	-	932,367	-	321,585	-	2,273,063	-		425,574	-	1,338,736	-	472,962	-	1,502,375	-	530,259	-	-	-	546,937	-	1,737,357	-
	none	major	none	minor	none	major	none		minor	none	major	none	minor	none	major	none	minor	none	none	none	major	minor	major	none
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699		120,524	123,175	126,378	130,169	133,944	137,828	141,826	145,938	150,171	154,526	159,007	163,618	168,363	173,245	178,270	183,439
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271		41,175	42,081	43,175	44,470	45,760	47,087	48,452	49,858	51,303	52,791	54,322	55,898	57,519	59,187	60,903	62,669
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552		8,757	8,950	9,183	9,458	9,732	10,015	10,305	10,604	10,911	11,228	11,553	11,888	12,233	12,588	12,953	13,329
Road repairs & maintenance - regular	4,839	7,092	2,438	5,515	20,140	7,280	5,599		5,733	5,860	6,012	6,192	6,372	6,557	6,747	6,942	7,144	7,351	7,564	7,783	8,009	8,241	8,480	8,726
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459		12,758	13,039	13,378	13,779	14,179	14,590	15,013	15,448	15,896	16,357	16,832	17,320	17,822	18,339	18,871	19,418
Depreciation	177,220	101,072	101,111	101,203	101,472	103,426	103,160		103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Total Direct Costs	1,135,627	2,055,578	1,496,012	1,561,009	1,396,982	3,726,788	1,589,924		1,956,340	1,593,584	2,971,071	1,678,210	2,196,849	1,770,888	3,321,627	1,869,019	2,450,487	1,972,923	2,397,883	2,453,678	3,058,029	2,570,171	4,368,320	2,693,518
OVERHEADS																								
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570		183,880	193,564	198,597	204,555	210,487	216,591	222,872	229,336	235,986	242,830	249,872	257,118	264,575	272,247	280,143	288,267
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269		34,067	34,817	35,722	36,794	37,861	38,959	40,089	41,251	42,447	43,678	44,945	46,249	47,590	48,970	50,390	51,851
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721		143,074	150,609	154,525	159,161	163,777	168,526	173,413	178,442	183,617	188,942	194,421	200,060	205,861	211,831	217,975	224,296
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714		127,707	130,517	133,910	137,927	141,927	146,043	150,278	154,637	159,121	163,736	168,484	173,370	178,398	183,571	188,895	194,373
Management charges	158,701	171,803	166,795	194,792	130,674	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238		108,788	111,181	114,072	117,494	120,901	124,407	128,015	131,728	135,548	139,479	143,523	147,686	151,969	156,376	160,911	165,577
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714		6,875	7,026	7,209	7,425	7,641	7,862	8,090	8,325	8,566	8,815	9,070	9,333	9,604	9,883	10,169	10,464
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38		39	40	41	42	43	44	46	47	48	50	51	53	54	56	58	59
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248		5,374	5,492	5,635	5,804	5,972	6,146	6,324	6,507	6,696	6,890	7,090	7,295	7,507	7,725	7,949	8,179
Advertising and Public Relations	45	45	1,713	45	330	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635		3,722	3,804	3,903	4,020	4,137	4,257	4,380	4,507	4,638	4,772	4,911	5,053	5,200	5,350	5,506	5,665
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819		10,055	10,276	10,543	10,859	11,174	11,498	11,832	12,175	12,528	12,891	13,265	13,650	14,046	14,453	14,872	15,303
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046		39,983	40,863	41,925	43,183	44,435	45,724	47,050	48,414	49,818	51,263	52,750	54,279	55,853	57,473	59,140	60,855
Audit	11,000	11,325	11,665	11,985	12,880	21,135	34,450		35,277	36,053	36,990	38,100	39,205	40,342	41,512	42,716	43,954	45,229	46,541	47,890	49,279	50,708	52,179	53,692
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795		44,846	45,833	47,024	48,435	49,840	51,285	52,772	54,303	55,877	57,498	59,165	60,881	62,647	64,463	66,333	68,257
Bad & Doubtful Debts	-	-	-	-	-	-	49,758		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accommodation and subsistence	-	-	-	-	799	4,694	2,225		2,278	2,329	2,389	2,461	2,532	2,606	2,681	2,759	2,839	2,921	3,006	3,093	3,183	3,275	3,370	3,468
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403		69,021	70,539	72,373	74,544	76,706	78,931	81,220	83,575	85,999	88,493	91,059	93,700	96,417	99,213	102,090	105,051
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643		814,986	842,943	864,859	890,805	916,638	943,221	970,574	998,721	1,027,684	1,057,487	1,088,154	1,119,710	1,152,182	1,185,595	1,219,977	1,255,357
Other income	42,854	82,264	1,269,662	103,143	38,634	1,181,985	26,907		27,553	28,159	28,891	29,758	30,621	31,509	32,423	33,363	34,330	35,326	36,350	37,404	38,489	39,605	40,754	41,936
Operating profit	1,483,243	(14,981)	879,151	(188,451)	1,022,622	(765,836)	835,695		744,918	1,873,936	286,715	1,957,025	1,458,639	2,053,193	254,523	2,097,089	1,475,940	2,134,033	1,784,769	1,797,345	1,155,677	1,836,191	(256,548)	1,870,992
Interest payable (inc loan finance)	-	-	-	-	-	-	(3,046)		-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Current account Interest received (paid)	125	20,397	25,921	30,985	37,656	44,687	73,492		120,815	114,232	136,712	144,220	180,918	213,047	252,621	252,428	274,315	293,110	40,372	48,575	65,997	83,555	101,227	91,032
Profit Before Tax	1,483,368	5,416	905,072	(157,466)	1,060,278	(721,149)	906,141		865,733	1,988,168	423,427	2,101,245	1,639,557											

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 3.1

Forecast Year end Balance Sheet for 16 years to 31st March 2040 (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	6,977	7,264	7,016	7,774	7,849	8,347	8,462	8,984	8,784	8,984	8,984	8,984	8,784	8,984	8,383	8,984
Stocks & Debtors	610,525	603,219	603,506	603,258	604,016	604,091	604,589	604,704	605,226	605,026	605,226	605,226	605,226	605,026	605,226	604,625	605,226
Cash at Bank	4,027,158	4,569,292	5,646,418	5,463,991	6,659,146	7,624,561	8,970,825	9,073,698	10,570,019	11,661,126	595,083	1,954,164	2,825,384	3,180,366	3,997,427	2,700,296	3,314,126
	4,637,683	5,172,512	6,249,924	6,067,249	7,263,161	8,228,653	9,575,414	9,678,403	11,175,246	12,266,152	1,200,309	2,559,391	3,430,611	3,785,392	4,602,654	3,304,921	3,919,353
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	87,966	89,749	91,583	93,472	95,414	97,413
Corporation Tax	80,589	305,580	301,234	171,150	187,395	332,804	356,669	254,215	279,052	405,534	260,983	-	(100,518)	-	-	-	-
	570,505	378,664	375,343	246,498	264,209	411,078	436,445	335,537	361,964	490,082	347,215	87,966	(10,769)	91,583	93,472	95,414	97,413
Net Current Assets	4,067,178	4,793,848	5,874,581	5,820,750	6,998,952	7,817,575	9,138,969	9,342,866	10,813,282	11,776,070	853,094	2,471,425	3,441,380	3,693,808	4,509,182	3,209,507	3,821,939
Total Assets Less Current Liabilities	17,130,596	17,754,106	18,731,679	18,574,688	19,649,730	20,365,193	21,583,427	21,684,164	23,051,420	23,911,048	30,428,643	31,573,078	32,069,137	31,847,669	32,189,146	30,415,575	30,554,111
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	17,158,264	18,135,837	17,978,846	19,053,888	19,769,351	20,987,585	21,088,322	22,455,578	23,315,206	24,867,779	26,124,369	26,741,218	26,649,842	27,131,428	25,508,754	25,809,807
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	5,205,851	6,269,811	6,199,207	7,360,636	8,162,486	9,467,107	9,654,231	11,107,874	12,053,889	13,692,849	15,035,826	15,739,062	15,734,073	16,302,046	14,765,759	15,153,199
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	17,158,264	18,135,837	17,978,846	19,053,888	19,769,351	20,987,585	21,088,322	22,455,578	23,315,206	24,867,779	26,124,369	26,741,218	26,649,842	27,131,428	25,508,754	25,809,807

The Bournemouth-Swanage Motor Road & Ferry Co. Inc. Appendix 3.2 Forecast Year End Balance Sheets for the 16 Years to 31 March 2040 (Assuming an Increase in Toll Charges)																	
	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Fixed Assets	13,063,418	12,960,258	12,857,098	12,753,938	12,650,778	12,547,618	12,444,458	12,341,298	12,238,138	12,134,978	29,575,549	29,101,653	28,627,757	28,153,861	27,679,964	27,206,068	26,732,172
Current Assets																	
Other debtors	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101	140,101
Stocks	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141	456,141
Trade debtors	14,283	6,977	8,565	8,188	8,993	9,083	9,472	9,029	9,863	9,840	10,258	10,469	10,667	10,655	11,105	10,582	11,556
Stocks & Debtors	610,525	603,219	604,807	604,430	605,235	605,325	605,714	605,271	606,105	606,082	606,500	606,711	606,909	606,897	607,347	606,824	607,798
Cash at Bank	4,027,158	4,569,292	6,214,175	6,555,442	8,223,542	9,683,965	11,482,753	11,473,980	12,468,872	13,323,189	1,835,073	2,207,949	2,999,881	3,797,958	4,601,235	4,137,837	4,948,800
	4,637,683	5,172,512	6,818,982	7,159,872	8,828,776	10,289,290	12,088,466	12,079,250	13,074,977	13,929,271	2,441,574	2,814,660	3,606,789	4,404,854	5,208,581	4,744,661	5,556,598
Creditors: Amounts Falling Due Within One Year																	
Trade Creditors and Accruals	489,916	73,084	74,110	75,348	76,814	78,274	79,776	81,322	82,912	84,549	86,233	91,583	93,472	95,414	97,413	26,479	26,479
Corporation Tax	80,589	305,580	382,528	327,240	341,374	493,390	514,015	372,463	382,873	538,262	416,387	-	-	-	-	-	-
	570,505	378,664	456,637	402,588	418,188	571,664	593,791	453,785	465,785	622,810	502,620	91,583	93,472	95,414	97,413	26,479	26,479
Net Current Assets	4,067,178	4,793,848	6,362,344	6,757,284	8,410,588	9,717,626	11,494,676	11,625,466	12,609,192	13,306,461	1,938,954	2,723,077	3,513,318	4,309,440	5,111,168	4,718,182	5,530,119
Total Assets Less Current Liabilities	17,130,596	17,754,106	19,219,442	19,511,222	21,061,366	22,265,244	23,939,134	23,966,764	24,847,330	25,441,439	31,514,503	31,824,730	32,141,075	32,463,301	32,791,132	31,924,250	32,262,291
Creditors: Amounts Falling Due After One Year																	
Other creditors	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)	(34,978)
Loan finance	-	-	-	-	-	-	-	-	-	-	(4,965,022)	(4,852,867)	(4,732,077)	(4,601,985)	(4,461,876)	(4,310,979)	(4,148,462)
Provisions For Liabilities & Charges																	
Deferred Tax	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)	(560,864)
	16,534,754	17,158,264	18,623,600	18,915,380	20,465,524	21,669,402	23,343,292	23,370,922	24,251,488	24,845,597	25,953,639	26,376,021	26,813,156	27,265,474	27,733,414	27,017,429	27,517,987
Capital & Reserves																	
Called Up Share Capital	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Revaluation Reserve	11,977,800	11,891,413	11,805,026	11,718,639	11,632,252	11,545,865	11,459,478	11,373,091	11,286,704	11,200,317	11,113,930	11,027,543	10,941,156	10,854,769	10,768,382	10,681,995	10,595,608
Ferry Replacement Reserve	4,495,954	5,205,851	6,757,574	7,135,741	8,772,272	10,062,537	11,822,814	11,936,831	12,903,784	13,584,280	14,778,709	15,287,478	15,811,000	16,349,705	16,904,032	16,274,434	16,861,379
Profit & Loss Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholders' Funds	16,534,754	17,158,264	18,623,600	18,915,380	20,465,524	21,669,402	23,343,292	23,370,922	24,251,488	24,845,597	25,953,639	26,376,021	26,813,156	27,265,474	27,733,414	27,017,429	27,517,987

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 4.1

Forecast dividends and returns on investment (in line with increases approved under The 2021 Order)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	17,158,264	18,135,837	17,978,846	19,053,888	19,769,351	20,987,585	21,088,322	22,455,578	23,315,206	24,867,779	26,124,369	26,741,218	26,649,842	27,131,428	25,508,754	25,809,807
Turnover	3,488,691	3,631,952	3,507,884	3,886,825	3,924,702	4,173,557	4,231,124	4,492,149	4,391,858	4,492,149	4,492,148	4,492,149	4,391,858	4,492,149	4,191,279	4,492,149
Profit after tax	623,510	977,573	(156,990)	1,075,041	715,463	1,218,234	100,737	1,367,256	859,628	1,552,573	1,256,589	616,849	(91,376)	481,586	(1,622,674)	301,053
Transfer to Ferry Replacement Reserve	(623,510)	(977,573)	156,990	(1,075,041)	(715,463)	(1,218,234)	(100,737)	(1,367,256)	(859,628)	(1,552,573)	(1,256,589)	(616,849)	91,376	(481,586)	1,622,674	(301,053)
Profit available for distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 4.2

Forecast dividends and returns on investment (assuming this application is approved).

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Forecast:																
Total net assets	17,158,264	18,623,600	18,915,380	20,465,524	21,669,402	23,343,292	23,370,922	24,251,488	24,845,597	25,953,639	26,376,021	26,813,156	27,265,474	27,733,414	27,017,429	27,517,987
Turnover	3,488,691	4,282,304	4,093,754	4,496,283	4,541,505	4,735,793	4,514,302	4,931,466	4,919,781	5,129,117	5,234,455	5,333,329	5,327,399	5,552,352	5,290,995	5,777,931
Profit after tax	623,510	1,465,336	291,780	1,550,144	1,203,878	1,673,890	354,568	1,736,348	1,286,901	2,057,723	1,211,017	1,218,237	743,078	1,261,029	-299,507	1,285,629
Transfer to Ferry Replacement Reserve	(623,510)	(1,465,336)	(291,780)	(1,550,144)	(1,203,878)	(1,673,890)	(27,630)	(880,567)	(594,108)	(1,108,043)	(422,381)	(437,135)	(452,318)	(467,940)	715,984	(500,557)
Profit available for distribution	-	-	-	-	-	-	326,938	855,781	692,793	949,680	788,636	781,101	290,760	793,089	416,477	785,071
Return on Investment	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	3.5%	2.8%	3.7%	3.0%	2.9%	1.1%	2.9%	1.5%	2.9%
Forecast dividends	0	0	0	0	0	0	326,938	855,781	692,793	949,680	788,636	781,101	290,760	793,089	416,477	785,071
Forecast dividends as a %age of total NA's	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	3.5%	2.8%	3.7%	3.0%	2.9%	1.1%	2.9%	1.5%	2.9%
Forecast dividends as a %age of turnover	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	17.4%	14.1%	18.5%	15.1%	14.6%	5.5%	14.3%	7.9%	13.6%

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 5
Summary of costs for six years for 2019 to 2024 (excluding depreciation)

	2018	2019	2020	2021	2022	2023	2024	Average annual increase / (decrease) (%)	Total increase / (decrease) from 2018 to 2024 (%)
	£	£	£	£	£	£	£		
DIRECT COSTS									
Ferry Harbour Dues	1,272	1,272	1,272	1,272	1,454	1,454	1,454	2.3%	14.3%
Direct Wages	710,613	724,079	706,023	756,974	805,008	906,090	1,000,173	4.1%	40.7%
Staff recruitment costs	-	-	-	7,650	4,304	-	-		
Ferry repairs & maintenance - day to day	112,230	155,000	544,077	165,000	212,761	175,000	236,557	7.7%	110.8%
Ferry consumable stores	74,888	77,883	61,491	68,231	106,041	117,017	117,699	7.7%	57.2%
Ferry insurance	35,201	27,770	32,792	105,532	110,561	89,586	104,271	16.8%	196.2%
Slipways repairs & maintenance - regular	7,622	21,499	17,877	11,065	15,971	21,520	8,552	18.9%	12.2%
Road repairs & maintenance	4,839	7,092	2,438	5,515	20,140	7,280	5,599	7.0%	15.7%
Buildings repairs & maintenance	11,742	7,544	28,931	16,982	19,270	32,352	12,459	18.4%	6.1%
Total Direct Costs	958,407	1,022,139	1,394,901	1,138,221	1,295,510	1,350,299	1,486,764	5.9%	55.1%
OVERHEADS									
Wages & salaries	114,783	121,452	61,128	106,212	148,063	152,907	179,570	4.9%	56.4%
Staff pension costs	25,712	30,121	33,793	33,498	34,699	31,327	33,269	3.3%	29.4%
Directors remuneration	-	-	59,876	25,100	55,300	132,814	139,721		
Rates	144,825	65,933	84,169	(7,110)	89,931	89,925	124,714	(7.6%)	(13.9%)
Management charges	158,701	171,803	166,795	194,792	130,674	-	-	(100.0%)	(100.0%)
Insurance	11,836	20,807	24,502	27,999	47,886	60,225	106,238	31.1%	797.6%
Light & heat	6,079	5,133	4,645	9,853	7,257	5,509	6,714	(1.6%)	10.4%
Tickets	5,580	2,321	10,194	(2,534)	5,444	594	38	(31.2%)	(99.3%)
Printing, postage and stationery	5,762	4,195	5,555	4,948	6,321	9,112	5,248	7.9%	(8.9%)
Advertising	45	45	1,713	45	330	-	-	(100.0%)	(100.0%)
Telephone	4,266	3,297	4,206	5,090	6,461	3,608	3,635	(2.8%)	(14.8%)
Motor running expenses	5,912	16,413	24,499	6,624	13,871	13,447	9,819	14.7%	66.1%
Legal and professional fees	17,269	49,470	53,775	118,333	25,377	25,701	109,046	6.9%	531.5%
Audit fees	11,000	11,325	11,665	11,985	12,880	21,135	34,450	11.5%	213.2%
Bank charges	14,457	15,699	19,714	19,289	32,892	27,401	43,795	11.2%	202.9%
Bad & Doubtful debts	-	-	-	-	-	-	49,758		
Accomodation and subsistence	-	-	-	-	799	4,694	2,225		
Sundry expenses	28,619	32,096	31,167	32,334	50,543	43,209	67,403	7.1%	135.5%
Total Overheads	554,846	550,110	597,396	586,458	668,728	621,608	915,643	1.9%	65.0%
Grand Total	1,513,253	1,572,249	1,992,297	1,724,679	1,964,238	1,971,907	2,402,407	4.5%	58.8%

Income workings for 17 years to 31st March 2040 (assuming this application is approved)

Inflation rate	CPI

Proposed Tolls		Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £	Proposed toll	Proposed discount £
Effective from:		1/4/24		1/4/25		1/4/26		1/4/27	1/4/28	1/4/29		1/4/30		1/4/31		1/4/32		1/4/33		1/4/34		1/4/35		1/4/36		1/4/37		1/4/38		1/4/39	
Class 1	Pedestrian	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29	
Class 2	Pedal or Motor Cycle	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29	
Class 3	Passenger vehicle < 16 persons (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04	
Class 4	Passenger vehicle > 16 persons (Coaches)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		16.08		16.40	
Class 5	Goods vehicle < 3,500kgs (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04	
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		16.08		16.40	
Class 7	Book of 50 tickets for Pedestrians	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	82.08	24.00%	83.60	24.00%	85.12	24.00%
Class 7b	Book of 100 tickets for Pedestrians	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%
Class 9	Book of 50 tickets for cycles	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	82.08	24.00%	83.60	24.00%	85.12	24.00%
Class 9b	Book of 100 tickets for cycles	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%
Class 10	Book of 10 tickets for Motor Cars	38.16	28.00%	40.05	36.03%	42.61	33.00%	45.88	28.98%	50.08	24.00%	51.07	24.00%	52.14	24.00%	53.20	24.00%	54.26	24.00%	55.33	24.00%	56.47	24.00%	57.53	24.00%	58.75	24.00%	59.89	24.00%	61.10	24.00%
Class 11	Book of 50 tickets for Motor Cars	180.20	32.00%	189.14	39.57%	201.40	36.67%	217.05	32.80%	237.24	28.00%	241.92	28.00%	246.96	28.00%	252.00	28.00%	257.04	28.00%	262.08	28.00%	267.48	28.00%	272.52	28.00%	278.28	28.00%	283.68	28.00%	289.44	28.00%
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.99%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%
Class 14	Book of 10 tickets for Buses & Coaches	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.99%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%
Class 15	Book of 50 tickets for Buses & Coaches	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%
Toll Road				6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04	

Income by Class		Annualised Income (NON refit year)		Category designation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2025 Traffic Volume		Y/E 31/3/24			£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	
Class 1	Pedestrian	75,471	75,471	A	75,471	132,074	133,583	135,847	138,866	141,885	144,149	147,168	150,187	153,206	156,225	159,244	163,018	166,037	169,056	172,830
Class 2	Pedal or Motor Cycle	98,803	98,803	B	98,803	172,905	174,881	177,845	181,797	185,749	188,713	192,665	196,617	200,569	204,521	208,473	213,413	217,365	221,317	226,257
Class 3	Passenger vehicle < 16 persons (Cars)	467,928	2,433,225	F	2,480,018	2,929,229	2,976,022	3,022,815	3,083,646	3,144,477	3,209,987	3,275,497	3,341,007	3,406,517	3,476,706	3,542,216	3,617,085	3,687,274	3,762,143	3,837,012
Class 4	Passenger vehicle > 16 persons (Coaches)	360	3,744	C	3,816	4,507	4,579	4,655	4,749	4,843	4,940	5,041	5,142	5,243	5,351	5,455	5,567	5,675	5,790	5,905
Class 5	Goods vehicle < 3,500kgs (Cars)	2,458	12,784	F	13,030	15,390	15,636	15,882	16,202	16,522	16,866	17,210	17,554	17,898	18,267	18,611	19,004	19,373	19,766	20,159
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10,355	107,696	G	109,767	129,649	131,720	133,895	136,587	139,279	142,075	144,974	147,873	150,772	153,879	156,882	160,092	163,199	166,513	169,827
Class 7	Book of 50 tickets for Pedestrians	1,111	1,000	A	1,000	1,105	1,228	1,375	1,554	1,588	1,613	1,647	1,681	1,715	1,749	1,783	1,825	1,859	1,893	1,935
Class 7b	Book of 100 tickets for Pedestrians	2,600	2,210	A	2,210	2,442	2,715	3,044	3,444	3,519	3,575	3,650	3,725	3,800	3,875	3,950	4,044	4,119	4,194	4,288
Class 9	Book of 50 tickets for cycles	7,778	7,000	B	7,000	7,734	8,593	9,624	10,875	11,111	11,288	11,524	11,760	11,996	12,232	12,468	12,763	12,999	13,235	13,530
Class 9b	Book of 100 tickets for cycles	8,616	7,324	B	7,324	8,094	9,000	10,090	11,415	11,663	11,849	12,097	12,345	12,593	12,841	13,089	13,399	13,647	13,895	14,205
Class 10	Book of 10 tickets for Motor Cars	83,747	313,550	F	319,580	335,366	356,847	384,211	419,406	427,697	436,658	445,535	454,412	463,373	472,920	481,797	492,014	501,561	511,694	521,911
Class 11	Book of 50 tickets for Motor Cars	69,368	245,287	F	250,004	262,411	279,417	301,126	329,141	335,634	342,626	349,618	356,610	363,602	371,094	378,086	386,077	393,569	401,560	409,551
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	58	437	G	445	467	497	535	584	596	608	620	632	644	657	670	684	697	711	725
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	792	5,599	G	5,707	5,990	6,378	6,878	7,519	7,667	7,821	7,981	8,141	8,301	8,472	8,637	8,814	8,985	9,167	9,349
Class 14	Book of 10 tickets for Buses & Coaches	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Class 15	Book of 50 tickets for Buses & Coaches	32	225	C	229	240	256	276	302	308	314	320	326	332	339	346	353	360	367	374
Toll Road																				
					3,374,404	4,058,936	4,153,505	4,261,071	4,400,126	4,487,643	4,579,335	4,672,948	4,766,561	4,860,258	4,960,055	5,053,782	5,161,539	5,261,336	5,367,230	5,475,099

Income By Category		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Class A (Foot passenger)	79,182	78,681	135,621	137,526	140,266	143,864	146,992	149,337	152,465	155,593	158,721	161,849	164,977	168,887	172,015	175,143	179,053
Class B/C (Bikes & motorcycles)	115,197	113,127	188,733	192,474	197,559	204,087	208,523	211,850	216,286	220,722	225,158	229,594	234,030	239,575	244,011	248,447	253,992
Class F (Car)	623,502	3,062,632	3,542,396	3,627,922	3,724,034	3,848,395	3,924,330	4,006,137	4,087,860	4,169,583	4,251,390	4,338,987	4,420,710	4,514,180	4,601,777	4,695,163	4,788,633
Class G (Truck)	11,205	115,919	136,106	138,595	141,308	144,690	147,542	150,504	153,575	156,646	159,717	163,008	166,189	169,590	172,881	176,391	179,901
Coach & Bus	392	4,045	4,747	4,835	4,931	5,051	5,151	5,254	5,361	5,468	5,575	5,690	5,801	5,920	6,035	6,157	6,279
Toll Road		-	51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241
		3,374,404	4,058,936	4,153,505	4,261,071	4,400,126	4,487,643	4,579,335	4,672,948	4,766,561	4,860,258	4,960,055	5,053,782	5,161,539	5,261,336	5,367,230	5,475,099

Income By Category (based on average traffic volumes for 2018 and 2024)																	
Class A (Foot passenger)	76,290	131,500	133,348	136,004	139,493	142,526	144,800	147,833	150,866	153,899	156,932	159,965	163,756	166,789	169,822	173,613	
Class B (Bikes & motorcycles)	114,908	191,704	195,504	200,669	205,185	210,096	215,347	220,909	226,197	231,347	237,115	243,347	249,853	256,359	262,359	267,991	
Class F (Cat)	3,278,868	3,792,506	3,884,071	3,986,969	4,101,406	4,220,110	4,342,983	4,476,981	4,613,958	4,755,158	4,892,933	5,036,684	5,176,733	5,323,340	5,466,684	5,615,973	
Class G (Truck)	94,251	110,665	112,688	114,894	117,644	119,963	122,371	124,868	126,957	129,862	132,548	135,124	137,890	140,566	143,419	145,793	
Coach & Bus	3,917	4,596	4,681	4,774	4,891	4,987	5,087	5,191	5,294	5,398	5,509	5,617	5,732	5,843	5,961	6,080	
Toll Road	-	51,333	52,153	52,973	54,039	55,105	56,253	57,401	58,549	59,697	60,927	62,075	63,387	64,617	65,929	67,241	
	3,568,235	4,282,305	4,382,445	4,496,284	4,643,477	4,735,794	4,832,686	4,931,466	5,030,247	5,129,117	5,234,455	5,333,329	5,447,014	5,552,352	5,664,154	5,777,931	

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.

Appendix 6.1

Cash flow analysis (in line with increases approved under The 2021 Order)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit/(Loss) [Profit Before Interest & Tax]	835,695	744,918	1,223,584	(299,155)	1,347,568	841,836	1,490,957	(28,655)	1,657,772	948,017	1,497,065	1,042,462	956,165	220,136	775,988	(1,356,264)	585,210
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	7,306	(287)	248	(758)	(76)	(498)	(115)	(522)	201	(201)	0	(0)	201	(201)	602	(602)
Increase (Decrease) in creditors due within one year	(652,957)	(191,841)	(3,321)	(128,845)	17,711	146,869	25,367	(100,908)	26,427	128,118	(142,867)	(259,250)	(98,735)	102,353	1,888	1,943	1,999
Net Cash Inflow From Operating Activities	1,305,975	663,543	1,323,137	(324,592)	1,467,681	1,091,789	1,618,987	(26,518)	1,786,838	1,179,496	1,457,157	1,257,108	1,331,326	796,586	1,251,572	(879,824)	1,060,504
Interest received	73,492	120,815	114,232	124,221	120,208	146,501	167,740	197,358	199,621	232,540	256,545	13,092	42,992	62,158	69,968	87,943	59,407
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)
Dividend paid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corporation tax paid	(175,766)	(242,223)	(360,244)	17,944	(392,734)	(272,874)	(440,464)	(67,966)	(490,138)	(320,929)	(201,036)	201,036	-	-	-	-	-
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	542,134	1,077,126	(182,427)	1,195,155	965,416	1,346,263	102,874	1,496,321	1,091,107	(11,066,044)	1,359,081	871,220	354,982	817,061	(1,297,131)	613,830
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,569,292	5,646,418	5,463,991	6,659,146	7,624,561	8,970,825	9,073,698	10,570,019	11,661,126	595,083	1,954,164	2,825,384	3,180,366	3,997,427	2,700,296
Closing Cash at Bank & In Hand	4,027,158	4,569,292	5,646,418	5,463,991	6,659,146	7,624,561	8,970,825	9,073,698	10,570,019	11,661,126	595,083	1,954,164	2,825,384	3,180,366	3,997,427	2,700,296	3,314,126

The Bournemouth-Swanage Motor Road & Ferry Co. Inc.
Appendix 6.2
Cash flow analysis (assuming this application is approved)

	2024 £	2025 £	2026 £	2027 £	2028 £	2029 £	2030 £	2031 £	2032 £	2033 £	2034 £	2035 £	2036 £	2037 £	2038 £	2039 £	2040 £
Operating Profit [Profit Before Interest & Tax]	835,695	744,918	1,873,936	286,715	1,957,025	1,458,639	2,053,193	254,523	2,097,089	1,475,940	2,134,033	1,784,769	1,797,345	1,155,677	1,836,191	(256,548)	1,870,992
Depreciation of tangible assets	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	103,160	473,896	473,896	473,896	473,896	473,896	473,896
Decrease (Increase) in stocks & debtors	1,020,077	7,306	(1,587)	377	(805)	(90)	(389)	443	(834)	23	(419)	(211)	(198)	12	(450)	523	(974)
Increase (Decrease) in creditors due within one year	(652,957)	(191,841)	77,973	(54,050)	15,601	153,476	22,127	(140,006)	12,000	157,026	(120,190)	(411,036)	1,888	1,943	1,999	(70,934)	-
Net Cash Inflow From Operating Activities	1,305,975	663,543	2,053,482	336,202	2,074,981	1,715,184	2,178,091	218,120	2,211,415	1,736,149	2,116,584	1,847,418	2,272,931	1,631,528	2,311,637	146,936	2,343,915
Interest received	73,492	120,815	114,232	136,712	144,220	180,918	213,047	252,621	252,428	274,315	293,110	40,372	48,575	65,997	83,555	101,227	91,032
Interest paid	(3,046)	-	-	-	-	-	-	-	-	-	-	(382,307)	(373,671)	(364,370)	(354,353)	(343,564)	(331,945)
Dividend paid	-	-	-	-	-	-	-	(326,938)	(855,781)	(692,793)	(949,680)	(788,636)	(781,101)	(290,760)	(793,089)	(416,477)	(785,071)
Corporation tax paid	(175,766)	(242,223)	(522,832)	(131,647)	(551,101)	(435,679)	(592,350)	(152,576)	(613,169)	(463,354)	(369,420)	(231,816)	(254,012)	(114,227)	(304,364)	199,378	(344,451)
Loan finance capital - advanced (repaid)	-	-	-	-	-	-	-	-	-	-	4,965,022	(112,155)	(120,791)	(130,092)	(140,109)	(150,898)	(162,517)
Payments to acquire tangible fixed assets	-	-	-	-	-	-	-	-	-	-	(17,543,731)	-	-	-	-	-	-
Proceeds from disposal of tangible fixed assets	32,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Cash Inflow (Outflow)	1,233,155	542,134	1,644,883	341,267	1,668,100	1,460,423	1,798,788	(8,773)	994,892	854,317	(11,488,116)	372,876	791,931	798,077	803,277	(463,398)	810,963
Opening Cash at Bank & In Hand	2,794,003	4,027,158	4,569,292	6,214,175	6,555,442	8,223,542	9,683,965	11,482,753	11,473,980	12,468,872	13,323,189	1,835,073	2,207,949	2,999,881	3,797,958	4,601,235	4,137,837
Closing Cash at Bank & In Hand	4,027,158	4,569,292	6,214,175	6,555,442	8,223,542	9,683,965	11,482,753	11,473,980	12,468,872	13,323,189	1,835,073	2,207,949	2,999,881	3,797,958	4,601,235	4,137,837	4,948,800

IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON THE BOURNEMOUTH SWANAGE MOTOR ROAD & FERRY LINK

POSITION STATEMENT AND RESPONSE – NOVEMBER 2024

PREPARED BY MICHAEL KEAN, CHAIRMAN TO THE BOURNEMOUTH SWANAGE MOTOR ROAD AND FERRY COMPANY

Introduction

1. This submission has three sections:-
 - Section A provides information to the Inspector setting out why the Ferry Company has made this Application.
 - Section B sets out the proposal by the Ferry Company to delay implementation of the base tolls by 12 months and to increase the discounts on book tickets and Sandbanks Ferry Ticket (SFTC) passes (“Bulk Purchases”).
 - Section C addresses some of the non-financial issues that have been raised by the Consortium and other objectors in relation to the Ferry Company’s Application. The core financial issues raised by the Consortium have been responded to by Mr Thomas in his statement.

Section A: Reasons For Making The Application

2. I am the Chairman of the Ferry Company.
3. The Ferry Company last made an Application to the Secretary of State to revise its tolls in February 2020. That Application was heard at a Public Inquiry on 16th November 2020 and the resulting Order revising the tolls came into force later in 2021.
4. The 2021 Order included a provision for yearly incremental toll charge increases up to 3%. This was based on the Ferry Company financial projections and an assumption which has now been shown to be incorrect that RPI would average 3% per annum.
5. The Ferry Company had hoped that the last Public Inquiry and 2021 Order would mean that the financial future of the ferry was assured, and it would not be necessary to make any further Applications for at least another ten years, until April 2032.
6. The Ferry Company would like to avoid making repeat Applications. They are expensive, the last one cost in the order of £100,000 and understandably the whole process damages our relationship with local stakeholders and customers.
7. The reason this Application has been made is because, as set out in the explanatory note, a number of unforeseen issues have arisen
 - a. RPI which, based on previous financial forecasts, was assumed to be no more than 3%, increased to significantly beyond 3% between May 2021 and May 2024. RPI peaked at 14% in November 2022 shortly after delivery of the 2022 mini budget. In short, we did not anticipate the recent “cost-push” high inflation in

the UK which was driven by a number of national and international events. The 2020 Application was made, after months of preparation, in February 2020 a month before the first covid lock down.

The Ferry Company finances are particularly vulnerable to inflation as our costs increased significantly above the national levels of inflation as some of our costs, particularly fuel and maintenance parts often rise higher than RPI. Notably the cost of fuel has been increased since the invasion of Ukraine, and a shortage of workers post pandemic has driven up wages and so employment costs.

- b. On 1st May 2023, the Corporation Tax main rate for profits above £250,000 per annum was increased from 19% to 25%.

This additional Corporation Tax reduced the available balance that could be paid into the Ferry Replacement Reserve (“FRR”). This directly led to a shortfall in the FRR..

- c. The Ferry Company was badly affected by two poor summers because of bad weather in July and August in both 2022 and 2023. The extent to which the Ferry Company’s financial health is vulnerable to the unpredictable weather also underscores the high risk of investing in the Ferry Company.
- d. To a certain extent, we did not anticipate how long it would take from Application to the implementation of the 2021 Order. This meant that the fare increases could not be implemented, as intended at the start of 2021/2022 financial year.

8. The Ferry Company is therefore making this Application to do the following.

- i) We would like to replace the assumed RPI figure of 3% with a mechanism which initially uses historic RPI and then, going forward, the actual CPI figures. This will mean that any increases in fares will more closely relate to increases in expenses, and so mean that the statutory test (neither substantially less nor substantially more than adequate to meet costs and a reasonable return).
- ii) Historically, the Ferry Company offered discounts of 10% and 15% on purchases of 10 and 50 tickets for vehicles respectively. As part of the consultation process, immediately prior to the last Inquiry, the Company proposed to increase those discounts from the historic 10 and 15% up to 28% and 32% respectively. It was not appreciated that this significant increased reduction would so dramatically change passenger purchase patterns, with far fewer passengers paying ‘full fare’ tickets. As such the projections presented to the Inspector last time had not factored in this change in behaviour, and resultant drop in income.

Initially, as part of this Application, the Ferry Company proposed reducing those discounts so that they would be closer to the historic figures. The Company proposed reducing the discount gradually, over four years, back to 15% and 20%, still remaining higher than the historic 10% and 15% respectively.

This particular part of the Application has however resulted in considerable local opposition. More than, perhaps, was anticipated given that the discounts, while being reduced were still remaining above their historic levels.

For that reason, and as set out later in this Statement, the Ferry Company has calculated as a concession the effect of not introducing these reductions to the discounts in full. This is proposed by the Ferry Company in response to the concerns.

- iii) The Ferry Company proposes the reintroduction of the historic motor road toll.

The Ferry Company is permitted to charge a toll (as specified in any relevant order) for use of the motor road under section 78 of the Bournemouth-Swanage Motor road and Ferry Act 1923. A road toll was charged and collected from inception of the service in the 1920's until the early 1990's.

The road toll will not increase the charges paid by ferry users as the road toll will not be paid by ferry users.

The road toll will only be paid by those users of the motor road who remain on the road for more than 30 minutes.

The motor road's maintenance forms part of the expenses of the Ferry Company. Currently that expense is borne only by those who travel on the ferry, through the cost of their fare. By contrast those who use the road but do not travel on the ferry use the road for free. In effect the ferry users are subsidising those people who use the road but not the ferry. This is plainly unfair, but also means that those who are using the ferry road for leisure access only are being subsidised by those who are using the ferry road to access a vital transport link, of importance to the whole community.

We are proposing that the road toll is maintained at a level equivalent to the ferry toll for a car. No charge will be made for pedestrians or cyclists. The charge, as set out in more detail below, will only be charged for vehicles who remain on the road for more than 30 minutes. It will not be charged on anybody using the road, to travel to premises, other businesses or car parks.

The road toll will be set initially at £6.26, equivalent to a car cash toll.

The road toll is comparable with local parking charges for example;

<u>Owner</u>	<u>Location</u>	<u>2 hours</u>	<u>4 hours</u>	<u>All day</u>
National Trust	Studland	£5.00	£8.00	£12.00
BCP Council	Sandbanks	£5.70	£12.40	£25.90

9. The reason we have had to make this Application is the Ferry Company is facing significant and ongoing losses. In the financial year to 31st March 2023, the Ferry Company made a loss before taxation of £721,149 and a loss after taxation of £438,087.

10. In the financial year to 31st March 2024, the Ferry Company made a profit before taxation of £906,141 and a profit after taxation of £537,205. This is insufficient to make up for the losses in the previous year, after providing a sufficient contribution to the Ferry Replacement Reserve. The latest group financial statements are at appendix A.
11. If this lack of recent profitability is not made up, then there is a forecasted shortfall to the FRR, once adjusted for corrected traffic volumes, of £1,949,276 in in 2034.
12. Again, as set out in the explanatory memorandum, if the ferry tolls are not amended, then it is not thought that any dividend will be payable through to 2032, and the investors will not receive any return on their investment in the forecast period.
13. These losses will continue and in particular, there will be major losses in 2027 and 2031, the major refit years.
14. If however these amendments are agreed, then it is anticipated that:-
15. The Ferry Company will make a profit in the years prior to the introduction of the new ferry, including the major refit years.
16. By early 2030 there will be sufficient funds in the FRR which together with the Company's borrowings will be enough to afford a new ferry.
17. The Company will be able to afford its first dividend, after 12 years, in 2030.
18. I have read the projections of the Company's accountants, and I believe them to be accurate.

Timing of the application

19. I have seen some criticism of the Ferry Company that we have made this latest Application too close to the last one. I submit that we had no alternative. Once we recognised that the Company had made a loss in 2023, that other years were projected to be loss making and that there was going to be a significant deficiency in the FRR, I consider that we had no alternative but to try and rectify the position as soon as possible. If, for example, we had waited say another three or four years, the deficits were likely by then to have been far higher and the necessary increases, much greater.

Section B: the proposal by the Ferry Company to delay implementation

20. After the Ferry Company issued the Application, it received, via the Department for Transport, a large number of objections.
21. It appeared on reviewing those objections that there was considerable strength of feeling about the reduction in the proposed discounts.
22. A number of specific points were made about the difficulties that local people who use the ferry to commute, would face to pay the increased charges. A number of objections pointed out that it would be very difficult for both key workers and for the low paid to afford the tolls.

23. A number of objectors also specifically referred to the fact that more services, particularly the A&E have been moved from Poole Hospital to Bournemouth Hospital and many people might find it difficult to attend medical appointments.
24. The Ferry Company's Directors considered these objections and, having done so, decided to address the following issues by proposing to implement the tolls more gradually, by taking the following steps:-
- i) Delaying the initial RPI increase by 12 months.
 - ii) Reducing the initial impact of the regular traveller fare increases by spreading them over the initial 4 years.
 - iii) Providing greater discounts to local people, by increasing the discounts on advance purchases
25. This proposal is attached to my Witness Statement at **Appendix B** but the key changes are summarised below.

Effective From	Present Fare (£)	Application Proposed Toll (£)	<u>Revised Proposed Toll (£)</u>	<u>Revised Single Fare (£)</u>	<u>Revised Single x 50 (£)</u>	<u>Percentage saving</u>
Pedestrian/Cyclist/Motorbike 50 Tickets						
01.04.2025	45.00	75.23	49.72	1.75	87.50	43.18%
01.04.2026	45.00	76.50	55.25	1.77	88.50	37.58%
01.04.2027	45.00	77.78	61.88	1.80	90	31.25%
01.04.2028	45.00	79.48	69.92	1.84	92.00	24.00%
01.04.2029	45.00	81.18	71.44	1.88	94.00	24.00%

Effective From	Present Fare (£)	Application Proposed Toll (£)	<u>Revised Proposed Toll (£)</u>	<u>Revised Single Fare (£)</u>	<u>Revised Single x 50 (£)</u>	<u>Percentage saving</u>
Pedestrian/Cyclist/Motorbike 100 Tickets						
01.04.2025	85.00	141.60	93.94	1.75	175.00	46.32%
01.04.2026	85.00	144.00	104.45	1.77	177.00	40.99%
01.04.2027	85.00	146.40	117.10	1.80	180.00	34.94%
01.04.2028	85.00	149.60	132.48	1.84	184.00	28.00%
01.04.2029	85.00	152.80	135.36	1.88	188.00	28.00%

Effective From	Present Fare (£)	Application Proposed Toll (£)	<u>Revised Proposed Toll (£)</u>	<u>Revised Single Fare (£)</u>	<u>Revised Single x 50 (£)</u>	<u>Percentage saving</u>
Motor Cars 10 Tickets						
01.04.2025	38.88	47.70	40.05	6.26	62.60	36.03%
01.04.2026	40.32	50.39	42.61	6.36	63.60	33.00%
01.04.2027	41.76	53.22	45.88	6.46	64.60	28.98%
01.04.2028	43.20	56.95	50.08	6.59	65.90	24.00%
01.04.2029	45.00	58.06	51.07	6.72	67.20	24.00%

Effective From	Present Fare (£)	Application Proposed Toll (£)	<u>Revised Proposed Toll (£)</u>	<u>Revised Single Fare (£)</u>	<u>Revised Single x 50 (£)</u>	<u>Percentage saving</u>
Motor Cars 50 Tickets						
01.04.2025	183.60	225.78	189.14	6.26	313.00	39.57%
01.04.2026	190.40	239.02	201.40	6.36	318.00	36.67%
01.04.2027	197.20	252.95	217.05	6.46	323.00	32.80%
01.04.2028	204.00	268.00	237.24	6.59	329.50	28.00%
01.04.2029	212.50	273.20	241.92	6.72	336.00	28.00%

26. In short, the Ferry Company is now offering a discount to pedestrians & cyclists initially of 43.18% gradually reducing to 24% at which level it will remain. For cars & all other vehicles, the discounts will be initially 39.57% (for 50's) or 36.03% (for 10's) and those will be reduced to 28% & 24% respectively, again where they will remain.
27. A pedestrian in 2025, taking advantage of a book of 50 tickets will cross for 99.4p as opposed to the single ticket cash price originally proposed of £1.77. In 2028, a pedestrian will cross for £1.40 rather than the £1.87 originally proposed.
28. For car drivers, again purchasing 50 passes in advance, under the revised proposals, they will cross for £3.78 not £6.36 in 2025 and for £4.75 not £6.70 in 2028.
29. As confirmed by the projections provided by the Company's accountant, these additional discounts are being funded by a reduction in dividends.
30. The Ferry Company's investors are essentially reducing the return on their investment to below 1% over an extended period in order that the Ferry Company can afford these additional discounts.

Section C: Other matters

Costs Savings

31. The Ferry Company did consider other ways of trying to reduce its losses.
32. We continuously look at the possibility of reducing our costs. We regularly check suppliers' prices and will seek several quotes for major expenditure. It is difficult ever to delay expenditure. Most of the expenditure other than on wages and fuels is day to day maintenance. If this is neglected then it will simply cost more to rectify items in the future and will affect the safety and reliability of the ferry and therefore consequently, the service itself. The management is convinced that there are no other significant savings which can be made in the operation of the Ferry.

The Consortium Proposals

33. The Consortium has put forward a proposal which is based, in the main, upon its supposition that the number of cars carried by the ferry will increase over the forecast period by up to 7%.
34. This, in my view, misunderstands our business and fails to take into account the limitations of the Ferry itself.
35. The Ferry can only make a certain number of crossings each day. Further, the ferry is limited, by licence, to carry 48 cars. In practice, we never manage to get that many cars on the ferry. That number was realistic when the ferry was built back in the 1990s and cars were smaller. Today, when the crews load and pull up correctly, we are often only able to load of 44 cars at a maximum, and frequently this figure is not achievable. If there is a bus

on board, it will take up space for at least three cars. Similarly, HGVs, depending on their size will occupy 2-3 spaces.

36. At **Appendix C** is a copy of a report dated May 2023 by Sustrans setting out how cars are becoming larger and the reasons why.
37. In fact, it is more than possible than some of the decline in car crossings may be caused by the reduction from the licenced 48 places to the actual capacity, given the size of modern cars, to 44.
38. It is also reasonable to assume that since the Covid-19 Pandemic trade will have been adversely affected with the change in culture towards 'working from home'.
39. Furthermore the 'wetter' summers of recent years (according to the attached at **Appendix D** 'International Journal of Climatology 2024 State of the UK Climate 2023 – Volume 44 Number S1 July 2024' report) are here to stay.
40. Further in common with most transport providers there is a demand for the "peak" periods which is little affected by pricing. We cannot move that demand to another time of the day. An employee, a health worker for example, has to travel at a certain time of the day in order to arrive at the start of their shift. A retiree with a hospital appointment at Bournemouth Hospital will want only to travel immediately before and after that appointment. Similarly, a tourist or holidaymaker will most likely want to travel on a sunny afternoon and not delay their travel until after dusk. As such it is not the case that passengers who wish to travel when the Ferry is already at capacity can be moved to a less busy period.
41. The Consortium's projections of alleged increased traffic fail to take account of the fact that the Ferry is already frequently at capacity during peak periods. Indeed, often there are lengthy queues and people have to wait for several crossings before being able to board.
42. The Consortium's proposals, as well as assuming that the ferry passenger numbers will increase, contrary to the data relating to actual passenger numbers, also assumes that those increased number of passengers will be prepared to queue for increasingly long periods of time to use the Ferry. Respectfully, the Consortium's proposals are based upon assumptions ungrounded in evidence or knowledge of the everyday reality of the ferry in practice.

Bicycle/Pedestrian

43. The fee for a bicycle and/or a pedestrian has been unchanged since late 2009 meaning it has reduced in real terms year on year. We are seeking an increase in that charge from £1 to £1.75 . As I have stated, this is the first price increase on a bicycle or a pedestrian for more than 15 years

Escrow Account

44. The question of whether the FRR could be ringfenced legally was an issue at the last Inquiry including in the submissions of the Consortium. I have seen the suggestion from the Consortium in the present Application that the FRR can be placed in an "escrow" account.

45. I am advised that this is a matter of law but at the last Inquiry the Ferry Company gave undertakings to the Inspector and the Secretary of State which was all the provision it could make to safeguard the FRR for its intended purpose.
46. A replacement ferry will be required by 2034 at which time the current ferry will be 40 years old. The order for purchase must be in place by 2032. We have to have the purchase price available in the FRR and by way of permitted borrowings at that date.
47. I understood from the last Inquiry it was agreed that the Minister does not have the statutory power to order the Company to do anything particular with its money such as to put part of it into escrow. Further I am advised, that as matter of law the Company is unable to put the money in escrow. I have been advised that an escrow account is for the holding in trust of third-party monies whereas there is no third party here.
48. R legally belongs to the Company and is for the purposes of meeting a future liability of the Company, i.e. the purchase of the Ferry, and so cannot be placed in escrow.
49. The owners have also offered further safeguards in that:-
 - a. The Ferry company will not declare any distribution, a dividend, unless the FRR is in a "surplus" position that year; and
 - b. Any distribution, again in effect of dividend will not exceed 6% of the total net asset value of the Company. This figure has been selected because the Shareholders submit that that is within a "reasonable return on the investment in the undertaking" which is the statutory test.

Increasing The Borrowing Powers

50. I have also seen a number of objectors suggest that the ferry should borrow more to buy a new ferry. This is not possible. The maximum amount the Ferry Company can borrow is £4,965,022. It is a statutory limit set out in Section 11 of the 1986 Act. It would need a further Act of Parliament to change that provision.
51. There are two reasons; firstly, that to alter the Act of Parliament is in itself likely to be a very lengthy and expensive exercise. Just by way of example, the last time the Ferry Company sought to change legislation was when we put in place a byelaw to prohibit fishing on the jetty and cycling on the ferry. This was just a byelaw. The work commenced in March 2015 and the byelaw was eventually made in April 2021. It took six years and considerable expense which was borne by the Company.
52. Secondly even if the statutory borrowing limit was increased by an Act of Parliament, the Ferry Company would still need to be able to provide any potential lender, essentially a commercial bank, with a financial picture that shows that it can repay the borrowings. The profits of the Ferry Company, and the low commercial return to the investors, because of the statutory mechanism, do not make it a particularly attractive proposition. The same figures that are now before the Inquiry would have to be shown to a commercial lender. They do not support borrowing in excess of £5 million.

53. As therefore set out before, the Ferry Company has no alternative but to raise the majority of the money for the new ferry in advance of its purchase. The Ferry Company does not believe that it is realistic to rely upon an increase to its statutory borrowing power.

Traffic Management Order

54. I have seen that it has been suggested that by reintroducing the motor road toll would place in question the Traffic Management Order. Again, I am advised that this is a matter for legal argument, but I understand that reimposing the road charge will not change the legal status of the road. The Traffic Management Order will continue in force and further Traffic Management Orders can be made in the future.

Management Fees

55. A number of the protestors refer to the payment of management fees. The Ferry Company stopped paying management fees to its group companies in 2022 as part of its costs saving measures. The direct costs of the Directors were added to the wages bill and the group companies absorbed the other administration charges.

ROAD ONLY TOLL

56. The ferry road was built by the ferry company. It is not an adopted road and is not maintained by the Local or Highway Authority. We consider it appropriate that some of that cost is now borne by the users of the road as opposed to being added to the ferry fares.
57. The road toll will be set initially at £6.26, equivalent to a car cash toll. We consider that this road toll compares favourably with equivalent places to stop such as the National Trust car parks. It is anticipated that the Road Only Toll will dissuade some drivers from stopping on the verges (including overnight parkers) thus creating more space for ferry users.
58. We are anticipating that the road toll will be collected by an ANPR system. The ferry toll booths will not be moved.
59. We are anticipating that the ANPR infrastructure will be minimal. There will be signs at the start and at the end of the ferry road. These signs will set out what the charge is and provide details of how to pay it. We hope that the vast majority of customers will pay by mobile phone app or via the existing Sandbanks Ferry Ticket Card system. There will be options to pay for those without that technology.
60. In addition, there will be ANPR cameras on the toll booths themselves to ensure that vehicles using the ferry will not be charged the road toll.
61. Payment of the road toll will be enforced by mobile patrols probably on foot or by a fixed camera on a vehicle which will be driven up and down the ferry road.
62. The road toll will only be payable by vehicles that have been recorded as being on the ferry road for more than 30 minutes.
63. The road toll therefore will not be payable by and will not affect:

- a. Vehicles waiting in the ferry queue (which will be exempt anyway because they will be paying the ferry toll).
 - b. Any vehicle that crosses over on the ferry since their number plates will be recorded and excluded by the ANPR system on the ferry toll booths.
 - c. Vehicles using the road to travel to local businesses, the Shell Bay restaurant and boatyard or the house boats or any National Trust properties. These vehicles will not be on the road for more than 30 minutes.
64. If a vehicle is recorded by the ANPR patrols as being on the road for more than 30 minutes, and has not paid the road toll, then a letter will be sent to the registered keeper inviting them to pay the road toll.
65. If the road toll is not paid, then the ferry company has the right to enforce payment of the toll under Section 25 of the Bournemouth-Swanage Motor Road and Ferry Act 1986 (1986 Act). The Ferry Company can make an Application to the Magistrates Court for a private prosecution. Any penalty paid for breach of this section will not be retained by the ferry company but will be paid to the exchequer.
66. We are not anticipating that ANPR will introduce an increase in our capital expenditures as most enforcement companies will provide the staff and technology for approximately 7½% of the revenue generated. We have allowed for this in our figures.

Dynamic Pricing

67. I have seen a number of objectors suggest that we should introduce, dynamic pricing or “fees and fares”.
68. The Ferry Company has considered various pricing models including “off season” or “off peak” discount. We have not been able to identify any that are workable with current technology or economically viable.
69. The difficulty is that because the company is created by statute, any variation in its prices has to be done by way of a Public Inquiry. This very much hampers any sort of dynamic pricing. It is not, for example, possible for us to trial different pricing models because to do so we would need to carry out a full Public Inquiry every time.
70. Further, as the Ferry Company’s costs are generally fixed, it costs about the same to run the ferry in January as in August, the Ferry Company is likely to be running at a loss in the winter months and then would seek to make up that loss in the summer months.
71. The Ferry Company’s limited borrowing powers and the risk of poor weather reducing the income in the peak months (as in the Summers of 2023 and 2024,) means that we cannot justify the possible damage to our cash flow by trialling different pricing models.

Buses

72. The Ferry Company does give priority to buses. Currently, buses are permitted to bypass the queue to board the Ferry ahead of all other traffic.

73. Buses, however, sometimes are blocked in by traffic at busy times when, for safety reasons, they are unable to pass queuing traffic on the wrong side of the road.
74. In April 2023, there was a site meeting between the Bus Company and the Ferry Company. This was identified as a problem. We pointed out that it was difficult to stop traffic parking, because fixed cameras cannot be used as there is no electricity, and it would be very difficult to erect further enforcement signs because of the SSSI status of the peninsula.
75. It was left on the basis that the Bus Company representative said, “leave this with me and I will come back to you.” This was the last communication we had from the Bus Company until their recent objection.

Motor Homes

76. I have seen a number of objections at the issues with motor homes parking overnight. I accept that this is a problem, not least because the cost of cleaning up the resulting rubbish is borne mainly (but not wholly) by the National Trust.
77. Dorset Council has put in place a Controlled Parking Zone Traffic Management Order which prohibits waiting on the Ferry Road and the verges between the hours of midnight and 6:30am.
78. As this is a Traffic Management Order, only Dorset Council can enforce this ban.
79. My staff, at least on a weekly basis, and daily during the busy periods, telephone Dorset Council and ask them to enforce the ban on parking on the verges between midnight and 6:30am. We ask them, specifically, to stop campervans parking overnight.
80. We even offered, at one point, to have our staff trained as parking control officers in order that we could enforce that Order on Dorset Council’s behalf. That offer was not accepted.
81. We are, however, hoping that as most of the campervans do not move off early, that there will be some reduction in the overnight parking as, if they stay after 7:00am, and have not paid the daily road charge, they will incur a fine.

Comparison Ferry Tolls

82. I believe that the ferry crossing tariff comparison table at in the consortium’s objection is not particularly representative.
83. The Consortium has included three ferries that are operated by Local Authorities and are therefore the beneficiary of substantial subsidies that is Cowes’ floating bridge, Torpoint Ferry and Bowness on Windermere Ferry.
84. Two of the others, Mersey & Gosport are pedestrian only.
85. The Dartmouth lower ferry is not a chain (or wire) ferry.
86. The two direct comparators are therefore the Dartmouth Higher Ferry and the King Harry Ferry. It can be seen that both of these ferries charge a significantly higher price for nearly

every class of traffic. For example a single car, £7.50 and £8.90 as against our present car toll of £5.30.

Location	Distance of Crossing (metres)	Distance of alternative route (miles)	No. of cars	Prices (single)							
				Pedestrians	Bicycles	Cars	Vans, Pickups, Minibus	Large Goods Vehicle	Light Goods Vehicle	Bus Coach	Motorcycle
Dartmouth Higher Ferry	365	25	36	£1.00	£1.00	£8.90	£11.50	£32.00	£8.90	£36.00	£2.90
King Harry Ferry	230	26	34	Charity Donation	£2.00	£7.50	£11.00	£11.00	£11.00	£11.00	£3.00
Bournemouth-Swanage Ferry	328	25	48	£1.00	£1.00	£5.30	£5.30	£10.60	£5.30	£10.60	£1.00

Right to a Review

87. The Consortium asks for a compulsory review of the FRR 5 years from the date on which the next Order is made.
88. The Consortium already has the power, as a representative of persons having a substantial interest for the revision of any of the charges, to make such application to the Minister “*at any time*”. That right is set out in Section 6 of Transport Charges & c (Miscellaneous Provisions) Act 1954 (“1954 Act”). The section is quoted in full in the Ferry Company’s application.
89. The Explanatory Note to the Application specifically dealt with this point

“8.5 *The publication of the accounts will, therefore, provide both any person using the Ferry and, perhaps more pertinently, Local and Parish Councils with a mechanism for reviewing the Ferry Company’s accounts. If it appears that, in the view of any person or body, the Ferry Company is now receiving an annual revenue that is substantially more than adequate to meet its expenditure, any person or body can make the appropriate application to the Secretary of State. At the last Public Inquiry, a consortium was formed between Dorset Council, Bournemouth, Poole and Christchurch Council and Swanage Town Council to object to elements of the Ferry Company’s last proposal.*

The Legal Test

90. The Consortium asserts that the Ferry Company must demonstrate “beyond reasonable doubt” the need to rise the current fare. This is the criminal standard of proof. This is a lawful application which the Ferry Company is permitted to make under Section 6 of the 1954 Act. Again, the section is quoted in full in the Ferry Company’s application.
91. I am advised and believe that, as set out in the Application that the correct test is “ *in [the Minister’s] opinion*”

Restrictions on future applications

92. The Consortium asks that the Minister imposes a restriction on the number of applications that the Ferry Company can make to no more than one every 5 years.
93. I am advised and believe that such restriction would be unlawful. The Ferry Company cannot under Section 6 of the 1954 Act make a further application within a “period of *twelve months* from the date of the making of the order or, as the case may be, from the date when the Minister gave notice of his decision not to make an order”. Again, the section is quoted in full in the Ferry Company’s application.

Profiteering

94. I have seen various suggestions that the shareholders or group companies take out too much profit from the Ferry Company.
95. During the years 1995 to 2018 dividends were paid to the holding company. The dividends average £500,000 per annum against average net assets during in each year of circa £11m
96. All dividend payments were contained in prior toll applications. All the dividend payments made in the years 1995 to 2018 were therefore approved by previous Ministers as being a reasonable return upon the investment of the Ferry Company in the motor road and the ferry as defined in section 2 of the Bournemouth-Swanage Motor Road and Ferry Act 1986.
97. The average return on investment between 1995 to 2018 was 4.5%. For the reasons set out on above, this was considered to be a reasonable return to reflect the risk and investment by the holding company. I submit that a return of 4.5% on an investment was not excessive.
98. It was recognised at the 2018 Inquiry that the company needed to catchup and the dividend policy was changed such that no dividends would be paid unless the FRR at any given time plus £4,965,022 (being the maximum amount the company can borrow net of long term creditors) exceeds the forecast cost of a new ferry (at that same given time) and that the total dividends paid in any year do not exceed 6% of the then net asset value.
99. As a result of that policy the shareholders have not received a dividend since FYE 2018. On the present projections, without a change, the Shareholders will not receive a dividend at any time in the future. If the original application is approved (with the correction to traffic volumes), then the Ferry Company can pay its first dividend of £352,614 after 12 years. However, if the updated application is approved, allowing for a deferral in price increases and a phasing in of discounts, the first dividend will not be payable until after 15 years in 2033 in the amount of £227,781 (these calculations assume the actual cost of a new ferry at that time remains affordable).
100. In addition to not receiving dividends, the Parent Company will also be expected to provide security or guarantee, to enable the Ferry company to borrow up to the statutory

limit of £4,965,022 to part-fund the purchase of the new ferry. Furthermore, it is in fact likely that, due to the Ferry Company's inadequate cashflow, the parent Company will in fact be the source of such any loan secured against its other assets.

**IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON
THE BOURNEMOUTH-SWANAGE MOTOR ROAD & FERRY LINK**

**Appendices to the Financial Statement and Response of Michael Kean,
Chairman To The Bournemouth-Swanage Motor Road and Ferry
Company**

<u>Appendices</u>	<u>Page Number</u>
Appendix A Fairacres Group Limited – Annual Report and Financial Statements, Y/E 31 March 2024	2 - 37
Appendix B Spreadsheet setting out proposed new discounts with comparison of the percentage changes	38 - 39
Appendix C “Why are cars getting bigger? A deep dive into how UK regulations are enabling car size growth” – Ruth Carlson, Sustrans – May 2023	40 - 65
Appendix D “International Journal of Climatology: State of the UK Climate 2023” – The Royal Meteorological Society Journal of Climate Science, Volume 44 Number S1, July 2024	66 - 187

Appendix A

Company Registration No. 03021137 (England and Wales)

FAIRACRES GROUP LIMITED
ANNUAL REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2024

!RickardLuckin

FAIRACRES GROUP LIMITED

COMPANY INFORMATION

Directors	MPR Kean Mrs SE Seager Ms R Kean
Secretary	C Leach
Company number	03021137
Registered office	Fairacres Stock Lane Ingatestone Essex CM4 9QL
Auditor	Rickard Luckin Limited 1st Floor County House 100 New London Road Chelmsford Essex CM2 0RG
Business address	Fairacres Stock Lane Ingatestone Essex CM4 9QL
Bankers	Handelsbanken Greenwood House 91-99 New London Road Chelmsford Essex CM2 0PP

FAIRACRES GROUP LIMITED

CONTENTS

	Page
Strategic report	1 - 2
Directors' report	3 - 4
Independent auditor's report	5 - 8
Profit and loss account	9
Group statement of comprehensive income	10
Group balance sheet	11
Company balance sheet	12
Group statement of changes in equity	13
Company statement of changes in equity	14
Group statement of cash flows	15
Notes to the financial statements	16 - 32

FAIRACRES GROUP LIMITED

STRATEGIC REPORT

FOR THE YEAR ENDED 31 MARCH 2024

The directors present their strategic report for the year ended 31 March 2024.

Review of the business

Details of the group trading results for the year are set out in the consolidated profit and loss account on page 9.

The group's gross rental income was £973,092 compared with the prior year's £895,183. This division continues to produce strong results following previous extensive improvement works over recent years and having secured additional tenants has seen income levels increase in the current financial year.

The turnover of the ferry division was £3,314,355 this year compared to £2,400,575 for the previous period. This division was severely disrupted in the prior year due to an extended period out of the water; firstly for a scheduled refit but furthermore following an incident which led to further repair work being required. This division has had a more settled year and has reported a pre tax profit of £906,141 compared to a pre tax loss of £721,149 in the previous year.

Review Hotels Limited continues to own two hotels in Newmarket. The results for this division again only reflect the trading performance of the Bedford Lodge Hotel, due to the second hotel site being closed from December 2019. The Bedford Lodge site has remained fully open this year. The current period has presented other challenges with regards to cost inflation and a slight drop in occupancy, and as a result, the company has made a pre-tax loss of £316,262, prior to exceptional items. Based on trading performance and expected realisable value the directors have assessed the carrying value of the sites and have made further adjustments as necessary. The Rutland Arms site has been transferred to stock held for sale at its fair value of £1,850,000.

Principal risks and uncertainties

The key business risk affecting the group is considered to be the current economic outlook for businesses and the wider economy. The directors are mitigating the impact of this to the extent possible through careful management of business operations and ensuring that spending within the business is carefully managed. Each division has shown a degree of resilience despite difficult circumstances in recent years.

The management of the business is subject to a number of other risks, these are reviewed by the board and appropriate processes put in place to monitor and mitigate them.

Development and performance

The directors consider that the position of the group at the year end was satisfactory given the challenging trading environment.

The group has a number of divisions and as such, whilst not immune to the impact of the trading and economic landscape, has diversity that allows some spreading of risk.

The directors are confident that there is consumer demand which will result in continued positive trading and that the offering the hotel presents ensures the business is best placed in the local market. It is hoped that the business will be able to continue its careful management of cost inflation and that consumer confidence remains. The focus over the coming year will be to ensure that The Bedford Lodge Hotel continues to deliver an excellent service to its customers and the company is able to deliver positive trading results.

The Ferry continues to meet the needs of the local community. Revenue and trading returns are anticipated to remain positive during 2024/25.

The group's property divisions are being closely monitored but are not expected to see a material change in rental income.

FAIRACRES GROUP LIMITED

STRATEGIC REPORT (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

Key performance indicators

The board monitors progress on overall strategy by reference to a variety of key performance indicators due to the diverse nature of the group's operations.

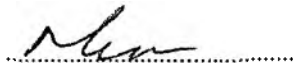
For the ferry division it is turnover compared with previous years.

For investment properties it is gross rents, rental rates per square meter and occupancy rates.

For the hotel it is room occupancy and gross margin.

The key performance indicators for the investment properties have seen positive movements for the period. The Ferry division turnover has increased significantly given the difficulties experienced in the prior period. The occupancy and gross margin at the hotel has dropped slightly but not unexpectedly, given the market factors that have impacted this.

On behalf of the board



MPR Kean
Director

Date: 28/08/24

FAIRACRES GROUP LIMITED

DIRECTORS' REPORT

FOR THE YEAR ENDED 31 MARCH 2024

The directors present their annual report and financial statements for the year ended 31 March 2024.

Principal activities

Fairacres Group Limited is the holding company of several 100% owned subsidiaries and does not trade in its own name.

Through its subsidiary companies the group owns, develops and lets commercial and residential properties, trades as an hotelier and operates, under statute, a motor driven chain ferry.

Results and dividends

The results for the year are set out on page 9.

No ordinary dividends were paid. The directors do not recommend payment of a final dividend.

Directors

The directors who held office during the year and up to the date of signature of the financial statements were as follows:

MPR Kean
Mrs SE Seager
Ms R Kean

Directors' insurance

A directors' indemnity policy exists in the form of a combined insurance policy across the group.

Financial instruments

Treasury operations and financial instruments

The group operates a treasury function which is responsible for managing the liquidity, interest and credit risks associated with the group's activities. The group's management of this function does not include the use of derivative financial instruments.

Liquidity risk

The group manages its cash and borrowing requirements in order to maximise interest income and minimise interest expense, whilst ensuring the group has sufficient liquid resources to meet the operating needs of the business. Funds are transferred between group companies to assist in managing this risk.

Interest rate risk

The group is exposed to cash flow interest rate risk on floating rate deposits, bank overdrafts and loans. The group does not use interest rate derivatives to manage this risk as the directors do not feel this is necessary in the context of the overall risk management of the business.

Credit risk

All customers who wish to trade on credit terms are subject to credit verification procedures. Trade debtors are monitored on an ongoing basis and provision is made for doubtful debts where necessary.

FAIRACRES GROUP LIMITED

DIRECTORS' REPORT (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

Statement of directors' responsibilities

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and company, and of the profit or loss of the group for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the group and company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the group's and company's transactions and disclose with reasonable accuracy at any time the financial position of the group and company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the group and company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Statement of disclosure to auditor

So far as each person who was a director at the date of approving this report is aware, there is no relevant audit information of which the auditor of the company is unaware. Additionally, the directors individually have taken all the necessary steps that they ought to have taken as directors in order to make themselves aware of all relevant audit information and to establish that the auditor of the company is aware of that information.

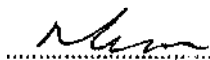
Strategic report

The company has chosen in accordance with Companies Act 2006, s. 414C(11) to set out in the company's strategic report information required by Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, Sch. 7 to be contained in the directors' report. It has done so in respect of future developments.

Medium-sized companies exemption

This report has been prepared in accordance with the provisions applicable to companies entitled to the medium-sized companies exemption.

On behalf of the board



MPR Kean

Director

Date: 28/08/24

FAIRACRES GROUP LIMITED

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF FAIRACRES GROUP LIMITED

Opinion

We have audited the financial statements of Fairacres Group Limited (the 'parent company') and its subsidiaries (the 'group') for the year ended 31 March 2024 which comprise the group profit and loss account, the group statement of comprehensive income, the group balance sheet, the company balance sheet, the group statement of changes in equity, the company statement of changes in equity, the group statement of cash flows and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the parent company's affairs as at 31 March 2024 and of the group's profit for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's and parent company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Other information

The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of our audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

FAIRACRES GROUP LIMITED

INDEPENDENT AUDITOR'S REPORT (CONTINUED)

TO THE MEMBERS OF FAIRACRES GROUP LIMITED

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. In preparing the financial statements, the directors are responsible for assessing the parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Capability of the audit in detecting irregularity, including fraud

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our: general commercial and sector experience; through verbal and written communications with those charged with governance and other management and via inspection of the group's regulatory and legal correspondence.

We discussed with those charged with governance and other management the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations to our team and remained alert to any indicators of non-compliance throughout the audit, we also specifically considered where and how fraud may occur within the group.

The potential effect of these laws and regulations on the financial statements varies considerably.

Firstly, the group is subject to laws and regulations that directly affect the financial statements, including: the company's constitution; relevant financial reporting standards; company law; tax legislation and distributable profits legislation and we assess the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

FAIRACRES GROUP LIMITED

INDEPENDENT AUDITOR'S REPORT (CONTINUED) TO THE MEMBERS OF FAIRACRES GROUP LIMITED

Secondly the group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on the amounts or disclosures in the financial statements, for instance through the imposition of fines and penalties, or through losses arising from litigations. We identified the following areas as those most likely to have such an affect: employment legislation; data protection legislation; health and safety legislation and other specific trade legislation.

ISAs (UK) limit the required procedures to identify non-compliance with these laws and regulations, and no procedures over and above those already noted are required. These limited procedures did not identify any actual or suspected non-compliance with laws and regulations that could have a material impact on the financial statements.

In relation to fraud, we performed the following specific procedures in addition to those already noted:

- Challenging assumptions made by management in its significant accounting estimates;
- Identifying and testing journal entries, in particular any entries posted with unusual nominal ledger account combinations, journal entries crediting cash or any revenue account and journal entries posted by senior management;
- Performing analytical procedures to identify unexpected movements in account balances which may be indicative of fraud;
- Ensuring that testing undertaken on both the performance statement, and the Balance Sheet includes a number of items selected on a random basis;

These procedures did not identify any actual or suspected fraudulent irregularity that could have a material impact on the financial statements.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with ISAs (UK). For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the procedures that we are required to undertake would identify it. In addition, as with any audit, there remains a high risk of non-detection of irregularities, as these might involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal controls. We are not responsible for preventing non-compliance with laws and regulations or fraud, and cannot be expected to detect non-compliance with all laws and regulations or every incidence of fraud.

A further description of our responsibilities is available on the Financial Reporting Council's website at: <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor's report.

FAIRACRES GROUP LIMITED

INDEPENDENT AUDITOR'S REPORT (CONTINUED) TO THE MEMBERS OF FAIRACRES GROUP LIMITED

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Rickard Luckin Limited

Michael Breame (Senior Statutory Auditor)
For and on behalf of Rickard Luckin Limited

Date: *28th August 2024*

Chartered Accountants
Statutory Auditor

1st Floor
County House
100 New London Road
Chelmsford
Essex
CM2 0RG

FAIRACRES GROUP LIMITED

GROUP PROFIT AND LOSS ACCOUNT

FOR THE YEAR ENDED 31 MARCH 2024

		2024	2023
	Notes	£	as restated £
Turnover	3	10,773,860	10,076,148
Cost of sales		(5,413,855)	(7,543,997)
Gross profit		5,359,805	2,532,151
Administrative expenses		(4,097,671)	(3,986,665)
Other operating income		42,774	1,260,559
Exceptional item	4	(277,844)	-
Operating profit/(loss)	5	1,027,064	(193,955)
Interest receivable and similar income	9	37,536	18,224
Interest payable and similar expenses	10	(620,917)	(464,857)
Fair value adjustments	14	1,537,039	-
Profit/(loss) before taxation		1,980,722	(640,588)
Tax on profit/(loss)	11	(598,424)	(40,269)
Profit/(loss) for the financial year	25	1,382,298	(680,857)

Profit/(loss) for the financial year is all attributable to the owners of the parent company.

FAIRACRES GROUP LIMITED

GROUP STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 MARCH 2024

	2024	2023 as restated
	£	£
Profit/(loss) for the year	1,382,298	(680,857)
Other comprehensive income		
Tax relating to other comprehensive income	16,964	14,076
Total comprehensive income for the year	<u>1,399,262</u>	<u>(666,781)</u>

Total comprehensive income for the year is all attributable to the owners of the parent company.

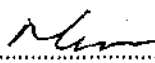
FAIRACRES GROUP LIMITED

GROUP BALANCE SHEET

AS AT 31 MARCH 2024

	Notes	2024		2023	
		£	£	£	£
Fixed assets					
Tangible assets	13	24,565,394		26,980,867	
Investment properties	14	12,900,000		11,362,961	
		<u>37,465,394</u>		<u>38,343,828</u>	
Current assets					
Stocks	17	2,520,623		592,031	
Debtors	18	761,871		1,678,260	
Cash at bank and in hand		15,031,678		13,826,576	
		<u>18,314,172</u>		<u>16,096,867</u>	
Creditors: amounts falling due within one year	19	(15,382,379)		(23,839,940)	
Net current assets/(liabilities)		<u>2,931,793</u>		<u>(7,743,073)</u>	
Total assets less current liabilities		<u>40,397,187</u>		<u>30,600,755</u>	
Creditors: amounts falling due after more than one year	20	(8,000,000)		-	
Provisions for liabilities	22	(2,289,544)		(1,892,374)	
Net assets		<u>30,107,643</u>		<u>28,708,381</u>	
Capital and reserves					
Called up share capital	24	1,745		1,745	
Share premium account		805,839		805,839	
Other reserves	27	17,729,912		17,799,335	
Motor ferry replacement reserve	27	4,495,954		4,224,062	
Capital redemption reserve		350		350	
Profit and loss reserves	27	6,929,315		5,732,522	
Discount on acquisition		144,528		144,528	
Equity attributable to owners of the parent company		<u>30,107,643</u>		<u>28,708,381</u>	

The financial statements were approved by the board of directors and authorised for issue on 28/8/2024 and are signed on its behalf by:


 MPR Kean
 Director

FAIRACRES GROUP LIMITED

COMPANY BALANCE SHEET

AS AT 31 MARCH 2024

		2024	2023
	Notes	£	£
Fixed assets			
Investments	15	518,740	518,740
Current assets			
Debtors	18	-	1,286
Cash at bank and in hand		10,467,067	10,488,153
		<u>10,467,067</u>	<u>10,489,439</u>
Creditors: amounts falling due within one year	19	-	(572)
Net current assets		<u>10,467,067</u>	<u>10,488,867</u>
Net assets		<u>10,985,807</u>	<u>11,007,607</u>
Capital and reserves			
Called up share capital	24	1,745	1,745
Share premium account	25	805,839	805,839
Capital redemption reserve	25	350	350
Profit and loss reserves	25	10,177,873	10,199,673
Total equity		<u>10,985,807</u>	<u>11,007,607</u>

These financial statements have been prepared in accordance with the provisions relating to medium-sized companies.

The financial statements were approved by the board of directors and authorised for issue on 28/8/2024 and are signed on its behalf by:



MPR Kean
Director

Company registration number 03021137 (England and Wales)

FAIRACRES GROUP LIMITED

GROUP STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2024

	Share capital	Share premium account	Other reserves	Discount on acquisition	Capital redemption reserve	Motor ferry replacement reserve	Profit and loss reserves	Total
	£	£	£	£	£	£	£	£
As restated for the period ended 31 March 2023:								
Balance at 1 April 2022	1,745	805,839	17,871,646	144,528	350	4,224,062	6,326,992	29,375,162
Year ended 31 March 2023:								
Loss for the year	-	-	-	-	-	-	(680,857)	(680,857)
Other comprehensive income:								
Tax relating to other comprehensive income	-	-	14,076	-	-	-	-	14,076
Total comprehensive income for the year	-	-	14,076	-	-	-	(680,857)	(666,781)
Transfers	-	-	(86,387)	-	-	-	(779,913)	-
Balance at 31 March 2023	1,745	805,839	17,799,335	144,528	350	4,224,062	5,732,522	28,708,381
Year ended 31 March 2024:								
Profit for the year	-	-	-	-	-	-	1,382,298	1,382,298
Other comprehensive income:								
Tax relating to other comprehensive income	-	-	16,964	-	-	-	-	16,964
Total comprehensive income for the year	-	-	16,964	-	-	-	1,382,298	1,399,262
Transfers	-	-	(86,387)	-	-	271,892	(185,505)	-
Balance at 31 March 2024	1,745	805,839	17,729,912	144,528	350	4,495,954	6,929,315	30,107,643

FAIRACRES GROUP LIMITED

COMPANY STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 31 MARCH 2024

	Share capital £	Share premium account £	Capital redemption reserve £	Profit and loss reserves £	Total £
As restated for the period ended 31 March 2023:					
Balance at 1 April 2022	1,745	805,839	350	10,243,242	11,051,176
Year ended 31 March 2023:					
Loss and total comprehensive income for the year	-	-	-	(43,569)	(43,569)
Balance at 31 March 2023	1,745	805,839	350	10,199,673	11,007,607
Year ended 31 March 2024:					
Profit and total comprehensive income	-	-	-	(21,800)	(21,800)
Balance at 31 March 2024	1,745	805,839	350	10,177,873	10,985,807

FAIRACRES GROUP LIMITED

GROUP STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

		2024		2023	
	Notes	£	£	£	£
Cash flows from operating activities					
Cash generated from/(absorbed by) operations	31		1,879,439		(468,587)
Interest paid			(620,917)		(464,857)
Income taxes paid			(163,081)		(226,736)
Net cash inflow/(outflow) from operating activities			1,095,441		(1,160,180)
Investing activities					
Purchase of tangible fixed assets		(170,072)		(318,128)	
Proceeds from disposal of tangible fixed assets		32,501		-	
Investment property additions/expenditure		-		(132,961)	
Interest received		37,536		18,224	
Net cash used in investing activities			(100,035)		(432,865)
Net increase/(decrease) in cash and cash equivalents			995,406		(1,593,045)
Cash and cash equivalents at beginning of year			535,960		2,129,005
Cash and cash equivalents at end of year			1,531,366		535,960
Relating to:					
Cash at bank and in hand			15,031,678		13,826,576
Bank overdrafts included in creditors payable within one year			(13,500,312)		(13,290,616)

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 MARCH 2024

1 Accounting policies

Company information

Fairacres Group Limited ("the company") is a private limited company domiciled and incorporated in England and Wales. The registered office is Fairacres, Stock Lane, Ingatstone, Essex, CM4 9QL.

The group consists of Fairacres Group Limited and all of its subsidiaries.

1.1 Accounting convention

These financial statements have been prepared in accordance with FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" ("FRS 102") and the requirements of the Companies Act 2006.

The financial statements have been prepared under the historical cost convention, [modified to include the revaluation of freehold properties and to include investment properties and certain financial instruments at fair value]. The principal accounting policies adopted are set out below.

As permitted by s408 Companies Act 2006, the Company has not presented its own profit and loss account and related notes. The company's loss after taxation for the year was £21,800 (2023: £43,569).

1.2 Basis of consolidation

The consolidated financial statements incorporate those of Fairacres Group Limited and all of its subsidiaries (i.e. entities that the Group controls through its power to govern the financial and operating policies so as to obtain economic benefits). Subsidiaries acquired during the year are consolidated using the purchase method. Their results are incorporated from the date that control passes. All financial statements are made up to 31 March 2024.

All intra-group transactions, balances and unrealised gains on transactions between group companies are eliminated on consolidation. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by other members of the Group.

The cost of a business combination is the fair value at the acquisition date of the assets given, equity instruments issued and liabilities incurred or assumed, plus costs directly attributable to the business combination. The excess of the cost of a business combination over the fair value of the identifiable assets, liabilities and contingent liabilities acquired is recognised as goodwill.

The cost of the combination includes the estimated amount of contingent consideration that is probable and can be measured reliably, and is adjusted for changes in contingent consideration after the acquisition date.

1.3 Going concern

The directors are aware of material uncertainties in respect of going concern which are disclosed in the financial statements of Review Hotels Limited, a subsidiary within the group. The directors have considered the impact of this on the group position and are satisfied that there are no material uncertainties from a group perspective.

At the time of approving the financial statements, the directors have a reasonable expectation that the group has adequate resources to continue in operational existence for the foreseeable future. Thus the directors continue to adopt the going concern basis of accounting in preparing the financial statements.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

1 Accounting policies

(Continued)

1.4 Turnover

Credit is taken for rents on a daily basis. Any amounts of rent received in advance are carried forward.

Credit is taken for the toll income on a daily basis. Any amount received in advance is carried forward.

In respect of the hotel division income; revenue from the sale of goods is recognised at the point of delivery of those goods to the customer, and in respect of food and drink sales at the point of consumption. Room rental is recognised at the point of occupation.

Income from properties held for development is recognised at the date of legal completion.

1.5 Tangible fixed assets

Tangible fixed assets are initially measured at cost and subsequently measured at cost or valuation, net of depreciation and any impairment losses.

Fixed assets are stated at cost or professional valuation, less depreciation. Depreciation is calculated to write off fixed assets over their estimated useful lives at the following annual rates:

Freehold land and buildings	Hotel buildings are depreciated at 1% per annum straight line basis, land is not depreciated.
Motor ferry	40 years straight line basis
Fixtures, fittings and equipment	5 - 10 years straight line basis
Plant, machinery and motor vehicles	20-25% reducing balance basis and 20% straight line basis

The gain or loss arising on the disposal of an asset is determined as the difference between the sale proceeds and the carrying value of the asset, and is recognised in the profit and loss account.

The group has adopted the transitional arrangements included within FRS102 and have chosen to "freeze" the valuation of certain land and buildings and the Motor Ferry as at the date of transition; 31st March 2014. No subsequent valuations are therefore included and the valuation at that date becomes the "deemed cost".

1.6 Investment properties

Investment property, which is property held to earn rentals and/or for capital appreciation, is measured using the fair value model and stated at its fair value as the reporting end date. The surplus or deficit on revaluation is recognised in the profit and loss account.

Investment properties are included in the balance sheet at their fair value.

1.7 Fixed asset investments

A subsidiary is an entity controlled by the group. Control is the power to govern the financial and operating policies of the entity so as to obtain benefits from its activities. Subsidiaries are carried in the company's balance sheet at cost less provision for impairment.

1.8 Impairment of fixed assets

At each reporting period end date, the group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

The carrying amount of the investments accounted for using the equity method is tested for impairment as a single asset. Any goodwill included in the carrying amount of the investment is not tested separately for impairment.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

1 Accounting policies

(Continued)

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

1.9 Stocks

Stocks are stated at the lower of cost and estimated selling price less costs to complete and sell.

Stocks held for distribution at no or nominal consideration are measured at cost, adjusted where applicable for any loss of service potential.

Stocks held for the purpose of the ferry re-fit are stated at cost and are not held for sale.

Properties held in stock for sale are those transferred from investment properties at fair value at the date of transfer which now represents deemed cost.

1.10 Cash and cash equivalents

Cash and cash equivalents are basic financial assets and include cash in hand, deposits held at call with banks, other short-term liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities.

1.11 Financial instruments

The group has elected to apply the provisions of Section 11 'Basic Financial Instruments' and Section 12 'Other Financial Instruments Issues' of FRS 102 to all of its financial instruments.

Financial instruments are recognised in the group's balance sheet when the group becomes party to the contractual provisions of the instrument.

Financial assets and liabilities are offset and the net amounts presented in the financial statements when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

Basic financial assets

Basic financial assets, which include debtors and cash and bank balances, are initially measured at transaction price including transaction costs and are subsequently carried at amortised cost using the effective interest method unless the arrangement constitutes a financing transaction, where the transaction is measured at the present value of the future receipts discounted at a market rate of interest. Financial assets classified as receivable within one year are not amortised.

Other financial assets

Other financial assets, including investments in equity instruments which are not subsidiaries, associates or joint ventures, are initially measured at fair value, which is normally the transaction price. Such assets are subsequently carried at fair value and the changes in fair value are recognised in profit or loss, except that investments in equity instruments that are not publicly traded and whose fair values cannot be measured reliably are measured at cost less impairment.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

1 Accounting policies

(Continued)

Impairment of financial assets

Financial assets, other than those held at fair value through profit and loss, are assessed for indicators of impairment at each reporting end date.

Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows have been affected. If an asset is impaired, the impairment loss is the difference between the carrying amount and the present value of the estimated cash flows discounted at the asset's original effective interest rate. The impairment loss is recognised in profit or loss.

If there is a decrease in the impairment loss arising from an event occurring after the impairment was recognised, the impairment is reversed. The reversal is such that the current carrying amount does not exceed what the carrying amount would have been, had the impairment not previously been recognised. The impairment reversal is recognised in profit or loss.

Derecognition of financial assets

Financial assets are derecognised only when the contractual rights to the cash flows from the asset expire or are settled, or when the group transfers the financial asset and substantially all the risks and rewards of ownership to another entity, or if some significant risks and rewards of ownership are retained but control of the asset has transferred to another party that is able to sell the asset in its entirety to an unrelated third party.

Classification of financial liabilities

Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the group after deducting all of its liabilities.

Basic financial liabilities, including creditors, bank loans, loans from fellow group companies and preference shares that are classified as debt, are initially recognised at transaction price unless the arrangement constitutes a financing transaction, where the debt instrument is measured at the present value of the future payments discounted at a market rate of interest. Financial liabilities classified as payable within one year are not amortised.

Debt instruments are subsequently carried at amortised cost, using the effective interest rate method.

Trade creditors are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Amounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade creditors are recognised initially at transaction price and subsequently measured at amortised cost using the effective interest method.

Derecognition of financial liabilities

Financial liabilities are derecognised when the group's contractual obligations expire or are discharged or cancelled.

1.12 Equity instruments

Equity instruments issued by the group are recorded at the proceeds received, net of transaction costs. Dividends payable on equity instruments are recognised as liabilities once they are no longer at the discretion of the group.

1.13 Taxation

The tax expense represents the sum of the tax currently payable and deferred tax.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

1 Accounting policies

(Continued)

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the profit and loss account because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting end date.

Deferred tax

Deferred tax liabilities are generally recognised for all timing differences and deferred tax assets are recognised to the extent that it is probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits. Such assets and liabilities are not recognised if the timing difference arises from goodwill or from the initial recognition of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

The carrying amount of deferred tax assets is reviewed at each reporting end date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the profit and loss account, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity. Deferred tax assets and liabilities are offset if, and only if, there is a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority.

In accordance with FRS102 deferred tax is provided in respect of historically revalued assets as appropriate.

In the consolidated financial statements current tax on profits for the current period is shown prior to the application of group relief. Group relief is applied where available and each company pays or receives £1 for every £1 of tax saved. This is accounted for at the point of submission of the appropriate returns. Amounts payable or receivable are eliminated on consolidation.

1.14 Employee benefits

The costs of short-term employee benefits are recognised as a liability and an expense, unless those costs are required to be recognised as part of the cost of stock or fixed assets.

The cost of any unused holiday entitlement is recognised in the period in which the employee's services are received.

Termination benefits are recognised immediately as an expense when the company is demonstrably committed to terminate the employment of an employee or to provide termination benefits.

1.15 Retirement benefits

The Bournemouth-Swanage Motor Road and Ferry Co Inc and Review Hotels Limited operate defined contribution schemes for the benefit of their employees. Contributions payable are charged to the profit and loss account in the year they are payable.

1.16 Motor ferry replacement reserve

An amount is being set aside over the period to 31 March 2032 to renew the motor ferry by the transfer of an estimated amount to the Motor Ferry Replacement Reserve, when sufficient funds are available. To ensure the reserve is available for the replacement of the Ferry with sufficient time, the reserve is being built up to the required level 2 years before the anticipated replacement year of 2034. The directors have specifically ring fenced this reserve for the purpose of the ferry replacement.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

2 Judgements and key sources of estimation uncertainty

In the application of the group's accounting policies, the directors are required to make judgements, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised where the revision affects only that period, or in the period of the revision and future periods where the revision affects both current and future periods.

Critical judgements

The following judgements (apart from those involving estimates) have had the most significant effect on amounts recognised in the financial statements.

Impairment of tangible fixed assets / reversal of impairment

Tangible fixed assets are depreciated over their useful economic lives and are reviewed for indicators of impairment at each balance sheet date. The directors have considered such indicators present at previous balance sheet dates, largely based on trading results. The Rutland Arms Hotel site is now up for sale and the directors therefore had to consider the recoverable amounts of this site in its existing condition, resulting in a further impairment of the cost, prior to the transfer of this asset to stock at its fair value.

The directors have assessed the carrying value of tangible fixed assets in the Bedford Lodge Hotel in light of the current conditions and with the comparison to a previous professional valuation. They have concluded that £Nil of the Impairment previously recognised can be reversed and that taking into account current year movements, including depreciation, the carrying value at the balance sheet date remains appropriate on that basis.

This assessment assumes that the Bedford Lodge Hotel is able to continue to trade positively over the coming years, whilst mindful that the 2024/25 trading year may still be challenging for wider economic reasons.

Useful economic life of the Motor Ferry

The Motor Ferry is a critical asset of the business and its useful economic life variable depending on its upkeep and potential advancements in technology that may allow it to operate for longer than originally designed or intended. During the year the directors have updated the useful life of the Motor Ferry based on their expectation of its remaining useful economic life following further maintenance works completed during the year.

3 Turnover

An analysis of the group's turnover is as follows:

	2024 £	2023 £
Turnover analysed by class of business		
Property rental	973,092	895,183
Tolls	3,314,355	2,400,575
Hotel - services	4,146,723	4,403,856
Hotel - goods	2,339,490	2,376,534
	<u>10,773,660</u>	<u>10,076,148</u>

All of the turnover has been generated within the United Kingdom.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

4 Exceptional item

	2024	2023
	£	£
Expenditure		
Impairment of tangible fixed assets	277,844	-

The directors have made necessary impairment adjustments to tangible fixed assets in the year in respect of a trading property, which has subsequently been reclassified to stock held for sale.

5 Operating profit/(loss)

	2024	2023
	£	£
Operating profit/(loss) for the year is stated after charging/(crediting):		
Depreciation of owned tangible fixed assets	424,156	448,297
Impairment of owned tangible fixed assets	277,844	300,000
Reversal of past impairment of tangible fixed assets	-	(300,000)
Loss on disposal of tangible fixed assets	1,042	-

The amortisation of intangible assets is included within administration expenses.

The 2023 comparatives are noted as having been restated. The directors have adjusted interest receivable and interest payable in the comparative figures, reducing both by £44,730, on the basis that this represented inter-company transactions and should have been excluded on consolidation. This restatement has no impact on the loss reported for that period nor on the balance sheet presented.

6 Auditor's remuneration

	2024	2023
	£	£
Fees payable to the company's auditor and associates:		
For audit services		
Audit of the financial statements of the group and company	-	-
Audit of the financial statements of the company's subsidiaries	58,000	54,000

7 Employees

The average monthly number of persons (including directors) employed by the group and company during the year was:

	Group 2024 Number	2023 Number	Company 2024 Number	2023 Number
Operations	181	198	-	-
Administration	21	22	-	-
Total	202	220	-	-

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

7	Employees	(Continued)			
	Their aggregate remuneration comprised:				
		Group		Company	
		2024	2023	2024	2023
		£	£	£	£
	Wages and salaries	4,407,277	4,287,852	-	-
	Social security costs	256,443	268,212	-	-
	Pension costs	100,899	96,651	-	-
		<u>4,764,619</u>	<u>4,652,715</u>	<u>-</u>	<u>-</u>
8	Directors' remuneration			2024	2023
				£	£
	Remuneration for qualifying services			186,000	186,000
9	Interest receivable and similar income			2024	2023
				£	£
	Interest income				
	Interest on bank deposits			37,536	18,224
10	Interest payable and similar expenses			2024	2023
				£	£
	Interest on bank overdrafts and loans			614,468	464,814
	Other interest			6,451	43
	Total finance costs			<u>620,917</u>	<u>464,857</u>
11	Taxation			2024	2023
				£	£
	Current tax				
	UK corporation tax on profits for the current period			63,242	41,890
	Adjustments in respect of prior periods			121,048	(80,773)
	Total current tax			<u>184,290</u>	<u>(38,883)</u>
	Deferred tax				
	Origination and reversal of timing differences			414,134	79,152
	Total tax charge			<u>598,424</u>	<u>40,269</u>

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

11 Taxation

(Continued)

The actual charge for the year can be reconciled to the expected charge/(credit) for the year based on the profit or loss and the standard rate of tax as follows:

	2024 £	2023 £
Profit/(loss) before taxation	1,980,722	(640,588)
Expected tax charge/(credit) based on the standard rate of corporation tax in the UK of 25.00% (2023: 19.00%)	495,181	(121,712)
Tax effect of expenses that are not deductible in determining taxable profit	11,466	9,462
Change in unrecognised deferred tax assets	(191,190)	108,007
Adjustments in respect of prior years	121,048	(80,773)
Permanent capital allowances in excess of depreciation	-	(1,544)
Depreciation on assets not qualifying for tax allowances	62,584	47,677
Fair value gain on investment properties	(314,799)	-
Deferred taxation movement	414,134	79,152
Taxation charge	598,424	40,269

In addition to the amount charged to the profit and loss account, the following amounts relating to tax have been recognised directly in other comprehensive income:

	2024 £	2023 £
Deferred tax arising on: Revaluation of property	(16,964)	(14,076)

12 Intangible fixed assets

Group	Goodwill £	Other Intangibles £	Total £
Cost			
At 1 April 2023 and 31 March 2024	1,300,000	10,365	1,310,365
Amortisation and impairment			
At 1 April 2023 and 31 March 2024	1,300,000	10,365	1,310,365
Carrying amount			
At 31 March 2024	-	-	-
At 31 March 2023	-	-	-

The company had no intangible fixed assets at 31 March 2024 or 31 March 2023.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

13 Tangible fixed assets

Group	Freehold land and buildings	Motor ferry	Fixtures, fittings and equipment	Plant, machinery and motor vehicles	Total
	£	£	£	£	£
Cost or valuation					
At 1 April 2023	34,823,401	1,900,000	2,079,239	209,538	39,012,178
Additions	18,174	-	151,896	-	170,070
Disposals	-	-	(12,283)	(35,000)	(47,283)
Transfers	(3,862,581)	-	-	-	(3,862,581)
At 31 March 2024	30,978,994	1,900,000	2,218,852	174,538	35,272,384
Depreciation and impairment					
At 1 April 2023	9,002,945	1,153,571	1,716,445	158,350	12,031,311
Depreciation charged in the year	250,405	67,857	100,682	5,212	424,156
Impairment losses	277,844	-	-	-	277,844
Eliminated in respect of disposals	-	-	(12,282)	(1,458)	(13,740)
Transfers	(2,012,581)	-	-	-	(2,012,581)
At 31 March 2024	7,518,613	1,221,428	1,804,845	162,104	10,706,990
Carrying amount					
At 31 March 2024	23,460,381	678,572	414,007	12,434	24,565,394
At 31 March 2023	25,820,456	746,429	362,794	51,188	26,980,867

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

13 Tangible fixed assets

(Continued)

Analysis of cost or valuation at 31 March 2024

Valuation	11,985,937	1,900,000	-	-	13,885,937
Cost	18,993,057	-	2,218,852	174,538	21,386,447
	<u>30,978,994</u>	<u>1,900,000</u>	<u>2,218,852</u>	<u>174,538</u>	<u>35,272,384</u>

The company had no tangible fixed assets at 31 March 2024 or 31 March 2023.

Land and buildings held within the subsidiary company operating the motor ferry, were revalued at the date of transition to FRS102 by professional valuers not connected with the company at £12,370,000. In addition the motor ferry was valued at £1,900,000. This total valuation has then been "frozen" under the transitional arrangements included within FRS102.

On a historical cost basis the freehold land and buildings revalued would be included at a cost of £511,015 and book value at 31 March 2024 of £138,712. The motor ferry would be included at a cost of £2,123,690 and a nil net book value at 31 March 2024.

Included within land and buildings is a two and a half mile strip of land which is occupied for the ferry road and is held in perpetuity under the terms of The Bournemouth-Swanage Motor Road and Ferry Act 1923.

14 Investment property

	Group 2024 £	Company 2024 £
Fair value		
At 1 April 2023 and 31 March 2024	11,362,961	-
Net gains or losses through fair value adjustments	1,537,039	-
At 31 March 2024	<u>12,900,000</u>	<u>-</u>

The fair value of the investment property has been arrived at on the basis of the directors valuation, as well as an independent valuation for two of the properties as at 31 March 2024. The valuation was made on a fair value basis by reference to market evidence of transaction prices for similar properties, and was completed by an independent valuer. The carrying value of £12,900,000, is considered to represent the fair value of these properties.

If investment properties were stated on a historic cost basis rather than a fair value basis, the cost would be stated as £4,348,355 (2023: £4,348,355).

15 Fixed asset investments

		Group 2024 £	2023 £	Company 2024 £	2023 £
	Notes				
Investments in subsidiaries	16	<u>-</u>	<u>-</u>	<u>518,740</u>	<u>518,740</u>

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

15 Fixed asset investments (Continued)

Movements in fixed asset investments Company	Shares in subsidiaries £
Cost or valuation	
At 1 April 2023 and 31 March 2024	518,740
Carrying amount	
At 31 March 2024	518,740
At 31 March 2023	518,740

16 Subsidiaries

Details of the company's subsidiaries at 31 March 2024 are as follows:

Name of undertaking	Registered office	Nature of business	Class of shares held	% Held Direct
Review Hotels Limited	England	Hotelier	Ordinary	100.00
Silvermist Properties (Chelmsford) Limited	England	Commercial property	Ordinary	100.00
Silvermist Properties (Residential Developments) Limited	England	Residential property	Ordinary	100.00
The Bournemouth-Swanage Motor Road and Ferry Company	England	Operation of a motor ferry	Ordinary	100.00

17 Stocks

	Group 2024 £	2023 £	Company 2024 £	2023 £
Raw materials and consumables	456,141	406,643	-	-
Finished goods and goods for resale	2,064,482	185,388	-	-
	<u>2,520,623</u>	<u>592,031</u>	<u>-</u>	<u>-</u>

The carrying amount of stock includes £1,850,000 (2023: £Nil) of property classified as held for sale. This relates to the Rutland Arms Hotel.

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

18 Debtors

	Group 2024	2023	Company 2024	2023
Amounts falling due within one year:	£	£	£	£
Trade debtors	344,109	246,752	-	-
Other debtors	60,214	1,182,669	-	-
Prepayments and accrued income	357,548	248,839	-	1,286
	<u>761,871</u>	<u>1,678,260</u>	<u>-</u>	<u>1,286</u>

19 Creditors: amounts falling due within one year

	Notes	Group 2024	2023	Company 2024	2023
		£	£	£	£
Bank loans and overdrafts	21	13,500,312	21,290,616	-	-
Trade creditors		380,650	1,023,183	-	-
Corporation tax payable		63,099	41,890	-	-
Other taxation and social security		195,612	156,788	-	572
Deferred income		305,000	415,000	-	-
Other creditors		514,355	484,844	-	-
Accruals		423,351	427,619	-	-
		<u>15,382,379</u>	<u>23,839,940</u>	<u>-</u>	<u>572</u>

The bank overdraft is secured by a fixed and floating charge over the present and future assets of the group.

The £8,000,000 bank loan is secured by first priority legal charge over all freehold property together with an unlimited cross company guarantee across the group.

20 Creditors: amounts falling due after more than one year

	Notes	Group 2024	2023	Company 2024	2023
		£	£	£	£
Bank loans and overdrafts	21	<u>8,000,000</u>	<u>-</u>	<u>-</u>	<u>-</u>

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

21 Loans and overdrafts

	Group 2024 £	2023 £	Company 2024 £	2023 £
Bank loans	8,000,000	8,000,000	-	-
Bank overdrafts	13,500,312	13,290,616	-	-
	<u>21,500,312</u>	<u>21,290,616</u>	<u>-</u>	<u>-</u>
Payable within one year	13,500,312	21,290,616	-	-
Payable after one year	8,000,000	-	-	-
	<u>21,500,312</u>	<u>21,290,616</u>	<u>-</u>	<u>-</u>

22 Deferred taxation

Deferred tax assets and liabilities are offset where the group or company has a legally enforceable right to do so. The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes:

Group	Liabilities 2024 £	Liabilities 2023 £
Accelerated capital allowances	1,200,437	1,129,000
Revaluations	545,427	572,542
Investment property revaluations	543,680	395,680
Tax losses	-	(204,848)
	<u>2,289,544</u>	<u>1,892,374</u>

The company has no deferred tax assets or liabilities.

	Group 2024 £	Company 2024 £
Movements in the year:		
Liability at 1 April 2023	1,892,374	-
Charge to profit or loss	414,134	-
Credit to other comprehensive income	(16,964)	-
Liability at 31 March 2024	<u>2,289,544</u>	<u>-</u>

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

23 Retirement benefit schemes

	2024	2023
Defined contribution schemes	£	£
Charge to profit or loss in respect of defined contribution schemes	100,899	96,651

A defined contribution pension scheme is operated for all qualifying employees. The assets of the scheme are held separately from those of the group in an independently administered fund.

24 Share capital

Group and company	2024	2023	2024	2023
Ordinary share capital	Number	Number	£	£
Issued and fully paid				
Ordinary of 50p each	3,490	3,490	1,745	1,745

25 Reserves

Other reserves

These arise on the historic revaluation of fixed assets by subsidiary companies and are not distributable.

Profit and loss reserve

Included within the profit and loss reserve is £1,752,611 (2023: £363,572) in respect of revaluations of investment property which are not distributable to the members.

Motor ferry replacement reserve

In March 2019, the company obtained a professional estimate of the cost of building a diesel electric powered motor ferry to replace the company's existing vessel. The approximate cost including fees was £11,418,000. Allowing for inflationary increases to these estimated costs and based on the date of renewal, if full provision was being made for renewal, less what the company are able to borrow for this purpose, the Motor Ferry Replacement Reserve at the balance sheet date would have totalled £8,397,680.

Transfers are made from the profit and loss account to the Motor Ferry Replacement Reserve, to the extent that reserves are available within the motor ferry subsidiary. In the current period transfers were made from the profit and loss reserve to the Motor Ferry Replacement Reserve totalling £271,892 (2023: £Nil).

26 Financial commitments, guarantees and contingent liabilities

Group

The company, together with four other group companies, has entered into a composite guarantee in respect of bank overdrafts of those companies. There is a right to set off incorporated within the cross guarantee. The net overdraft indebtedness of the group companies at the year end was £Nil (2023: £Nil).

Company

There is a cross guarantee between Fairacres Group Limited and its subsidiaries in respect of bank overdraft borrowings. At the balance sheet date, the bank net indebtedness of these subsidiary companies amounted to £Nil (2023: £Nil).

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

FOR THE YEAR ENDED 31 MARCH 2024

27 Operating lease commitments

Lessor

At the reporting end date the group had contracted with tenants for the following minimum lease payments:

	Group		Company	
	2024	2023	2024	2023
	£	£	£	£
Within one year	830,326	648,220	-	-
Between two and five years	1,960,522	1,472,863	-	-
In over five years	249,882	673,333	-	-
	<u>3,040,730</u>	<u>2,794,416</u>	<u>-</u>	<u>-</u>

28 Related party transactions

The company has taken advantage of the exemption available in FRS102 whereby it has not disclosed transactions with any wholly owned subsidiary undertaking.

At the balance sheet date the company was owed £9,200,000 (2023: £9,200,000) by its subsidiary undertakings. A provision of £9,200,000 (2023: £9,200,000) has been made against this balance.

29 Controlling party

There is no ultimate controlling party.

30 Analysis of changes in net debt - group

	1 April 2023	Cash flows	31 March 2024
	£	£	£
Cash at bank and in hand	13,826,576	1,205,102	15,031,678
Bank overdrafts	(13,290,616)	(209,696)	(13,500,312)
	<u>535,960</u>	<u>995,406</u>	<u>1,531,366</u>
Borrowings excluding overdrafts	(8,000,000)	-	(8,000,000)
	<u>(7,464,040)</u>	<u>995,406</u>	<u>(6,468,634)</u>

FAIRACRES GROUP LIMITED

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED) FOR THE YEAR ENDED 31 MARCH 2024

31 Cash generated from/(absorbed by) group operations	2024	2023
	£	£
Profit/(loss) for the year after tax	1,382,298	(680,857)
Adjustments for:		
Taxation charged	598,424	40,289
Finance costs	620,917	464,857
Investment income	(37,536)	(18,224)
Loss on disposal of tangible fixed assets	1,042	-
Fair value gain on investment properties	(1,537,039)	-
Depreciation and impairment of tangible fixed assets	702,000	448,297
Movements in working capital:		
Increase in stocks	(78,592)	(127,093)
Decrease/(increase) in debtors	916,389	(1,086,505)
(Decrease)/increase in creditors	(578,464)	575,669
Decrease in deferred income	(110,000)	(85,000)
Cash generated from/(absorbed by) operations	1,879,439	(468,587)

Appendix B

APPLICATION AS SUBMITTED

Proposed Tolls		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed discount		Proposed toll		Proposed 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PROPOSED REVISIONS

Proposed Tolls		Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	Proposed toll	Proposed discount	
Effective from:		01/04/2024		01/04/2025		01/04/2026		01/04/2027		01/04/2028		01/04/2029		01/04/2030		01/04/2031		01/04/2032		01/04/2033		01/04/2034		01/04/2035		01/04/2036		01/04/2037		01/04/2038		01/04/2039						
Class 1	Pedestrian	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.95		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29						
Class 2	Pedal or Motor Cycle	1.00		1.75		1.77		1.80		1.84		1.88		1.91		1.95		1.99		2.03		2.07		2.11		2.16		2.20		2.24		2.29						
Class 3	Passenger vehicle < 16 persons (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20						
Class 4	Passenger vehicle > 16 persons (Coaches)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		15.76		16.08		16.40						
Class 5	Goods vehicle < 3,500kgs (Cars)	5.30		6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20						
Class 6	Goods vehicle 3,500kgs - 20,000kgs (Trucks)	10.60		12.52		12.72		12.93		13.19		13.45		13.72		14.00		14.28		14.56		14.86		15.15		15.46		15.76		16.08		16.40						
Class 7	Book of 50 tickets for Pedestrians	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	81.70	24.00%	83.60	24.00%	85.12	24.00%	87.02	24.00%					
Class 7b	Book of 100 tickets for Pedestrians	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%	164.88	28.00%					
Class 9	Book of 50 tickets for cycles	45.00	10.00%	49.72	43.18%	55.25	37.58%	61.88	31.25%	69.92	24.00%	71.44	24.00%	72.58	24.00%	74.10	24.00%	75.62	24.00%	77.14	24.00%	78.66	24.00%	80.18	24.00%	81.70	24.00%	83.60	24.00%	85.12	24.00%	87.02	24.00%					
Class 9b	Book of 100 tickets for cycles	85.00	15.00%	93.94	46.32%	104.45	40.99%	117.10	34.94%	132.48	28.00%	135.36	28.00%	137.52	28.00%	140.40	28.00%	143.28	28.00%	146.16	28.00%	149.04	28.00%	151.92	28.00%	155.52	28.00%	158.40	28.00%	161.28	28.00%	164.88	28.00%					
Class 10	Book of 10 tickets for Motor Cars	38.16	28.00%	40.05	36.03%	42.61	33.00%	45.88	28.98%	50.08	24.00%	51.07	24.00%	52.14	24.00%	53.20	24.00%	54.26	24.00%	55.33	24.00%	56.47	24.00%	57.53	24.00%	58.75	24.00%	59.89	24.00%	61.10	24.00%	62.32	24.00%					
Class 11	Book of 50 tickets for Motor Cars	180.20	32.00%	189.14	39.57%	201.40	36.67%	217.05	32.80%	237.24	28.00%	241.92	28.00%	246.96	28.00%	252.00	28.00%	257.04	28.00%	262.08	28.00%	267.48	28.00%	272.52	28.00%	278.28	28.00%	283.68	28.00%	289.44	28.00%	295.20	28.00%					
Class 12	Book of 10 tickets for Goods Vehicles (Trucks)	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.98%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%	124.64	24.00%					
Class 13	Book of 50 tickets for Goods Vehicles (Trucks)	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%	590.40	28.00%					
Class 14	Book of 10 tickets for Buses & Coaches	76.32	28.00%	80.09	36.03%	85.23	33.00%	91.82	28.98%	100.24	24.00%	102.22	24.00%	104.27	24.00%	106.40	24.00%	108.53	24.00%	110.66	24.00%	112.94	24.00%	115.14	24.00%	117.50	24.00%	119.78	24.00%	122.21	24.00%	124.64	24.00%					
Class 15	Book of 50 tickets for Buses & Coaches	360.40	32.00%	378.29	39.57%	402.80	36.67%	434.37	32.81%	474.84	28.00%	484.20	28.00%	493.92	28.00%	504.00	28.00%	514.08	28.00%	524.16	28.00%	534.96	28.00%	545.40	28.00%	556.56	28.00%	567.36	28.00%	578.88	28.00%	590.40	28.00%					
	Toll Road			6.26		6.36		6.46		6.59		6.72		6.86		7.00		7.14		7.28		7.43		7.57		7.73		7.88		8.04		8.20						

Appendix C



Why are cars getting bigger? A deep dive into how UK regulations are enabling car size growth

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Contents

1	Introduction	1
2	Impacts of Big Cars	2
2.1	Car size over time	2
2.2	Sustainability impacts of bigger cars	3
2.3	Health and safety impacts of bigger cars	3
2.4	Road space and damage impacts of bigger cars	4
3	What Influences Car Size	5
3.1	What are regulations?	5
3.2	Current manufacturing regulations	5
3.3	Current taxes	6
3.4	Current licensing	7
3.5	Current design regulations and guidance	8
3.6	Car size affordability	8
3.7	Summary	8
4	In-depth Analysis of Design Regulations and Guidance	9
4.1	Design regulations	9
4.2	Design guidance	10
4.3	Regional design guidance	11
4.4	Discussion	11
5	Recommendations	15
6	Conclusion	16
7	References	17
	Appendix A	21
	Appendix B	22

1 Introduction

Cars are getting bigger. UK engineering regulations are changing to keep up with the growth, but should they?

The aim of this paper is to outline the current problems with bigger cars, the pitfalls of the current regulatory framework that have enabled this growth, and the changes to design guidance that could be adopted to limit car size growth.

A review of current design regulations and guidance specifying parking bay dimensions has been undertaken. A selection of local authority guidance has also been included.

This report does not comment on accessible parking spaces or parent and child parking spaces.

The terms 'big' and 'large' car have been used interchangeably throughout this report to refer to vehicles bigger than micro cars, super mini cars, or small family vehicles. SUV refers to Sports Utility Vehicle.

2 Impacts of Big Cars

2.1 Car size over time

In the UK, cars are getting bigger, and bigger cars like SUVs are becoming more popular. **Figure 1** compares the most common licensed car – the Ford Fiesta in the UK (1.29 million cars licensed in 2021) (RAC foundation, 2023) with the most popular new licensed car – the Nissan Qashqai (42,704 cars registered in 2022) (Holding, 2022). This shows cars in the UK are changing, from compact cars to SUVs.



Figure 1. Ford Fiesta (JA8) 5-door Hatchback 2008 compared with Nissan Qashqai (J12) SUV 2021 (carsized, 2023).

In Europe, the popularity of SUVs has been rapidly increasing over the past decade, making up almost half of new car sales (The International Council on Clean Transport, 2022) see Appendix A. 1. **Figure 2** shows an increase from 1.3 million new SUVs purchased in 2010 to 4.5 million in 2021. The rise in SUVs can account for the increase in average mass of new cars in the EU and the UK where the average mass of new cars has increased to 1,457kg, 3% higher than in 2019 and 15% above 2001 levels (The International Council on Clean Transport, 2022).



Figure 2. New passenger cars by type in million units, % share in the EU from 2010 to 2021 (ACEA, 2022).

2.2 Sustainability impacts of bigger cars

From 2001 – 2017 trends showed a decrease in the average CO₂ emissions of passenger vehicles in the EU and UK. However, since 2017 these emissions have begun to increase, largely driven by the uptake in SUV use (European Environment Agency, 2020).

Weight, engine power and frontal area size are all factors that increase fuel consumption. The bigger the vehicle, whether internal combustion or electric, the lower the fuel efficiency and higher emissions. The average emissions of new petrol SUVs are around 10% higher than the average emissions of new non-SUV petrol cars (European Environment Agency, 2020), but when comparing all SUVs to medium cars they consume about 20% more energy. Globally, SUVs are one of the top causes of energy related CO₂ emissions growth over the last 10 years (IEA, 2021).

Whilst electric vehicles contribute significantly lower CO₂ emissions over their lifetime when compared to internal combustion engine vehicles, the growth in electric vehicles is not rising quick enough to offset the increased emissions from all SUVs (IEA, 2023).

2.3 Health and safety impacts of bigger cars

Vehicles cause damage to multiple different groups: passengers, passengers of other vehicles, pedestrians, cyclists and other vulnerable road users. Although casualties are decreasing in Great Britain there were still 1,558 reported road deaths in 2021 - over 4 people a day (Department for Transport, 2022).

It is widely accepted that modern cars are safer than older cars. The fatality risk has reduced by 56% from the 1950s to 2012 for occupants of average vehicles in the US (United States Department of Transportation, 2023). However, this trend appears to be reversing as in 2022 traffic fatalities in the US reached a 16-year high (United States Department of Transportation, 2022).

As established, modern cars are also bigger which has caused many to believe bigger cars are safer. However, with the rise in fatalities coinciding with the increase in SUVs this is rightly being disputed.

A 2022 study of reported vehicle crashes on pedestrians and cyclists showed that “children are eight times more likely to die when struck by an SUV compared to those struck by a

passenger car”. SUVs are overrepresented in fatalities relative to the proportion of their involvement in crashes – they struck 14.7% of pedestrians and cyclists but were involved in 25.4% of fatalities. Meaning pedestrians and cyclists are more likely to die when being hit by an SUV (Edwards & Leonard, 2022).

A similar 2023 study of reported vehicle crashes on cyclists showed “SUVs inflicted significantly more severe injuries on struck bicyclists compared with cars”, “the typical head injury inflicted by SUVs was 63% more severe than that inflicted by cars” and “SUV crashes were more likely to involve bicyclists being run over and being injured by impacts with the ground” (Monfort & Mueller, 2023).

It is unsurprising that SUVs cause more severe injuries to vulnerable road users. The momentum of a travelling object is a product of its mass and velocity, meaning an SUV will have a higher momentum if travelling at the same speed, when compared to a lower weight car. To reduce their danger, SUVs would be required to have a lower speed limit to counteract their considerably higher mass.

2.4 Road space and damage impacts of bigger cars

In the UK, roads are typically designed for use by specialist vehicles such as emergency vehicles, busses, and HGVs. Currently, these vehicles do not make up a large percentage of licensed vehicles (Department for Transport, 2022). However, the higher the percentage of wider vehicles on the road, the less space there is on the road for vulnerable road users. This is shown in **Figure 3**.

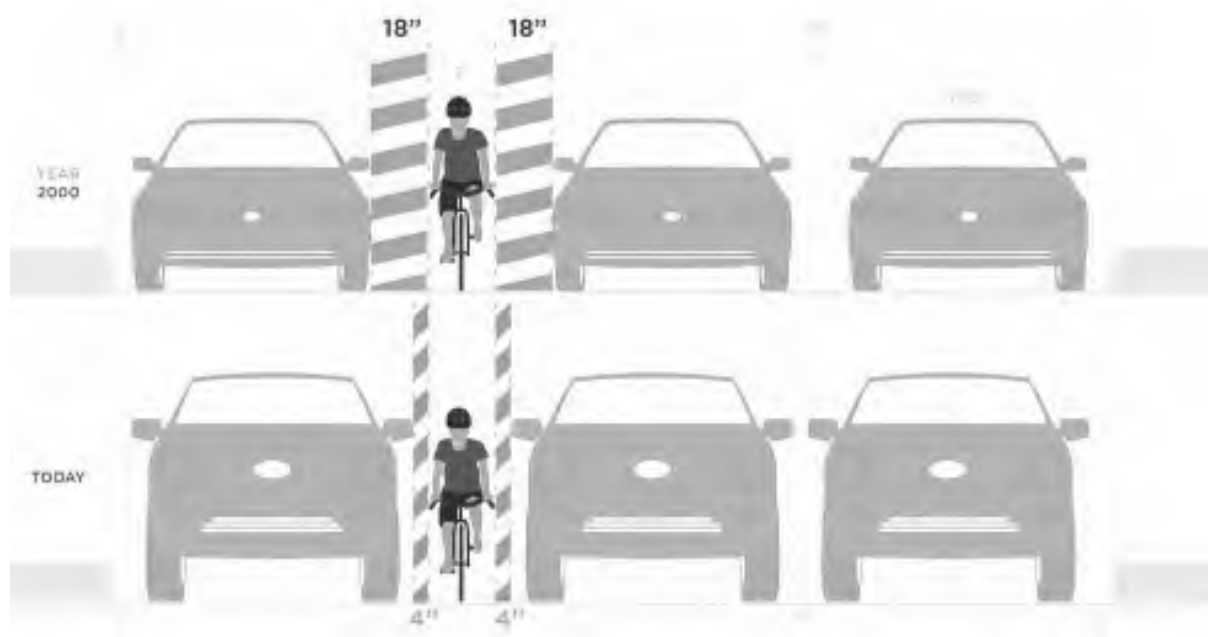


Figure 3. Space available for cyclist comparing standard car to SUV (Hurford, 2022).

It is widely accepted that the damage caused by a vehicle to the road is related to the axle weight to the power four (Yiu, 2020). This means that an SUV that is twice the weight of a car will do roughly 16 times more damage to the carriageway.

3 What Influences Car Size

Car size is influenced by many factors, some of these are outlined in **Figure 4**. This section gives a background to the current vehicle regulatory environment and discusses the key mechanisms currently shaping vehicle size in the UK.

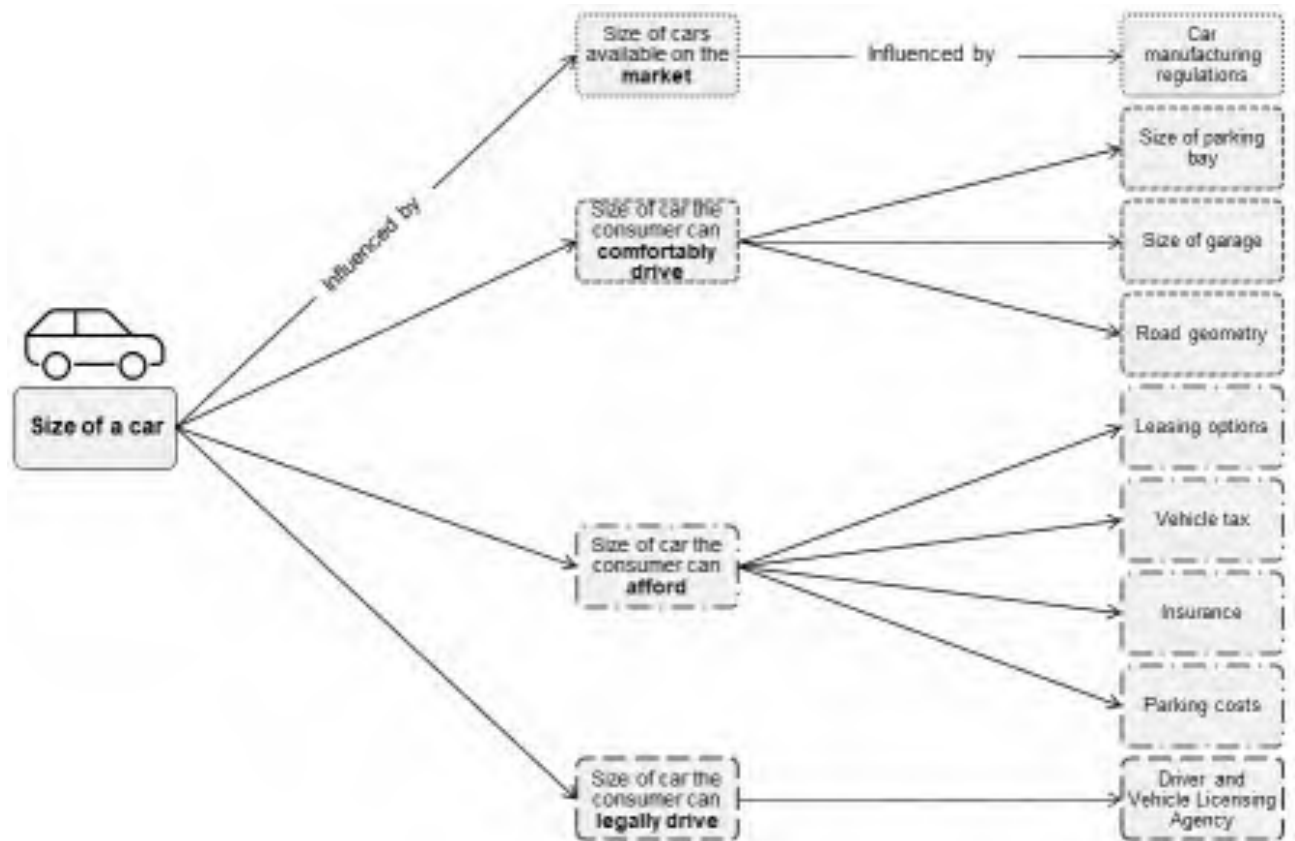


Figure 4. Factors impacting car size in the UK.

3.1 What are regulations?

The National Audit Office states, 'Regulation is used to protect and benefit people, businesses and the environment and to support economic growth' and it uses 'primary or secondary powers to achieve the behaviour change needed to achieve policy objectives' (National Audit Office, 2017).

Regulation has seen a shift since the turn of the century, from regulation in the public interest to regulation in the interest of public choice (Key, 2023). The UK has relatively low levels of regulation compared with other OECD states (National Audit Office, 2017). When governments reduce regulatory burden, the aim is to allow greater freedom for manufacturers and companies.

However, deregulation and privatisation can lead to tombstone legislation whereby changes in public interest only take place after a major loss of life (Carrington, 2019).

3.2 Current manufacturing regulations

There are two main manufacturing regulations that define the maximum dimensions of cars in the UK.

The Road Vehicles (Construction and Use) Regulation 1986 is a UK statutory regulation governing the construction, equipment, and maintenance of vehicles. Sections 7 to 10 set the

maximum limits for motor vehicle dimensions to be 12m in length, 2.5m in width and 3.66m in travelling height for a motor vehicle.

The individual Vehicle Approval (IVA) Inspection Manual determines the road worthiness of a vehicle. It is used for making or importing single or a small number of vehicles. Section 44 sets the maximum limits for passenger vehicle dimensions to be 12m in length, 2.5m in width and a weight that does not exceed the design axle weight (i.e., no maximum).

The maximum allowable dimensions of a passenger vehicle in the UK are therefore 12m in length, 2.5m in width and 3.66m in height. This is about the dimensions of a typical single decker bus in the UK (Lectura, 2023).

3.3 Current taxes

Vehicles are taxed variably in the UK. For cars first registered on or after 1 April 2017 the first year of tax is defined by the vehicle's CO₂ emissions. The higher the emissions, the higher the tax for the first 12 months. This relationship is shown in **Figure 5**. Subsequent annual tax payments are a flat rate depending on the fuel type - £180 for petrol or diesel and £170 for alternative fuel vehicles (hybrids, bioethanol, and liquid petroleum gas). For vehicles with a price list over £40,000 a higher tax of £570 is paid for 5 years before reducing to £180 per annum (£560 and £170 for alternative fuel vehicles) (Vehicle tax rates, 2023).

A higher flat rate of tax for vehicles over £40,000 does more to disincentivise vehicles closest to £40,000 in price rather than higher emitting vehicles. A mid-range vehicle (in terms of emissions) will pay the same vehicle tax in the second year compared to the highest emitting vehicle, this comparison is shown in **Figure 6** and **Figure 7**.

Electric vehicles currently do not pay any vehicle tax in the UK.

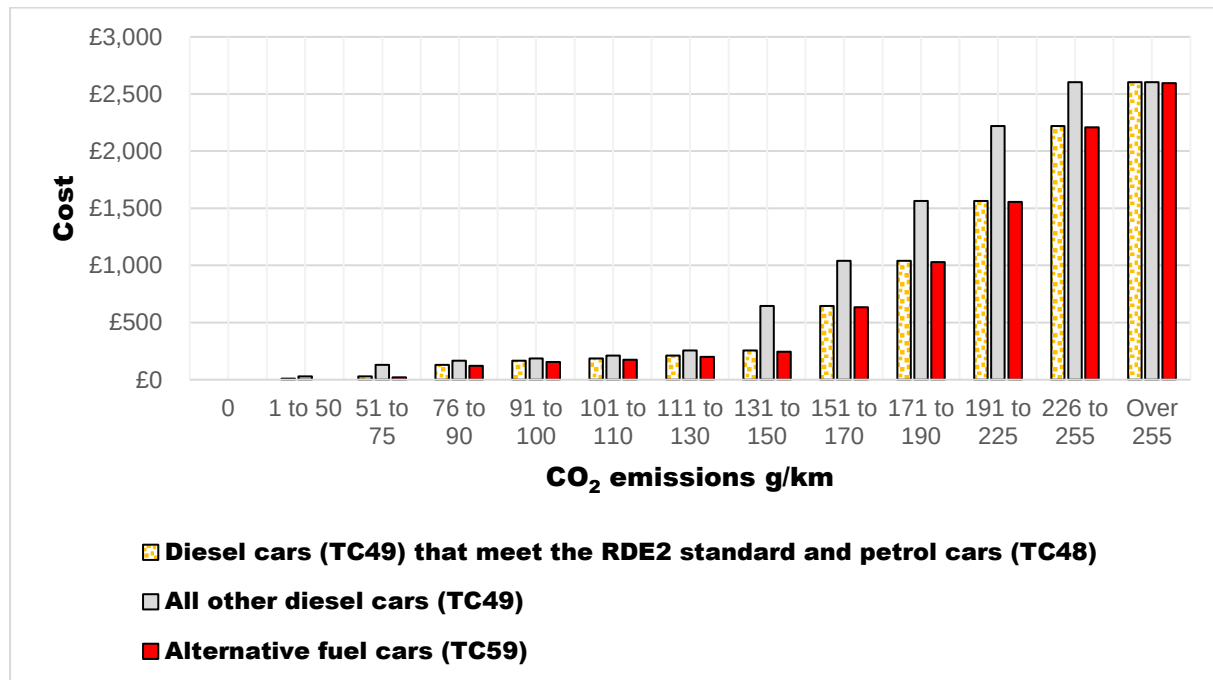


Figure 5. First vehicle tax rates for cars registered on or after 1 April 2017.

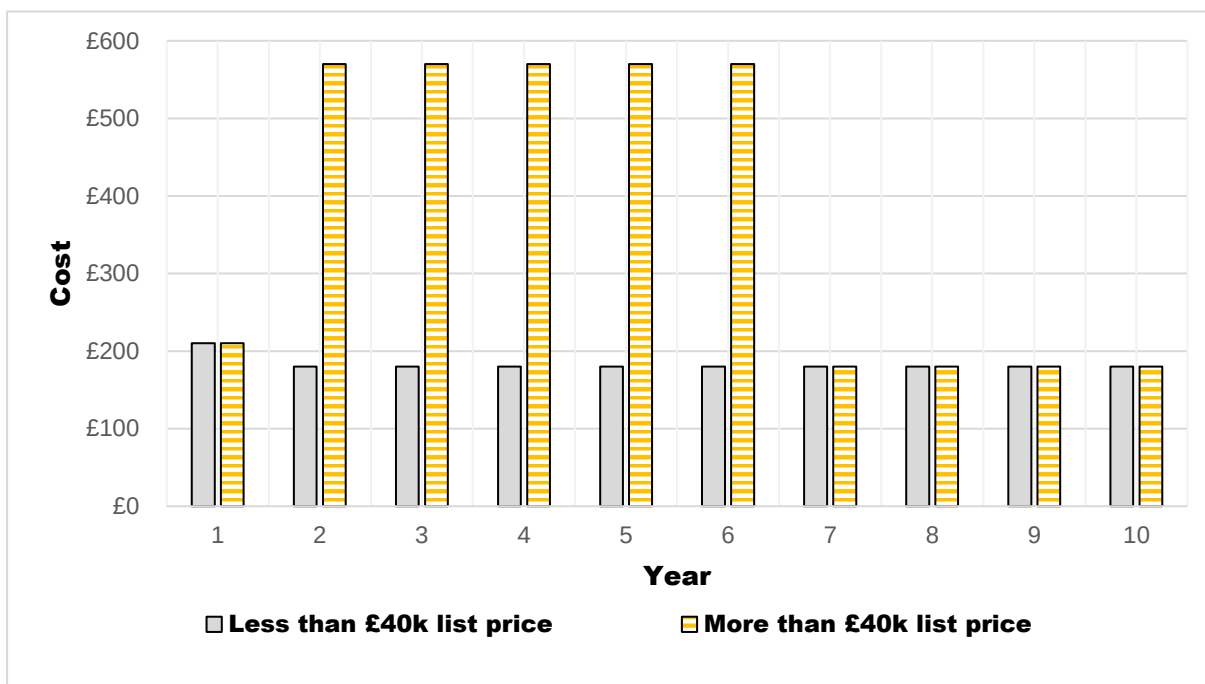


Figure 6. 10-year annual vehicle tax rates for Diesel cars (TC49) that meet the RDE2 standard and petrol cars (TC48) with 111 to 130 g/km emissions, registered on or after 1 April 2017.

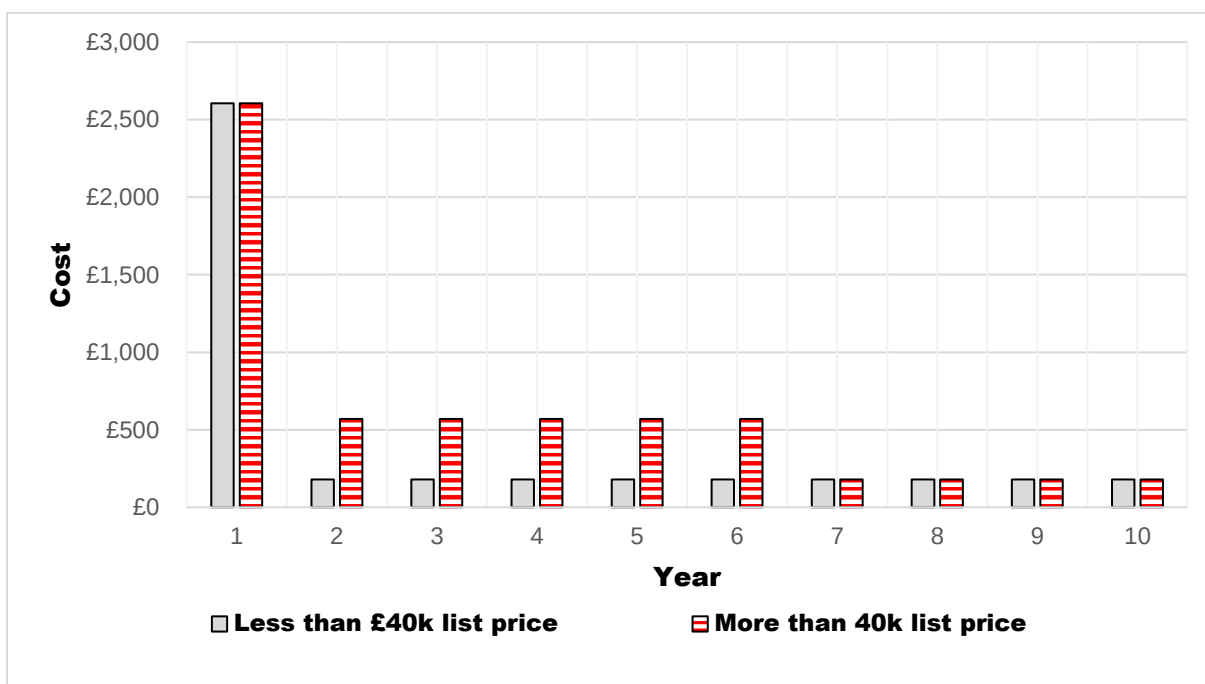


Figure 7. 10-year annual vehicle tax rates for Diesel cars (TC49) that meet the RDE2 standard and petrol cars (TC48) with over 255 g/km emissions, registered on or after 1 April 2017.

3.4 Current licensing

Under a standard drivers' licence (category B) in England, Wales, and Scotland, you can drive vehicles up to 3,500kg maximum authorised mass with up to 8 passenger seats (Driving licence categories, 2023).

If the licence was obtained before 1997 the maximum authorised mass increases to 8250kg. Meaning a significant number of the population hold a driver licence that allows them to drive a considerably heavier vehicle with no extra test required. The number of licence holders this equates to is unknown but could be up to 10 million people (Office for National Statistics, 2023) (National Travel Survey, 2023).

An additional category C1 licence is required to enable category B licence holders to drive vehicles between 3,500 to 7,500kg maximum authorised mass if they obtained their category B licence after 1997.

3.5 Current design regulations and guidance

Regulations, standards, and guidance are common mechanisms to maintain consistency and safety across the built environment. It is important to understand the difference between them and how these differences influence compliance.

Design regulations can be defined as “a document used by a local or national government body to control building practice through a set of statements of acceptable minimum requirements” (Key, 2023).

Design standards can be defined as “an agreed, repeatable way of doing something. It is a published document that contains a technical specification or other precise criteria designed to be used consistently” (The British Standards Institution, 2012). Design regulations often refer to design standards and serve as benchmarks for compliance.

Design guidance “sets out the general design principles and standards that...proposals should follow” (Department for Levelling Up, Housing and Communities, 2019).

It is a legal requirement to follow regulations. Following British Standards is voluntary, but as standards usually set the allowable benchmarks to achieve the regulations, they are heavily linked. There is no legal obligation to follow design guidance.

Section 4 gives an in-depth analysis of design regulations, standards and guidance relating to parking bay size.

3.6 Car size affordability

Although this report does not discuss consumer behaviour, it is important to address that the mechanisms for purchasing and owning a vehicle have changed.

Larger vehicles are in general, more expensive. In recent years it has become increasingly popular to lease a vehicle rather than buy it. This has shifted the threshold of affordability for many as the barrier of high capital expenditure is significantly reduced. Leading many vehicle owners to be up-sold a larger vehicle than they could have originally afforded if leasing was not available.

3.7 Summary

The recent growth in car size suggests that the current measures that can control growth are ineffective. This contradicts the governments aims to reduce road traffic collisions and to reduce transport emissions.

Due to the current manufacturing regulations setting car size limits so high, and current taxes and licensing doing little to limit the size – there is a disproportionate onus left on design guidance. It is rare for markets that cause so many daily fatalities to sit within such a weak regulatory environment.

4 In-depth Analysis of Design Regulations and Guidance

This section presents an in-depth analysis of the current design regulations and guidance related to parking bay size. **Figure 8** outlines the different regulations and guidance associated with parking bay size and where this sits in relation to the vehicle manufacturing regulations.

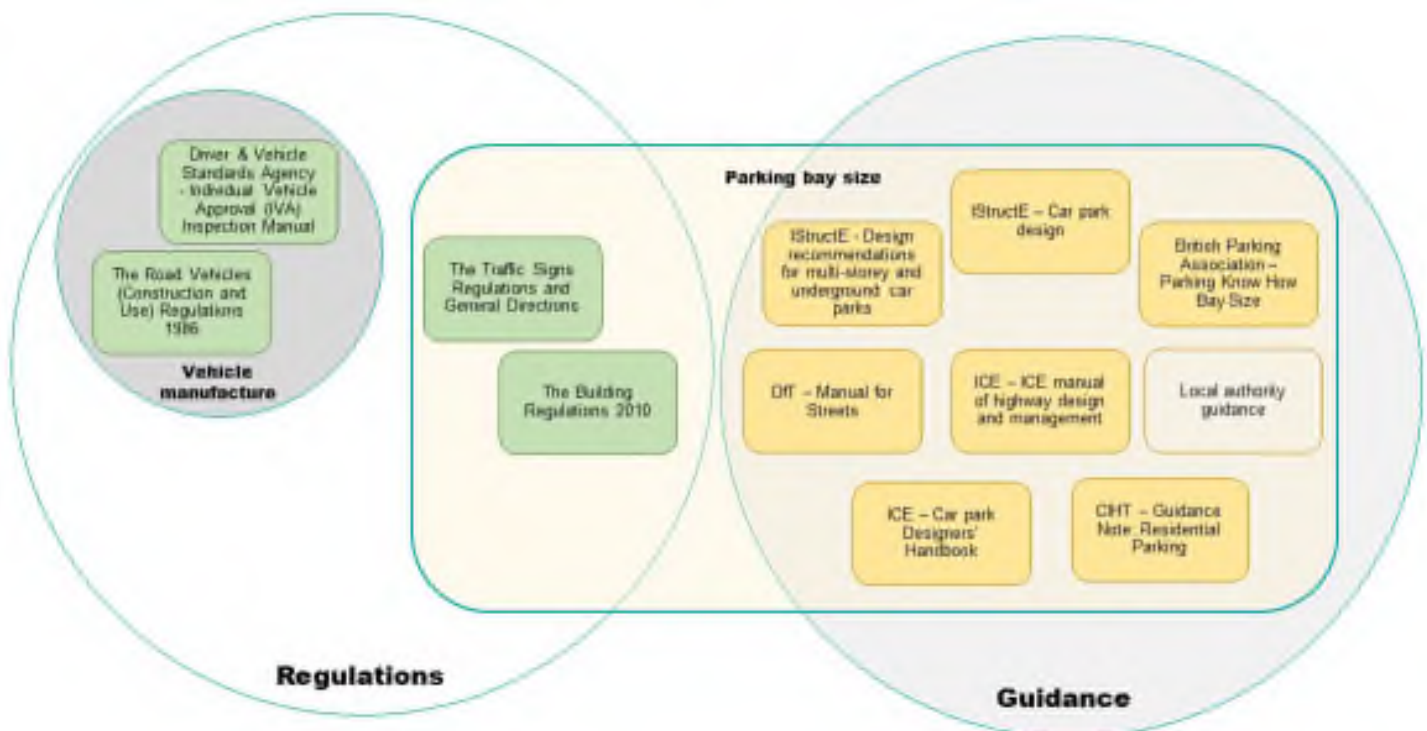


Figure 8. Parking bay size regulations and guidance Venn diagram.

4.1 Design regulations

There are two regulations associated with the size of a parking bay:

1. The Traffic Signs Regulations and General Directions 2016 (Traffic Signs Regulations, 2016).
2. The Building Regulations 2010 (HM Government, 2023).

The Traffic Signs Regulations and General Directions (TSRGD) is the law that sets out the design conditions for traffic signs, signals, crossings, and road markings in Great Britain. This is an important regulation that defines the size of a parking bay.

Schedule 7, Part 4 defines the minimum width of a parking bay to be 1.8m. There is no maximum dimension defined and no minimum length defined.

The previous edition of TSRGD defined a clear maximum and minimum size of a parking bay. Maximum values of 2.7m in width and 6.6m in length and minimum values of 1.8m in width and 4.5m in length. As TSRGD is a regulation defined in law, it means before the latest edition update, a parallel parking space could not legally be bigger than 2.7m x 6.6m (Traffic Signs Regulations, 2002). This change was a deliberate intervention by the Department for Transport to “allow traffic authorities flexibility in determining the bay or parking space size”. In addition to this the DfT states that “In cases where larger vehicles... cannot fit fully within the marking, it is recommended that traffic authorities use discretion over enforcement”. The language used by the DfT regarding the change to TSRGD focusses on the change to traffic signs that will “reduce congestion [and] improve road safety...[and] promote cycling take up

and safety” (Department for Transport, 2016). This ignores the impact of bigger vehicles on the road facilitated by the change to parking bay size regulations and less stringent enforcement.

The Building Regulations are an enforceable regulation for the design of buildings in England. In Appendix A, The Building Regulations 2010 set the size of a standard parking bay to be 2.4m wide by 4.8m long. This should be taken to be a minimum value.

4.2 Design guidance

As parking bay design interacts with multiple different sectors of the built environment, there are multiple design guidance documents that reference the size of a parking bay. The following section covers the main guidance documents used within the built environment sector.

Table 1 summarises the variety of parking bay dimensions provided in the regulations, guidance and regional guidance discussed. See **Appendix B** for guidance excerpts.

Table 1. Design regulations, guidance, and regional guidance dimensions summary.

Type	Title	Parallel Parking		Perpendicular Parking	
		Width	Length	Width	Length
Regulation	The Traffic Signs Regulations and General Directions	1.8m min	-	-	-
	The Building Regulations 2010	-	-	2.4m min	4.8m min
Guidance	The Institution of Structural Engineers – Design recommendations for multi-storey and underground car parks (Fourth edition)	-	-	2.4m min	4.8m min
	British Parking Association – Parking Know How Bay Size	-	-	-	-
	DfT – Manual for Streets	2.0m min	6.0m min	2.4m min	4.8m min
	Institution of Civil Engineers - Car Park Designers' Handbook	-	-	2.5m min	4.8m min
	Institution of Civil Engineers - ICE manual of highway design and management	1.8m min 2.7m max	4.5m min 8.8m max	-	-
Regional guidance	The Essex Design Guide – Design Details Parking Design V.1	2.9m min	6.0m min	2.9m min	5.5m min
	Transport for London – Streetscape Guidance Fourth Edition 2022 Revision 2	1.8m min	-	-	-
	Buckinghamshire Council – Parking guidance for new developments	3.0m min	6.0m min	2.8m min	5.0m min
	Kent Design Guide – Parking Standards	2.5m min	6.0m min	2.5m min	5.0m min

At time of writing, the new IStructE guidance document for the design of car parks had not been published. The IStructE state this new guidance will “reflect the significant changes to vehicular size, weight and manoeuvrability in recent years, to offer modern guidance on parking bay sizes and deck loadings.” (IStructE, 2023).

The British Parking Association is a British based trade association. They encourage the use of larger parking bays and state “good access and wider bays aids efficient use of the parking area.” (British Parking Association, 2016).

The Department for Transport’s Manual for Streets explains how to design, construct, adopt and maintain new and existing residential streets in England and Wales. A new edition of the Manual for Streets is expected (Department for Transport, 2007).

The ICE manual of highway design and management, like other sources, references that “flexibility is allowed in determining the size of bays”. It is, however, the only current guidance document to specify a maximum value for the dimensions of a parking bay. The maximum values specified are 2.7m in width and 8.8m in length. Although these maximum values are likely too large to discourage bigger cars, it is a welcome change to have a maximum limit (Walsh, et al., 2011).

The Chartered Institution of Highways and Transportation do not publish design guidance with specific dimensions, but they do publish a guidance note on residential parking. This document reaffirms (with no challenge), the sentiments in section 51 of Planning Policy Statement 3 (PPS3): that local authorities should set parking standards “without trying to control car ownership” (The Chartered Institution of Highways & Transportation, 2011).

4.3 Regional design guidance

Although there is some national regulation and guidance, it is the local authorities who are required to set parking standards for their area.

In 2011 the coalition government announced the intention to ‘end the war on cars’ which removed national limits on residential parking and sent a clear message to local authorities to stop ‘trying to control car ownership’. These sentiments can be seen in the local authority guidance for parking, with no maximum size limits found for the guidance reviewed.

The aim of this section is to understand if the changes national policy, regulation and guidance has filtered into local authority design guidance. Only sources published after the 2016 change to TSRGD were looked at.

Four local authority design guidance documents have been reviewed and summarised in **Table 1**. The Essex Design Guide, Buckinghamshire Council and The Kent Design Guide all specify parking bays of differing dimensions, all greater than the previous standard dimensions. Buckinghamshire Council specified the biggest bays – parallel bays 3.0m in width and 6.0m in length. This is over 1m wider and 1.5m longer than the typical 1.8 x 4.5m bays (Buckinghamshire Council, 2022).

The Streetscape Guidance is a best practice design guide for London. It is a reference document for most local authorities and designers working in London. Section 10 states limited design requirements for parking bays, only defining a minimum width of 1.8m.

This review of local authority guidance shows clear evidence that parking bays are being designed to be wider and longer to accommodate bigger cars.

4.4 Discussion

The data gathered and presented in **Table 1** has been presented in a series of scatter graphs.

These parking dimensions have been compared to the previous standard size. The previous standard size of a parallel parking bay was 1.8m in width and 4.5m in length as defined in TSRGD 2002. The comparison in **Figure 9** shows that recent guidance all have larger parking bay sizes. The spread of different widths and lengths also show the differences across the design guidance, showing an inconsistent approach to defining parallel parking bay size. When comparing against the maximum bay size (2.7m in width by 6.6m in length), some guidance still exceeded this large dimension.

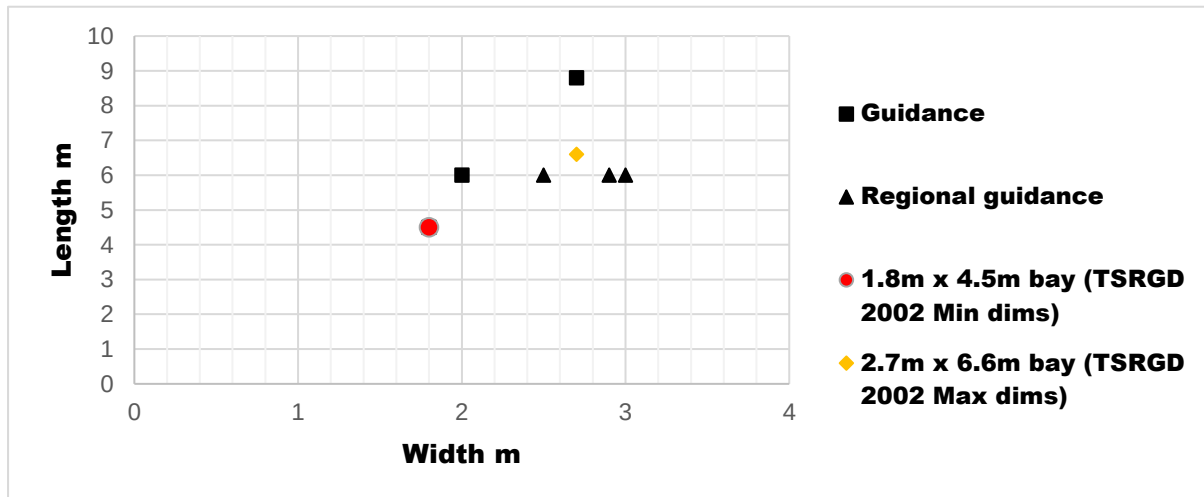


Figure 9. Parallel parking bay regulation and guidance dimensions in comparison to TSRGD 2002 dimensions – scatter.

Figure 10 visualises the difference in area of parking bay size, showing that most guidance is now bigger in area.

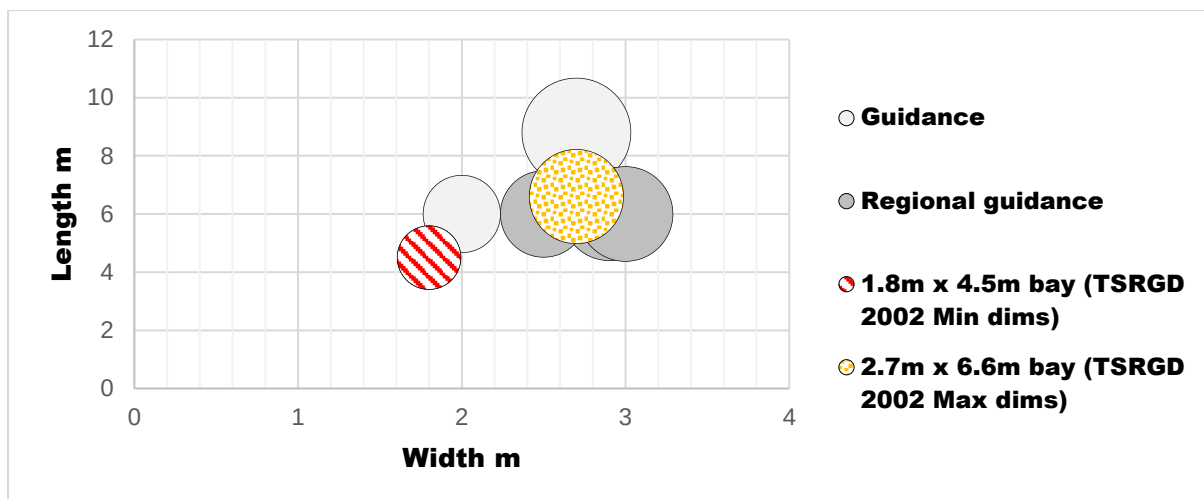


Figure 10. Parallel parking bay regulation and guidance dimensions in comparison to TSRGD 2002 dimensions – bubble scatter.

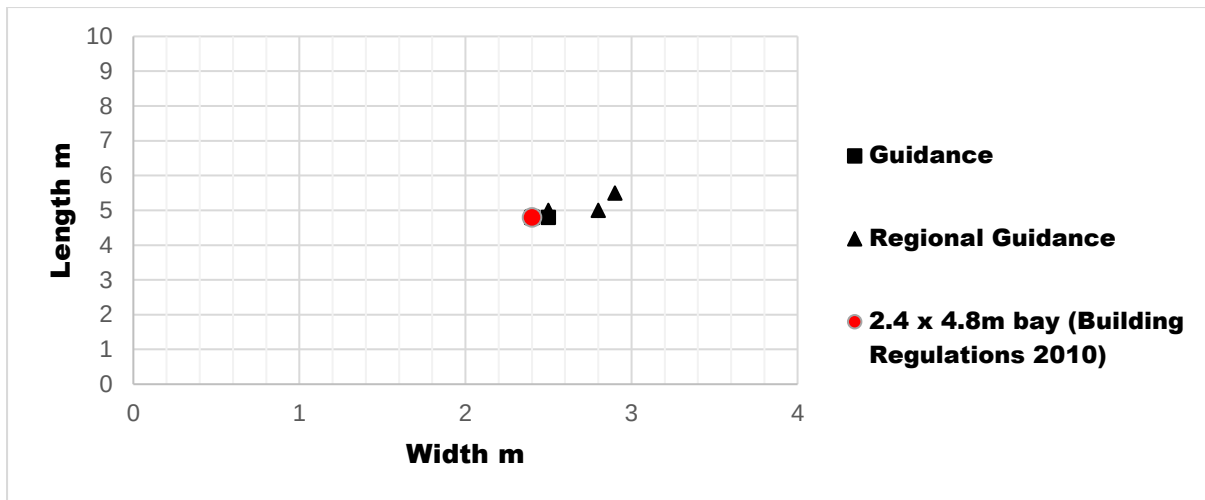


Figure 11. Perpendicular parking bay regulation and guidance dimensions in comparison to minimum Building Regulations 2010 dimensions – scatter.

The comparison in **Figure 11** shows that recent guidance defines larger minimum bay sizes. The different dimensions for perpendicular parking bays are more consistent when compared to parallel bays. This is expected to change when the IStructE revise their car park design guidance. The standard size of a perpendicular parking bay was 2.4m in width and 4.8m in length as defined in The Building Regulations 2010.

The area of perpendicular bays is more consistent, as shown below in **Figure 12**.

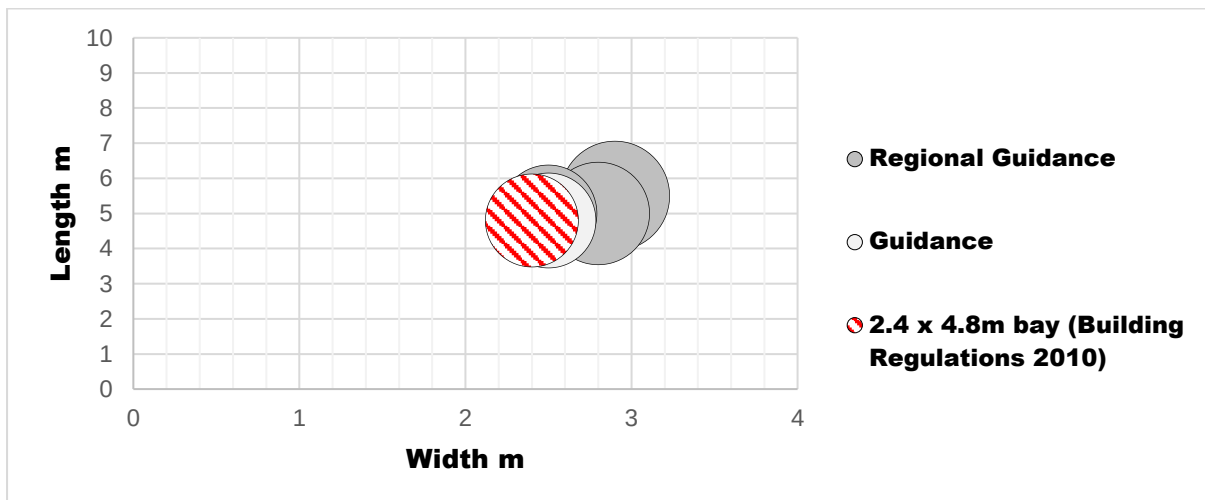


Figure 12. Perpendicular parking bay regulation and guidance dimensions in comparison to minimum Building Regulations 2010 dimensions - bubble scatter

If there was coherent and strict regulation of parking bay size there would not be the variation seen in **Figure 9** - **Figure 12**. A consistent approach is important when designing for the built environment.

Many of the design guidance refer to promoting cycling and walking, at the same time as increasing the space for cars. This is contradictory. The previous sections of this report demonstrate that larger vehicles cause more fatalities and higher severity of injuries to pedestrians and people who cycle. Enabling larger vehicles is likely to result in more large vehicles on the roads leading to higher pedestrian and cycling fatalities. This does not promote cycling or walking.

None of the regulations, guidance, or regional guidance documents discuss the sustainability impacts of parking bay size to any significant detail. From an engineering perspective, it was surprising to see no consideration for measures to limit car ownership or the size of cars. There is limited space, especially in urban environments and no consideration for this goes against core engineering sustainability principles. These documents fail to understand the link between bigger cars and sustainability.

The change to the IStructE design guidance has significant weight and sets a clear tone for the future of car park design. Once this guidance is published, along with local authority design guidance, car spaces will get bigger, increasing the comfort of large car drivers, further encouraging their use.

The constraint of parking bay size is no longer what it used to be, and car manufacturers are pushing the limits of design, to the detriment of people walking and cycling, taxpayers, and the environment.

5 Recommendations

Based on the analysis of car size growth, the impacts of this and the regulations and frameworks that shape this, this report provides the following recommendations:

Design regulation and guidance recommendations:

1. Revise all design regulations, design guidance and local design guidance referring to parking bay size. Set the maximum size of a parking space to be the same in all design guidance and regulations (2.4m in width and 4.8m in length for perpendicular parking bay, 1.8m in width and 4.5m in length for a parallel parking bay).

Other recommendations:

2. Government data should publish data on the type of car. 'Car' is too broad a term and doesn't allow for the analysis of data required to monitor large car trends.
3. Fatality and collision data to define a vehicle type and weight.

Further research:

4. A full analysis of all local authority design guidance should be undertaken, to understand the full spread of parking bay dimensions across the UK.
5. An analysis of vehicle size regulations in different countries.

6 Conclusion

Currently in the UK, you can own and register a vehicle that is 2.5m wide and 12m long. You can drive it on a standard licence if its passenger capacity is fewer than 8 and less than and 3.5 tonnes. Having such a large extent is essentially having no regulation at all, meaning a disproportionate responsibility lies on other factors to reduce car size. Namely car space size.

As Paul Herriotts, professor in transport design at Coventry University states “I believe we are at peak size because our infrastructure won’t let cars get any bigger. Parking spaces don’t allow much room for you to open your door and get in and out and that’s already causing people problems” (Foxall, 2023). However, as this report has highlighted, design regulations and guidance are changing to accommodate larger cars – enabling increases in car size.

As this report has highlighted, bigger cars have adverse impacts on people and the planet. Therefore, this report has set out several key recommendations to increase the evidence base around car size growth and its impact and to limit the further growth of cars in the UK. The key recommendation of this report is to define a maximum size of a parking bay in all UK design guidance and regulations.

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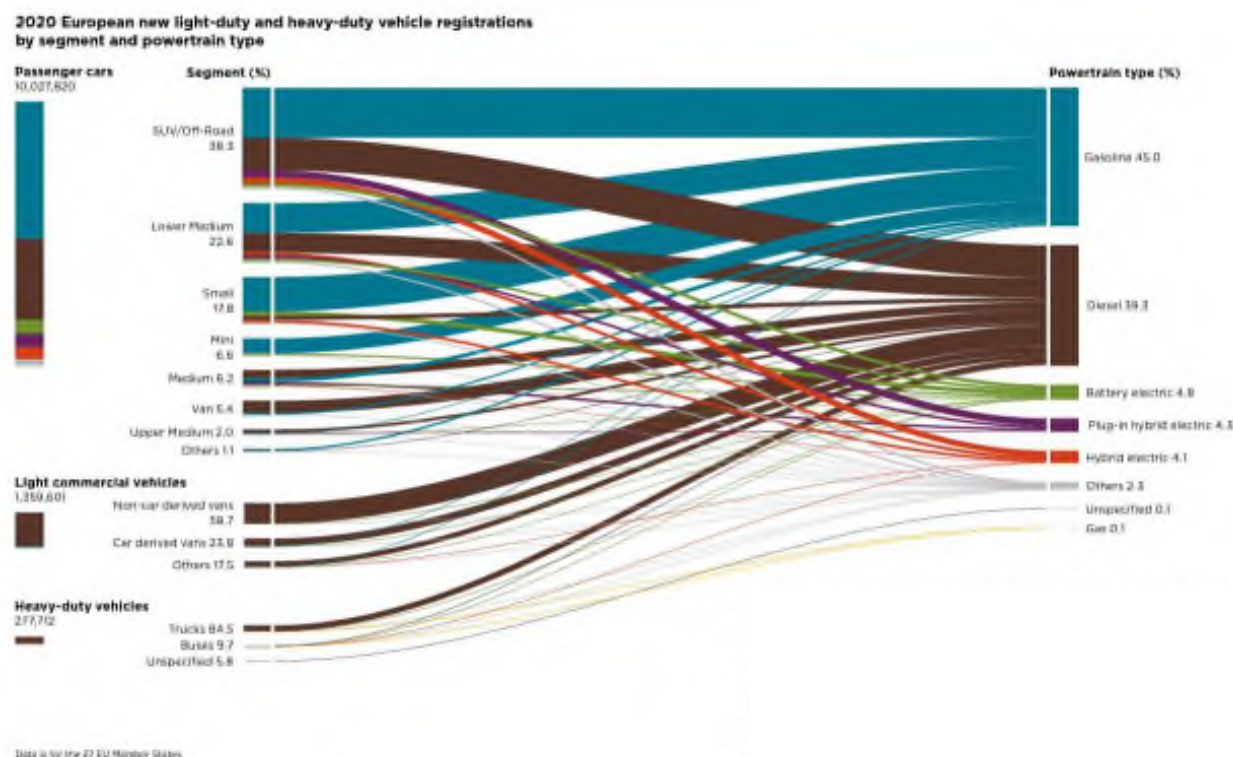
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Appendix A

2020 European new light-duty and heavy-duty vehicle registrations by segment and powertrain type (The International Council on Clean Transport, 2022).



A. 1. 2020 European new light-duty and heavy-duty vehicle registrations by segment and powertrain type (The International Council on Clean Transport, 2022).

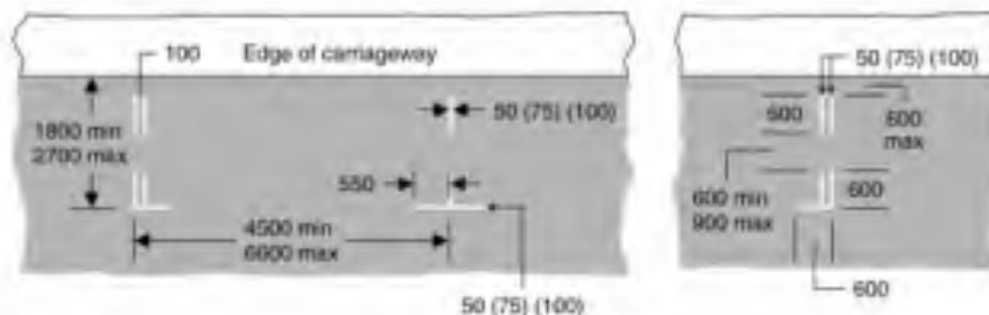
Appendix B

Parking bay dimensions

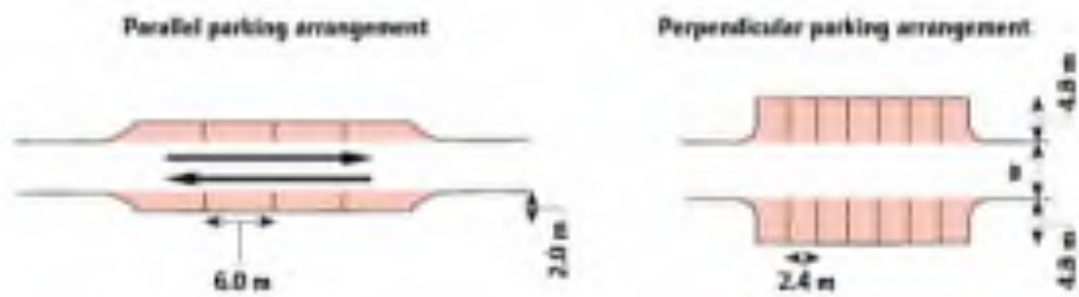
Sign table — Schedule 7, Part 4

(1) Item	(2) Description	(3) Diagram
6	Diagram 1028.4 Alternative types of parking bay— (a) at the edge of the carriageway and situated wholly on either the carriageway or footway; or (b) in the centre of the carriageway or partly on the carriageway and partly on the footway	

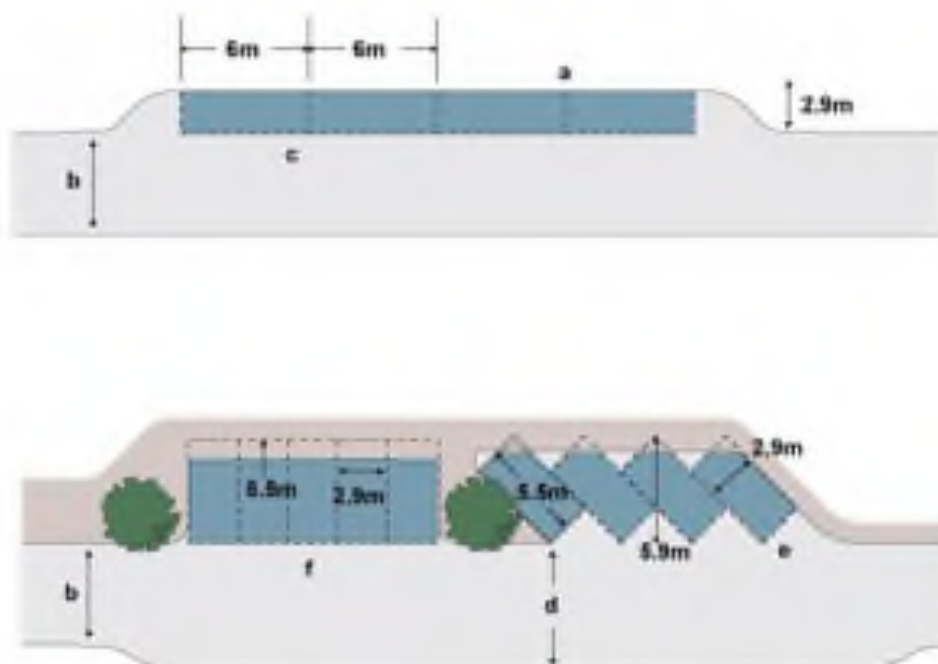
B. 1. TSRGD 2016 Schedule 7, Part 4 (Traffic Signs Regulations, 2016).



B. 2. TSRGD 2002 Parking Bay marked with individual parking spaces (Traffic Signs Regulations, 2002).



B. 3. Manual for Streets suggested parallel and perpendicular parking arrangements (Department for Transport, 2022)



B. 4. Essex design guide parking bay dimensions (Essex Planning Officers Association, 2018).

Appendix D



RMetS
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Volume 44 Number S1 July 2024

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STATE OF THE CLIMATE 2023

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Contents

Volume 44 Number S1

July 2024

Introduction	1
Corrections to State of UK Climate 2022	2
Feedback	2
Executive Summary	2
1. Synoptic Situation	5
1.1 Atmospheric circulation	5
1.2 NAO index	5
2. Temperature	8
2.1 Annual, seasonal and monthly temperature	8
2.2 Central England temperature	16
2.3 Comparison with global mean surface temperature	19
2.4 Daily temperature	19
2.5 Days of air and ground frost	22
2.6 Degree days	25
2.7 Coastal waters	30
3. Precipitation	31
3.1 Annual, seasonal and monthly rainfall	31
3.2 England and Wales precipitation	36
3.3 Daily rainfall	38
3.4 Days of rain and rainfall intensity	41
3.5 Heavy rainfall	43
3.6 Snow	51
4. Sunshine	54
5. Wind	57
5.1 Extreme wind speed	57
5.2 Mean wind speed	63
6. Sea Level	65
6.1 Mean sea level	65
6.2 Extreme sea level	68
7. Extremes	70
7.1 Annual extremes	70
7.2 Monthly temperature extremes	72
8. Climate Change Context	74
8.1 Temperature	74
8.2 Rainfall	79
9. Significant Weather Events	81
9.1 Record warm June	81
9.2 September heatwave	83
9.3 Scotland's wettest 2-day period	85
9.4 Storm Babet	86
9.5 Storm Ciarán	89
9.6 Named storms September to December	92
10. Phenology	94
Author Contributions	96
Acknowledgements	96
Data Availability Statement	97
Orcid	97
References	97
Appendix A: Datasets	100
NAO index	100
HadUK-Grid dataset	101
The observing network in 2023	105
Long-term average grids	106
Annual degree days	106
Consistency and quality control	106
Quality control of record values	107
Areal series	107
Global surface temperature	107
Central England temperature	108
Sea-surface temperature data	109
England and Wales precipitation series	109
Rain gauge and snow depth data	109
Sunshine data	110
Wind data	110
Sea level data	110
Skew surges from highlighted storms and other high levels in 2023	110
Phenology data	112
Appendix B: Time-Series, Trends and Uncertainty	113
Time-series and trends shown in this report	113
Uncertainty estimates	113
Other sources of uncertainty	115
Coefficient of determination	115
Rounding	115
Appendix C: Useful Resources	115
Met Office	115
External links	116
Author Index	117

Cover Images:

Left: Flooding in the Exe valley near Stoke Canon, Devon on 12 January 2023. The South-West main-line railway is in the foreground. The previous day several raingauges in the upper catchment of the River Exe on Exmoor recorded daily totals of 70 to 80mm or more, and more than 40 properties were flooded. Image: Matt Clark, Met Office.

Right: Storm Agnes – the first named storm of the 2023-24 season - approaches the UK on 27 September 2023. The brown area to the south-west of the storm centre is smoke from Canadian wildfires. Image: Met Office, NOAA, NASA.

SPECIAL ISSUE ARTICLE

State of the UK Climate 2023

Mike Kendon¹ | **Amy Doherty**¹  | **Dan Hollis**¹ | **Emily Carlisle**¹  |
Stephen Packman¹ | **Mark McCarthy**²  | **Svetlana Jevrejeva**³  |
Andrew Matthews³  | **Joanne Williams**³  | **Judith Garforth**⁴ | **Tim Sparks**^{5,6} 

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Success is by no means a necessary result of efforts to secure it. Although, therefore, with each consecutive year I have adopted additional precautions against any errors either of observation or computation creeping into this work, it by no means follows that I shall continue to be as successful in keeping them out as I have hitherto been; in fact, in spite of every care, it is hardly reasonable to hope for a continuance of such remarkably small tables of errata as there have been of late years.

G. J. Symons 62, Camden Square, N. W. April 27, 1874 (British Rainfall Organization, 1874).

INTRODUCTION

This report provides a summary of the UK's weather and climate through the calendar year 2023, alongside the historical context for a number of essential climate variables. This is the tenth in a series of annual 'State of the UK Climate' publications, published in the International Journal of Climatology (IJC) since 2017, and an update to

the 2022 report (Kendon et al., 2023). It provides an accessible, authoritative and up-to-date assessment of UK climate trends, variations and extremes based on the most up to date observational datasets of climate quality.

The majority of this report is based on observations of temperature, precipitation, sunshine and wind speed from the UK land weather station network as managed by the Met Office and a number of key partners and co-operating volunteers. The observations are carefully managed so that they conform to current best-practice observational standards as defined by the World Meteorological Organization (WMO). The observations also pass through a range of quality assurance procedures at the Met Office before application for climate monitoring. Time series of near-coast sea-surface temperature and sea-level are also presented, and in addition there is a short section on phenology that provides dates of 'first leaf' and 'bare tree' indicators for four common shrub or tree species plus several other indicators. The reliance of this report on these observations highlights the ongoing need to maintain the observation networks, in particular the UK land weather station network, into the future. This is vital if the UK's climate monitoring capability is to be continued.

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National and regional statistics in this report are from the HadUK-Grid dataset which is the principal source of data (Hollis et al., 2019). County-level statistics are also provided in some sections. Temperature and rainfall series from this dataset extend back to 1884 and 1836, respectively. Details of the datasets used throughout this report and how the various series which are presented are derived are provided in the Appendices A–C.

The report presents summary statistics for the most recent year 2023 and the most recent decade 2014–2023 against the 30-year standard climate normal period 1991–2020 and the baseline period 1961–1990, following World Meteorological Organization climatological best practice (WMO, 2017). The baseline reference period 1961–1990 provides a consistent reference period used throughout the series of State of UK Climate reports and more widely for historical comparison, climate change monitoring and climate modelling. The full series provides longer-term context, while a comparison is also made to centennial averages for the Central England Temperature (CET) series.

The decade 2014–2023 provides a 10-year ‘snapshot’ of the most recent experience of the UK’s climate and how it compares to historical records. Differences between 2014 and 2023, and the 30-year reference periods may reflect shorter-term decadal variations as well as long-term trends. For this annual publication, the most recent decade (currently 2014–2023) changes every year, while the most recent 30-year reference period (currently 1991–2020) changes every decade. The reference period 1991–2020 does not overlap with 1961–1990.

Throughout the report’s text the terms ‘above normal’ and ‘above average’ and so on refer to the 1991–2020 reference period unless otherwise stated. The majority of maps in this report show the year 2023 relative to 1991–2020—that is, they are anomaly maps that show the spatial variation in this difference from average. Some anomaly maps relative to 1961–1990 are also included. Maps of actual values are in most cases not displayed because these are dominated by the underlying climatology, which is strongly influenced, for example, by elevation and distance from the coast. For this report, this is of a lesser interest than the year-to-year variability.

These data are presented to show what has happened in recent years, not necessarily what is expected to happen in a changing climate. However, two figures showing UK Climate Projections (UKCP) for annual mean temperature and rainfall are included to provide future context to 2100.

Values quoted in tables throughout this report are rounded, but where the difference between two such values is quoted in the text (e.g., comparing the most

recent decade with 1991–2020), this difference is calculated from the original unrounded values.

Corrections to State of UK Climate 2022

The executive summary and main text in the report stated: ‘The most recent decade 2013–2022 has had 4%/7% fewer days of air and ground frost per year compared with 1991–2020 and 15%/23% fewer than 1961–1990’. These were incorrectly reported as percentages instead of actual days. The corrected sentence is ‘the most recent decade 2013–2022 has had 4/7 fewer days of air and ground frost per year compared with 1991–2020 and 15/23 fewer than 1961–1990’.

The main text stated ‘... representing substantial changes in the UK’s climate with the number of ground frosts across Wales, Scotland and Northern Ireland decreasing by a quarter or more (Figure 21)’. The corrected text is ‘... representing substantial changes in the UK’s climate with the number of air and ground frosts decreasing by around 2 and 3 weeks, respectively (Figure 21)’.

The correct percentage values (not reported) were 7%/7% and 23%/20%. Figure 21 and caption were correct as presented and the main report conclusions are unaffected.

This correction is published alongside the State of UK Climate 2022 report (references; Anon 2024).

Feedback

We welcome any suggestions for future publications of this report. Please send any feedback to the Met Office at ncic@metoffice.gov.uk.

This State of the UK Climate report was supported by the Met Office Hadley Centre Climate Programme funded by DSIT.

EXECUTIVE SUMMARY

- The UK’s climate continues to change. Recent decades have been warmer, wetter and sunnier than the 20th century.
- Observations show that extremes of temperature in the UK have been affected much more than average temperature.
- The UK has warmed at a rate consistent with the observed change in global surface air temperature over land.

- The UK's second warmest year of 2023, the warmest June and the September heatwave were all made more likely by climate change.

Land temperature

- 2023 was the second warmest year on record for the UK in the series from 1884, with only 2022 warmer. 2023 was 0.83°C above the 1991–2020 average and 1.66°C above 1961–1990.
- February, May, June and September 2023 were all ranked in the top-ten warmest months for the UK in the monthly series from 1884.
- Six years in the most recent decade (2014–2023) have been within the top-ten warmest in the UK series from 1884, with all 10 warmest years occurring in the 21st century.
- The most recent decade (2014–2023) has been on average 0.42°C warmer than the 1991–2020 average and 1.25°C warmer than 1961–1990. This is the warmest 10-year period in both the UK series from 1884 and CET series from 1659.
- The last three decades (1994–2023) include more than half of all top-ten warmest monthly values, over two thirds of top-ten warmest seasonal values and over 90% of top-ten warmest annual values in temperature series for all counties of the UK from 1884.
- The number of 'pleasant' days (daily maximum 20°C) has increased by 41% for the most recent decade (2014–2023) compared with 1961–1990. The number of 'warm' days (25°C) has increased by 63%; the number of 'hot' days (28°C) has more than doubled and 'very hot' days (30°C) more than trebled over the same period.

Air and ground frost

- The number of air frosts in 2023 was below the 1991–2020 average, while the number of ground frosts was the second lowest in the series from 1961.
- The most recent decade (2014–2023) has had almost a week fewer air frosts per year than the 1991–2020 average and over a fortnight fewer than 1961–1990.
- The most recent decade (2014–2023) has had over a week fewer ground frosts per year than the 1991–2020 average and almost a month fewer than 1961–1990.

Energy demand indices for heating, cooling and plant growth

- Heating and growing degree days in 2023 were third-lowest and second-highest, respectively, in series from 1960. Cooling degree days were above average but not exceptionally so.

- The most recent decade (2014–2023) has had 5% fewer heating degree days per year on average than 1991–2020 and 14% fewer than 1961–1990.
- The most recent decade (2014–2023) has had 30 cooling degree days per year for England compared with 22 for 1991–2020 and 14 for 1961–1990, that is, more than doubling from 1961 to 1990.
- The most recent decade (2014–2023) has had 6% more growing degree days per year on average compared with 1991–2020 and 21% more than 1961–1990.

Near-coast sea-surface temperature

- For the second successive year, 2023 was the warmest year for UK near-coast sea-surface temperature (SST) in a series from 1870.
- The most recent decade (2014–2023) has been on average 0.3°C warmer than the 1991–2020 average and 0.9°C warmer than 1961–1990 for UK near-coast SST.
- Six years of the most recent decade (2014–2023) for UK near-coast SST are within the top-ten warmest in the series.

Precipitation

- 2023 was the seventh wettest year on record for the UK in the series from 1836, with 113% of the 1991–2020 average. Large areas of the UK exceeded 125%.
- March, July, October and December 2023 were all top-ten wettest months in the UK monthly rainfall series from 1836; the first year this has happened for four separate months.
- Five of the 10 wettest years for the UK in the series from 1836 have occurred in the 21st century.
- The most recent decade (2014–2023) has been 2% wetter than 1991–2020 and 10% wetter than 1961–1990.
- UK winters for the most recent decade (2014–2023) have been 9% wetter than 1991–2020 and 24% wetter than 1961–1990, with smaller increases in summer and autumn and none in spring.
- For rainfall series for all counties of the UK from 1836, the number of top-ten wettest annual values is markedly higher in each of the last three decades (1994–2023) compared with earlier decades. However, the increase in top-ten wettest values is much less apparent in the respective monthly and seasonal series.
- There has been a slight increase in heavy rainfall across the UK in recent decades.

Snow

- While there were some snow events in 2023 (and several recent years were less snowy), overall this was

a much less snowy year than most other years since the 1960s.

- In recent years, widespread and substantial snow events have occurred in 2009, 2010, 2013, 2018 and 2021, but their number and severity have generally declined since the 1960s.

Sunshine

- 2023 sunshine for the UK was 102% of the 1991–2020 average.
- June was the sunniest month of the year and the UK's sunniest calendar month since May 2020 with 245 h. December was especially dull with only 28 h.
- The most recent decade (2014–2023) has had for the UK on average 4% more hours of bright sunshine per year than the 1991–2020 average and 9% more than 1961–1990. 2014–2023 is the sunniest 10-year period in the UK series from 1910.
- For the most recent decade (2014–2023) UK winters have been 4% sunnier than 1991–2020 and 15% sunnier than 1961–1990. UK springs have been 7%/16% sunnier.

Wind

- The 2023–2024 storm season had its most active start with respect to the number of named storms since storm naming was introduced in 2015, with seven named storms (Agnes to Gerrit) from September to December.
- Even so, overall 2023 was comparable in storminess with other years in recent decades in terms of occurrences of max gust speeds exceeding 40/50/60 Kt.
- There have been fewer occurrences of max gust speeds exceeding 40/50/60 Kt in the last two decades compared with the 1980s and 1990s.
- The UK annual mean wind speed for 2023 was slightly below the 1991–2020 average.
- The UK annual mean wind speed from 1969 to 2023 shows a downward trend, consistent with that observed globally.

Sea-level rise

- Data from the tide gauge at Newlyn, one of the longest available records around the UK, shows sea level is rising, with 2023 the highest year on record since 1916. Other sites around the UK also had their highest or second-highest year on record.
- The rate of sea level rise is increasing, with highest estimates of 4.6 ± 0.9 mm/year (1993–2023), indicating acceleration.

- Newlyn monthly mean sea levels showed exceptionally high periods in 2023 especially in the second half of the year.
- There were 16 extreme storm-surge events in 2023, of which 13 were associated with named storms.
- The highest skew surges of the year were during storm Pia on 21 December (1.2 m at Cromer, Norfolk, 1.5 m at Lowestoft, Suffolk, 1.4 m at Harwich, Essex, 1.2 m at Sheerness, Kent and 1 m at Dover). Models show surges >1 m were widespread across the North Sea.
- The highest sea levels in most of south and south-west England and Wales were due to the combination of a spring tide and sustained period of high sea levels throughout late October and early November.

Significant weather

- The UK recorded its warmest June on record by a wide margin in a series from 1884, with a major North Atlantic marine heatwave a significant contributing factor.
- 30°C was recorded in September in the UK on seven consecutive days, for the first time on record.
- Scotland had its wettest 2-day period on record on 6–7 October in a daily series from 1891.
- Storm Babet brought the UK's most impactful weather event of the year. England and Wales combined had its third wettest 3-day period on record on 18–20 October in a daily series from 1891.
- Winds from storm Ciarán on 2 November had the potential to be as severe as from the 'Great Storm' of 16 October 1987, but the strongest winds missed the UK to the south.
- The UK recorded its wettest September to December period since 2000 due to persistently wet and unsettled weather, including the sequence of named storms from Agnes to Gerrit.

Phenology

- Indicators for spring 2023 were generally near-average or later compared with the 1999–2022 baselines. Insect activity, in particular, appeared later. However, Hazel had its earliest flowering date in a series from 1999.
- Bare tree dates were a few days later than the 1999–2022 baseline due to warm September temperatures and a generally mild autumn.
- Overall, the 2023 leaf-on season was slightly longer than the 1999–2022 baselines, although the shorter lawn-cutting season might be attributed to a complex mixture of low temperatures in early March inhibiting

growth and wet grass in autumn discouraging late cutting.

1 | SYNOPTIC SITUATION

1.1 | Atmospheric circulation

Figure 1 shows monthly mean sea-level pressure anomalies for the 12 months of 2023 relative to the 1991–2020 average, using the ERA5 reanalysis (Hersbach et al., 2020). This provides an indication of atmospheric circulation patterns for each month overall. Pressure anomalies on the charts are scaled equally across all 12 months for consistency; however, winter months typically have larger pressure anomalies than summer months. Figure 2 shows HadUK-Grid UK monthly mean sea-level pressure anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months). These charts and the time series illustrate the characteristic large variability in atmospheric circulation patterns in the UK's climate, which tend to be masked out on a seasonal scale—although inevitably the monthly charts will also mask out daily variability too, since changes in weather type do not neatly coincide with calendar months and each month will usually comprise a mixture of weather types.

A large high-pressure anomaly was centred over the UK in February and the UK monthly mean sea level pressure anomaly (12.6 hPa above the 1991–2020 February average) was the highest for any calendar month since February 2012. Pressure was also higher than normal in April, May and June with a high pressure anomaly extending from eastern Europe and Scandinavia to the UK. In February, May and June in particular the weather was often settled and dry. Pressure was lower than normal for the other months of the year, most notably in March, July and October to December, each of these months seeing a low-pressure anomaly extending from eastern Europe to the UK, and in March including much of the north Atlantic. During these months, the jet stream was often stronger and shifted further south than normal, bringing unsettled weather and stormy at times. In summary, the second half of the year was much more unsettled, with fewer spells of fine-settled weather than the first half.

The lowest pressure anomalies for any month of the most recent decade 2014–2023 were, by far, January and February 2014 (−15.7 and −21.7 hPa, respectively). These 2 months had the lowest average UK pressure anomalies of any month in the series from 1961; very much lower than any month in 2023

(Figure 2). These 2 months formed part of the exceptionally stormy and wet winter of 2013–2014 (Kendon and McCarthy 2015)—this being the UK's wettest winter on record in the series from 1836.

1.2 | NAO index

Figure 3 shows the winter North Atlantic Oscillation (WNAO) index from 1850 to 2023 inclusive (Appendix A1 provides details of the WNAO index). (Note here and throughout the report winter refers to the year in which January and February fall.) This index is a measure of the large-scale surface pressure gradient in the North Atlantic between the Azores and Iceland, which determines the strength of westerly winds across the Atlantic, and is the principal mode of spatial variability of atmospheric patterns in this region. When the pressure difference is large, the WNAO is positive and westerly winds dominate with stronger and more frequent storms. When the pressure difference is small, the WNAO is negative with an increased tendency for blocked weather patterns, reducing the influence of Atlantic weather systems.

The WNAO index for 2023 was negative, although not markedly so (−0.6), one of only two WNAO negative winters of the most recent decade 2014–2023, the other being 2021 (−1.0). Other earlier winters in the series have been much more negative, especially winter 2010 (−3.1). A WNAO negative winter would tend to be associated with a cold, dry winter. Winter 2023 was slightly milder than average (anomaly +0.2°C) and drier than average (anomaly 85%). February 2023 was very dry in the south of the UK with blocked weather patterns (Figure 1). The UK has experienced a run of mild, wet winters in the most recent decade, consistent with a positive phase of the WNAO, including the very wet winters of 2014, 2016 and 2020—but not 2023 (Figure 39). Overall, the WNAO index shows a large annual variability but also decadal variability with periods of mainly positive phase (e.g., the 1910s–1920s, 1990s and 2010s) and negative phase (e.g., the 1960s) which are represented by the smoothed trend line in Figure 3.

Figure 4 shows the summer North Atlantic Oscillation (SNAO) index from 1850 to 2023 inclusive (Appendix A1 provides details of the SNAO index). Similar to the WNAO index, this is a measure of large-scale climate variability in the North Atlantic based on the surface pressure gradient, but based on a more northerly location and smaller spatial scale than the winter counterpart, reflecting the more northerly location of the Atlantic storm track in summer.

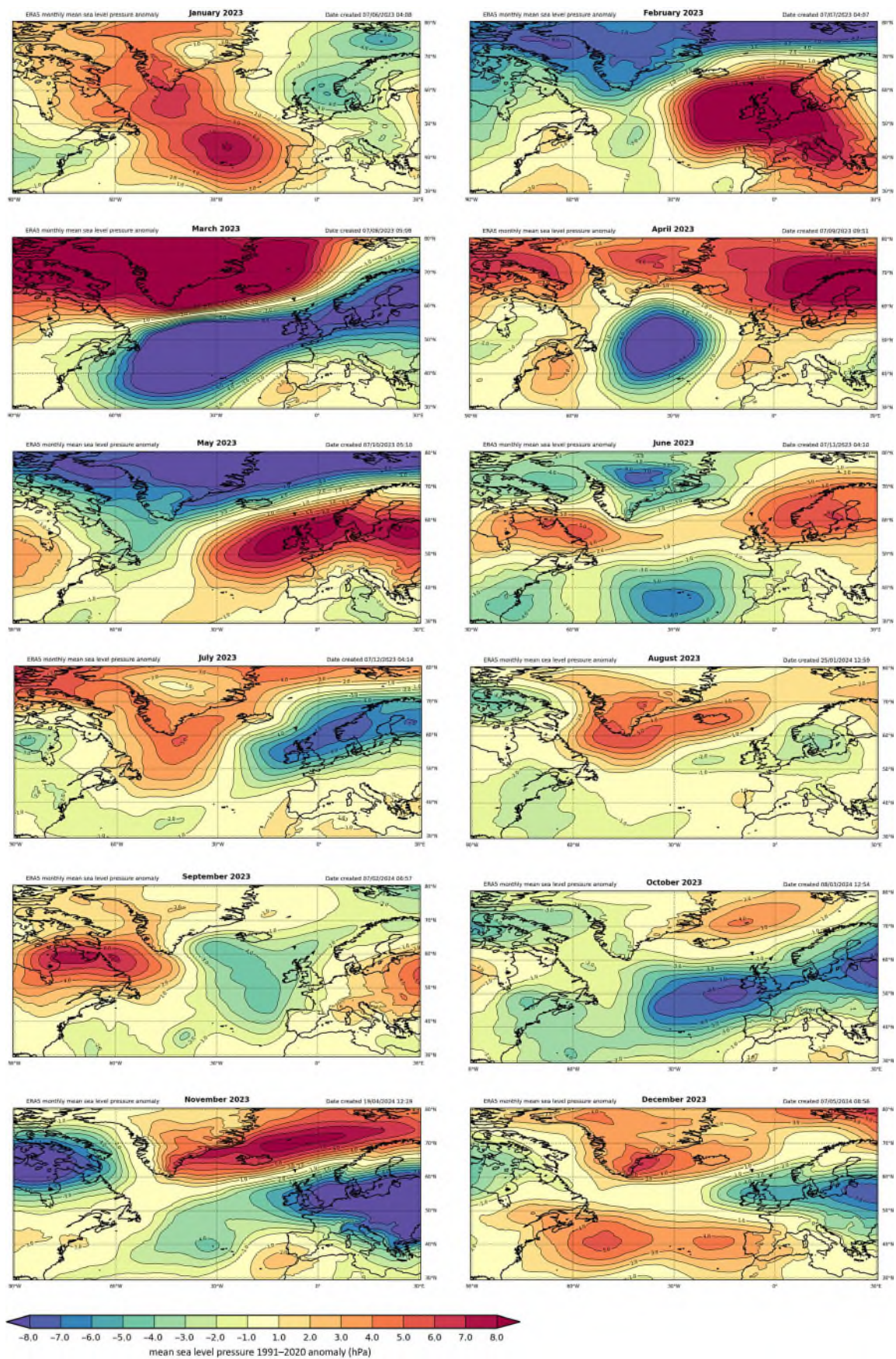


FIGURE 1 2023 monthly mean sea-level pressure anomalies relative to 1991–2020 using the ERA5 reanalysis (Hersbach et al., 2020).

FIGURE 2 UK monthly mean sea-level pressure anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months) based on the HadUK-Grid dataset (Hollis et al., 2019).

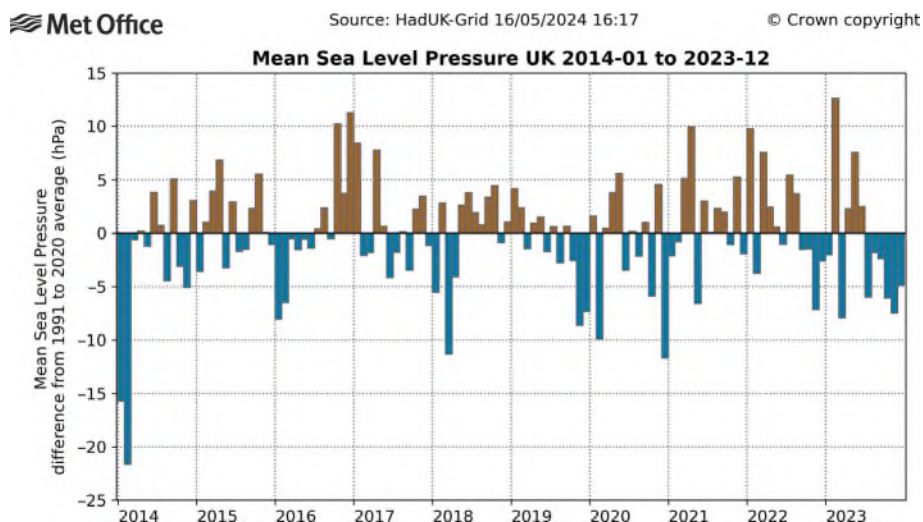


FIGURE 3 Winter NAO index based on the standardized monthly mean pressure difference between stations in Gibraltar and south-west Iceland. Winter 2023 refers to the period December 2022 to February 2023.

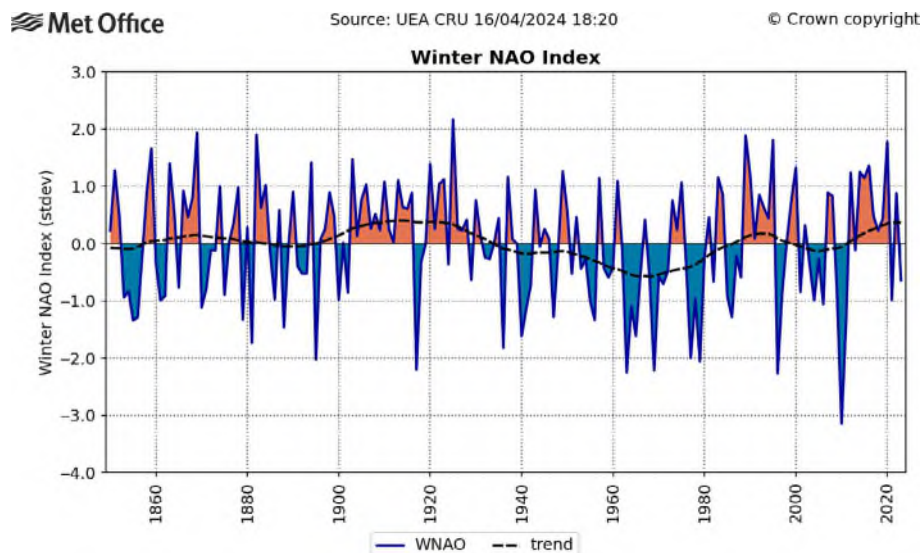
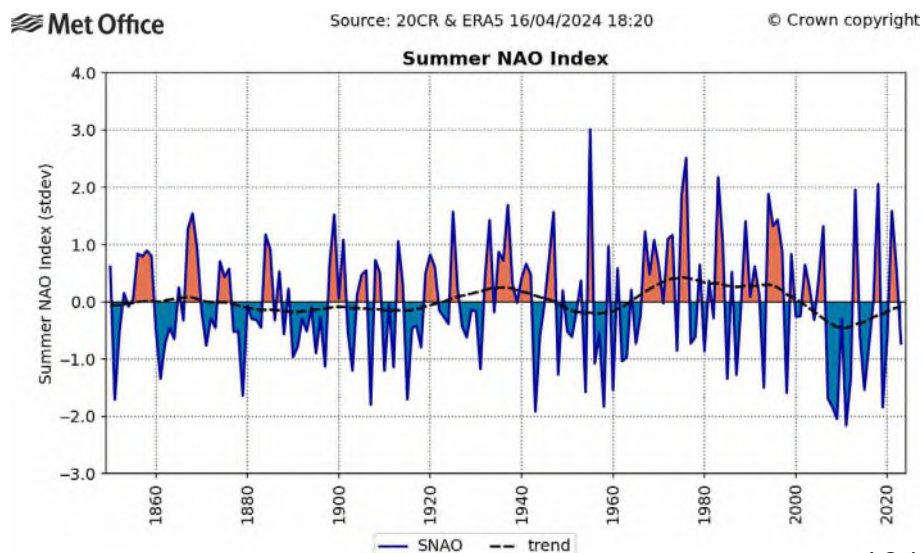


FIGURE 4 Summer NAO index based on the standardized monthly mean pressure difference using the 20th century reanalysis (Slivinski et al., 2019) and extended to the present day using the ERA5 reanalysis (Hersbach et al., 2020). Summer refers to the period June to August.



The SNAO index for 2023 was also marginally negative, (-0.7). A SNAO-negative summer would tend to be associated with lower temperatures and higher rainfall. Summer 2023 was warmer than average (anomaly 0.8°C) and wetter than average (anomaly 113%). June was fine and settled but July and August generally unsettled. Recent notably negative summers include 2015 (-1.5) and 2019 (-1.8) and positive summers 2018 (2.1) and 2021 (1.6). As with its winter counterpart, the SNAO shows periods of mainly positive phase (e.g., the 1970s to 1990s) and negative phase (e.g., the 1880s and 1890s), with a run of wet SNAO negative summers from 2007 to 2012. The recent large fluctuations in the SNAO reflect some markedly contrasting summers—illustrating the UK's large annual variability in the weather and atmospheric circulation patterns.

Importantly, neither the WNAO or SNAO can fully explain the variability of UK winters or summers because of the complexity of weather types and associated temperature and rainfall patterns through the season across the UK's relatively small spatial scale.

2 | TEMPERATURE

2.1 | Annual, seasonal and monthly temperature

The UK mean temperature (T_{mean}) for 2023 was 9.97°C , which is 0.83°C above the 1991–2020 long-term average. 2023 was the second warmest year on record in the UK series from 1884 behind only 2022 (10.03°C). The highest anomalies, exceeding 1.0°C relative to 1991–2020, were across Northern Ireland and western England and Wales. The UK mean temperature was 1.66°C above the 1961–1990 baseline long-term average (Figure 5). This was the warmest year on record for both Wales and Northern Ireland, the second warmest for England and third warmest for Scotland. The Republic of Ireland also had its warmest year in a national series from 1900 (Met Éireann, 2023). While many western counties had their warmest year on record, further east for the majority of England and Scotland the warmest year remains 2022, with other record years 2003, 2006 and 2014 confined to

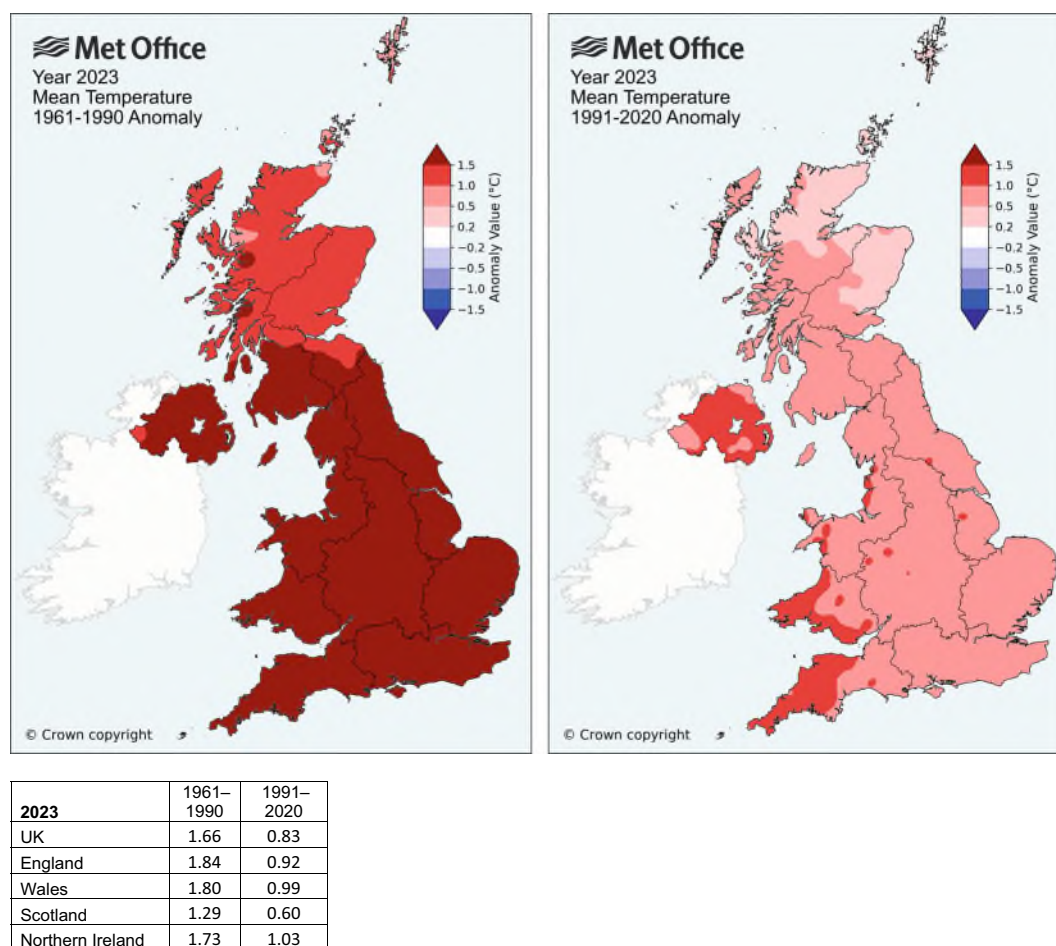


FIGURE 5 (a,b) Mean temperature anomalies relative to 1961–1990 and 1991–2020 for year 2023. The table shows anomaly values for the UK and countries ($^{\circ}\text{C}$).

the far north and west (Figure 6a,b). Appendix A8 describes these county areas.

The UK annual mean daily maximum temperature ($T_{\max}$) for 2023 was also the second highest on record, behind 2022, whereas it was the UK's warmest year on record for annual mean daily minimum temperature ($T_{\min}$) (6.32°C, 0.79°C above the 1991–2020 average, next warmest 2014, 6.26°C). Annual $T_{\max}$ and $T_{\min}$ temperature anomalies across the UK were similar, but with slightly lower anomalies across Scotland for $T_{\min}$ (Figure 7).

Figures 8 and 9 show seasonal and monthly T_{mean} anomalies for the UK for 2023. Table 1 shows monthly, seasonal and annual actual and anomaly values and ranks for the UK and countries for 2023. Figure 10 shows UK monthly mean temperature anomalies for the most recent decade 2014–2023.

Eight of the 12 months of the year were warmer than average, with anomalies in June and September (+2.5°C and +2.2°C) the highest for the UK since December 2015. Four months of the year were in the top-ten warmest for the UK overall (for T_{mean}) in series from 1884—February (ranked 5th), May (8th), June (1st) and September (equal-1st)—although this is also true for 2006 and 2017, and compares to 6 months in 2022. All countries of the UK had their warmest June, while England and Wales also had their warmest September. Unusually, June was

the warmest month of the year; the last time this happened was in 1966 (in 1970 June and August were equal-warmest). 1890 is the only year in the UK series where September was the warmest month.

Three months of the year were slightly cooler than average, with the most negative anomaly a modest −0.3°C in July. All other years in the most recent decade have had at least 1 month with a significantly more negative anomaly than this (Figure 10).

While winter and spring temperatures were near average overall, summer and autumn were notably warm (ranked 8th and 6th warmest, respectively), although for both seasons 2022 was warmer overall. Autumn anomalies were particularly high in the south, exceeding 1.5°C.

Table 2 shows monthly, seasonal and annual T_{mean} anomaly values for the UK and countries for the most recent decade 2014–2023 against both 1961–1990 and 1991–2020. The most recent decade 2014–2023 has been 0.42°C warmer than 1991–2020 and 1.25°C warmer than 1961–1990, with the most warming across England, then Wales, and slightly less across Scotland and Northern Ireland. Comparing the most recent decade 2014–2023 to 1961–1990, all months have warmed for the UK by between +0.9°C for October and +1.7°C for February, with the greatest warming in England for February (+1.9°C) and the least in Scotland for October (+0.5°C). These statistics reflect annual and decadal variability in

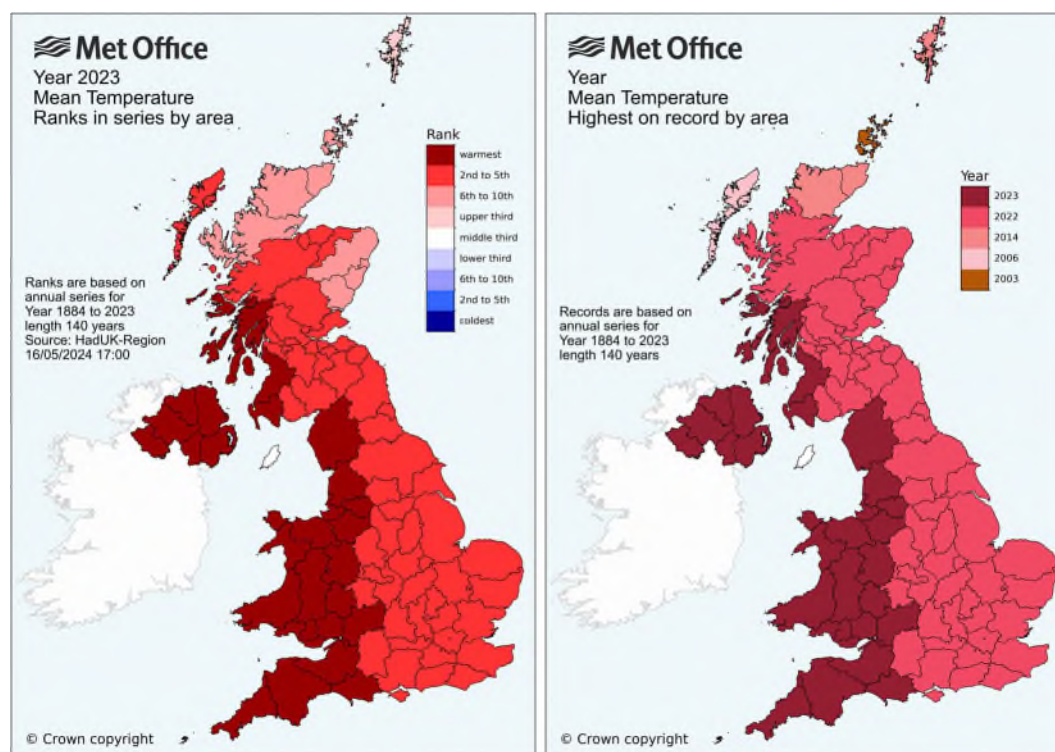


FIGURE 6 The rank of 2023 annual mean temperature for all counties of the UK (a, left) and the warmest year on record all counties of the UK (b, right) based on series from 1884.

the UK's climate in addition to the ongoing warming due to climate change.

Figure 11 shows a time series of annual T_{mean} anomalies for the UK from 1884 to 2023 inclusive, and shows that the main period of warming for the UK has been from the 1980s onward at a rate of $\sim 0.25^{\circ}\text{C}$ per decade (1°C in 40 years, i.e., two grid lines along for every one grid line up on the graph.) The two warmest years in the series are 2022 and 2023. Six of the 10 years 2014 to 2023 have been within the top-ten warmest for the UK overall (2014, 2017, 2018, 2020, 2022 and 2023), and this is the warmest 10-year period in the UK series. All top 10 warmest years in the UK T_{mean} series have occurred in the 21st century; none of the top 10 coldest years has occurred in this century, the most recent of these being 1963. The coldest year this century (2010) is ranked 22nd coldest in the UK series; every other year this century falls in the top third warmest years in the series.

Thirty years ago, the warmest year in the UK series from 1884 to 1993 was 1990. Half of the years since then

(i.e., for the period 1994 to 2023) have subsequently been warmer than 1990.

Figure 12 shows annual mean maximum and minimum temperatures for the UK from 1884 to 2023 as anomalies relative to 1991–2020. These series are highly correlated (R^2 0.83). Warming is slightly higher for T_{max} than T_{min} with the most recent decade (2014–2023) 1.41°C warmer than 1961–1990 for T_{max} and 1.09°C for T_{min} . The UK average diurnal temperature range (DTR, $T_{\text{max}} - T_{\text{min}}$) is $\sim 7^{\circ}\text{C}$. There has been a small recent increase in the average DTR but to levels similar to those observed before the mid-20th Century (Figure 13).

Figure 14 shows UK seasonal mean temperature for all four seasons. As with the annual series, the seasonal series show large inter-annual variability and some decadal variability, with a marked increase in temperature across all four seasons from the 1970s or 1980s onward. The most recent decade 2014–2023 has seen 16 seasons out of 40 in the top-ten warmest in their seasonal series (more than one in three): five in winter

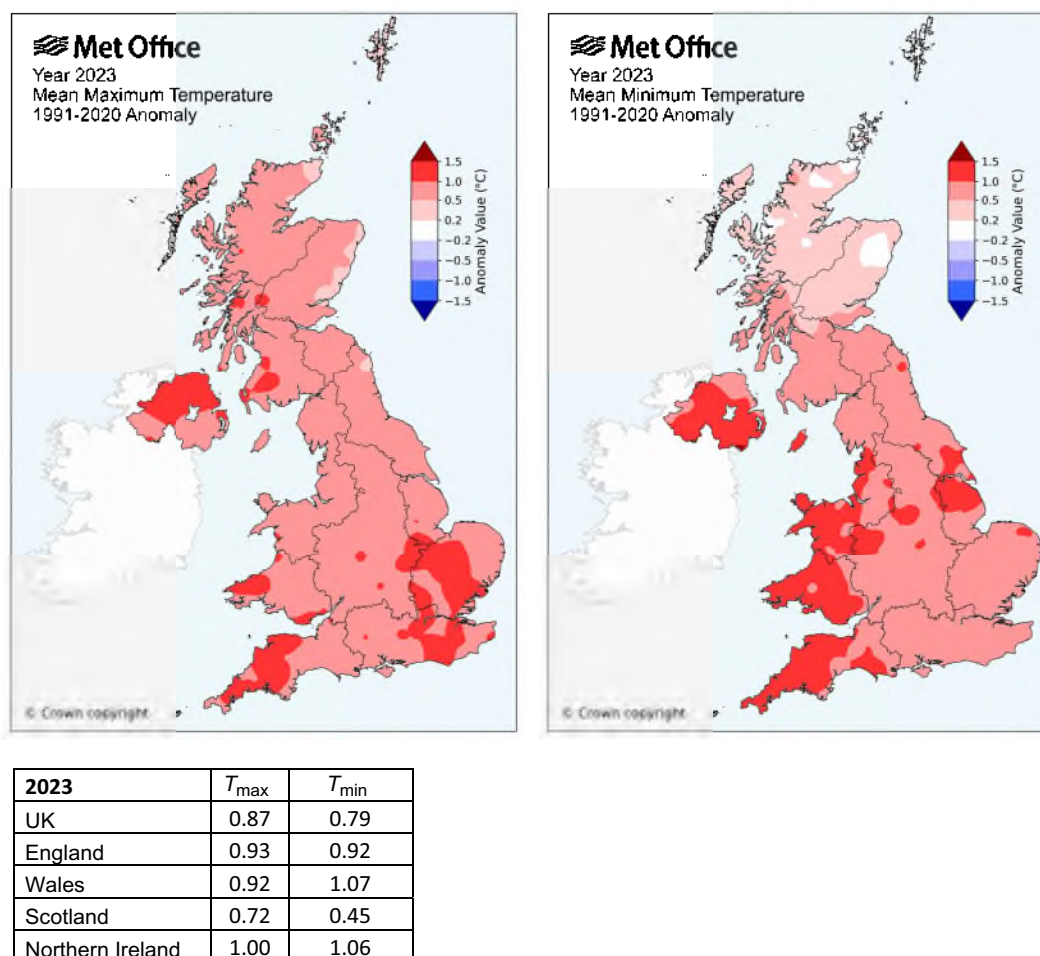


FIGURE 7 2023 temperature anomalies relative to 1991–2020 for (a) mean maximum and (b) mean minimum temperature. The table shows anomaly values for the UK and countries relative to 1991–2020 ($^{\circ}\text{C}$).

(2014, 2016, 2019, 2020, and 2022); four in spring (2014, 2017, 2020, and 2022); three in summer (2018, 2022, and 2023); four in autumn (2014, 2021, 2022, and 2023)—whereas none have fallen in the top-ten coldest.

The uncertainty in these statistics is principally a function of the number and distribution of stations in the observing network which varies through time. For monthly, seasonal and annual averages the standard

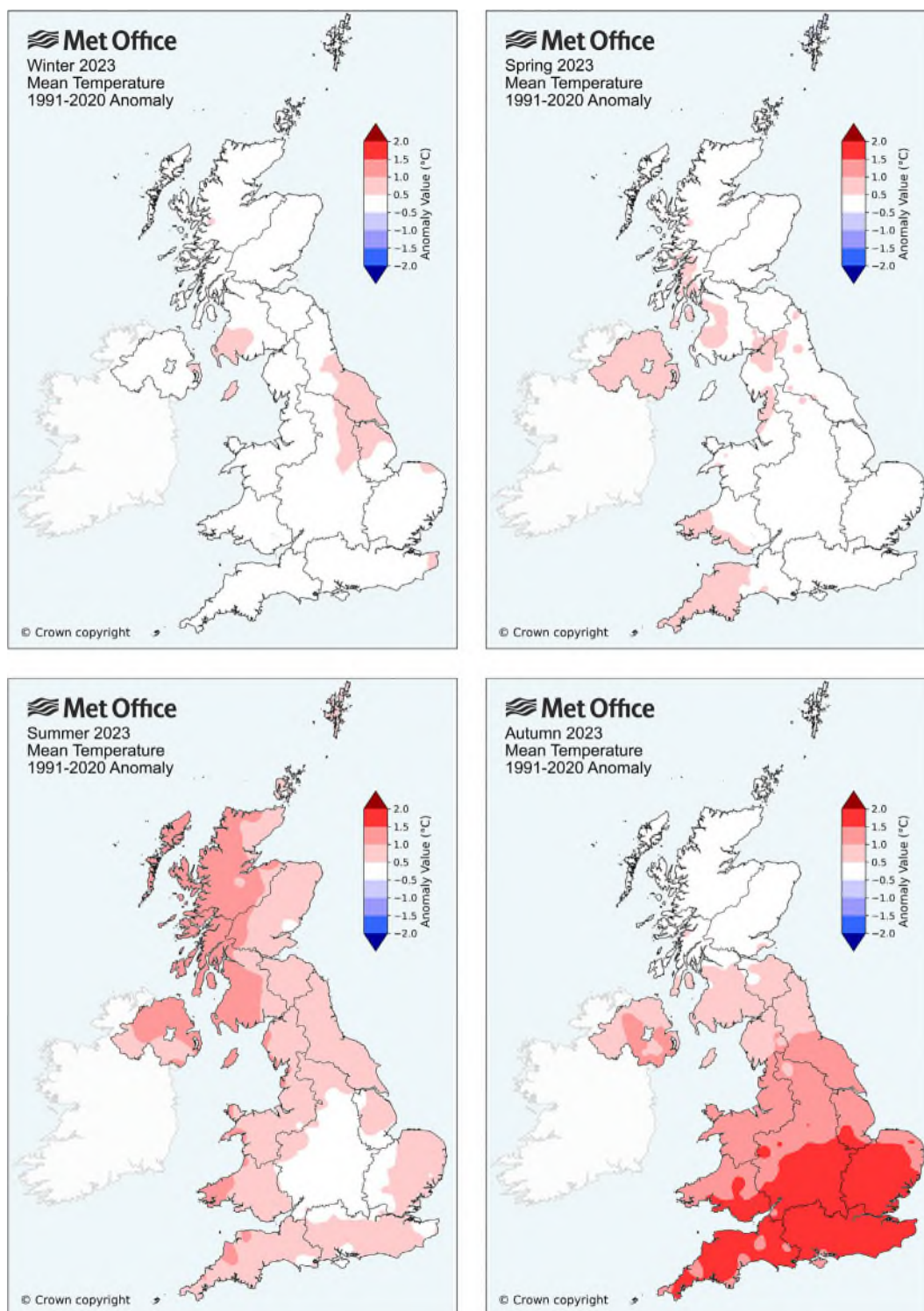


FIGURE 8 2023 seasonal mean temperature anomalies relative to 1991–2020. Winter refers to the period December 2022 to February 2023.

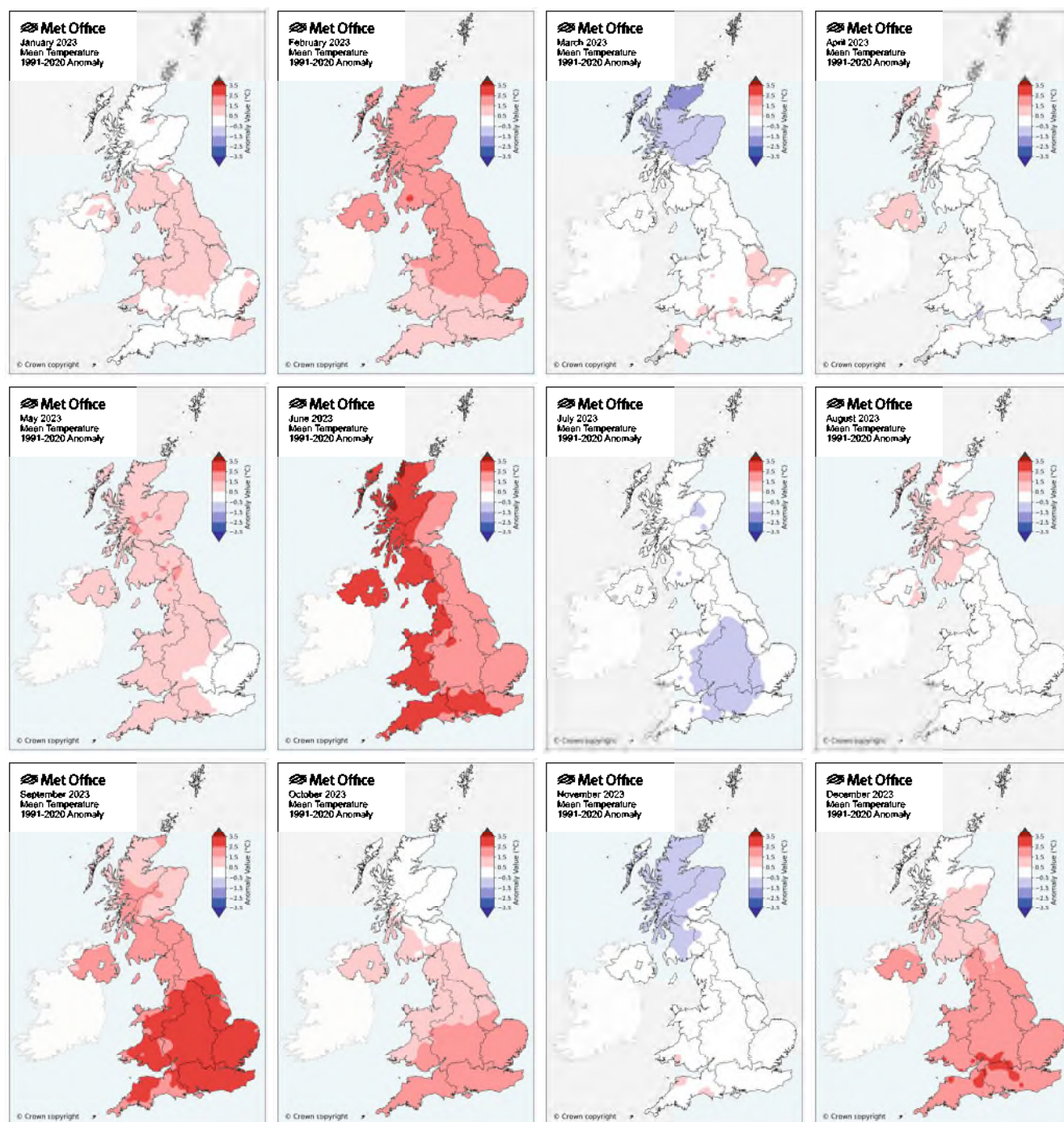


FIGURE 9 2023 monthly mean temperature anomalies relative to 1991–2020. The legend scale ranges from -3.5°C to $+3.5^{\circ}\text{C}$.

error is $<0.1^{\circ}\text{C}$ and consequently the uncertainty is much smaller than the year-to-year variability. In this report monthly and seasonal temperature data are presented in tables to the nearest 0.1°C and annual temperature data to 0.01°C . More information relating to the uncertainties and how they are estimated is provided in Appendix B2.

A key illustration of the implications of the UK's warming climate is the increased number of high-

temperature values which have occurred in monthly, seasonal and annual temperature series in recent years. This question was examined a decade ago (Kendon 2014) with a similar analysis repeated here. Monthly, seasonal and annual temperature values are often reported where they fall within the top-ten of the series at country, national, regional or county level. Figure 15a examines the frequency of occurrence of these values through 166

TABLE 1 Monthly, seasonal and annual mean temperature actual and anomaly values (°C) relative to 1991–2020 for the UK and countries for year 2023.

	UK		England		Wales		Scotland		Northern Ireland	
	Actual	Anomaly	Actual	Anomaly	Actual	Anomaly	Actual	Anomaly	Actual	Anomaly
January	4.4	0.5	4.9	0.5	5.0	0.6	3.3	0.3	4.9	0.5
February	5.8	1.7	6.2	1.5	5.8	1.3	5.1	2.0	6.7	2.0
March	5.7	0.0	6.8	0.4	6.2	0.3	3.6	−0.7	6.3	0.3
April	7.8	0.0	8.4	−0.2	8.1	0.0	6.6	0.1	8.6	0.6
May	11.6	0.9	12.3	0.7	11.9	1.0	10.3	1.2	11.8	1.3
June	15.8	2.5	16.7	2.3	16.2	2.7	14.3	2.7	16.0	3.0
July	15.0	−0.3	16.1	−0.4	14.9	−0.3	13.2	−0.2	14.4	−0.3
August	15.3	0.2	16.2	−0.1	15.2	0.1	13.8	0.5	14.9	0.4
September	15.2	2.2	16.6	2.7	15.6	2.5	12.8	1.5	14.2	1.6
October	10.7	1.0	12.1	1.5	11.5	1.4	8.3	0.1	10.9	1.2
November	6.3	−0.2	7.2	0.1	7.3	0.3	4.4	−0.8	6.8	0.0
December	5.8	1.6	6.8	2.1	7.0	2.1	3.6	0.6	6.5	1.8
Winter	4.3	0.2	4.8	0.2	4.7	0.1	3.3	0.3	4.9	0.3
Spring	8.4	0.3	9.2	0.3	8.7	0.4	6.9	0.2	8.9	0.7
Summer	15.4	0.8	16.3	0.6	15.4	0.8	13.8	1.0	15.1	1.0
Autumn	10.7	1.0	12.0	1.4	11.5	1.4	8.5	0.3	10.6	1.0
Annual	9.97	0.83	10.89	0.92	10.40	0.99	8.29	0.60	10.17	1.03
Key										
Coldest on record	Top 10 cold	Cool: ranked in lower third of all years	Middle: ranked in middle third of all years	Warm: ranked in upper third of all years	Top 10 warm	Warmest on record				

Note: Colour coding corresponds to the rank as given in the key below. The series lengths are 1884–2023 (140 years) except winter which is 1885 to 2023 (139 years).

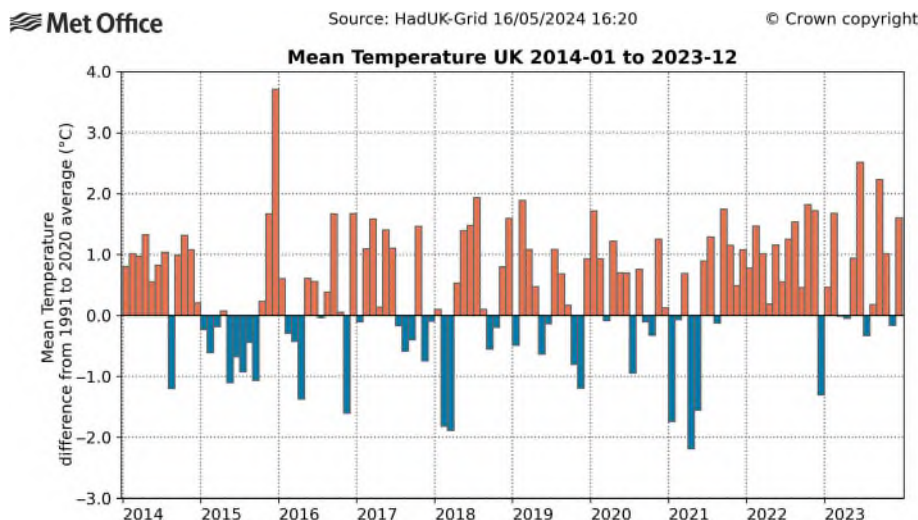


FIGURE 10 UK monthly mean temperature anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months).

TABLE 2 Monthly, seasonal and annual mean temperature anomaly values (°C) relative to 1961–1990 and 1991–2020 for the UK and countries for the decade 2014–2023.

	UK		England		Wales		Scotland		Northern Ireland	
	61–90	91–20	61–90	91–20	61–90	91–20	61–90	91–20	61–90	91–20
January	1.1	0.2	1.2	0.2	1.2	0.3	0.9	0.1	0.9	0.1
February	1.7	0.5	1.9	0.7	1.8	0.6	1.4	0.3	1.2	0.3
March	1.3	0.3	1.5	0.4	1.2	0.2	1.0	0.2	0.9	0.1
April	1.2	0.0	1.3	0.0	1.3	0.1	1.0	0.0	1.0	0.1
May	1.2	0.3	1.3	0.3	1.2	0.3	1.1	0.4	1.3	0.4
June	1.4	0.8	1.5	0.8	1.5	0.8	1.3	0.8	1.4	0.8
July	1.3	0.4	1.5	0.5	1.1	0.4	1.1	0.3	1.0	0.3
August	1.0	0.1	1.1	0.2	0.9	0.1	0.8	0.1	0.8	0.1
September	1.2	0.5	1.3	0.6	1.2	0.5	1.2	0.5	1.0	0.3
October	0.9	0.6	1.1	0.7	0.9	0.6	0.5	0.4	0.6	0.4
November	1.3	0.3	1.4	0.4	1.2	0.3	1.1	0.2	1.1	0.2
December	1.3	1.0	1.6	1.1	1.6	1.1	0.8	0.7	1.0	0.8
Winter	1.4	0.6	1.5	0.6	1.5	0.7	1.1	0.4	1.0	0.4
Spring	1.2	0.2	1.4	0.2	1.3	0.2	1.0	0.2	1.1	0.2
Summer	1.2	0.4	1.4	0.5	1.2	0.4	1.1	0.4	1.1	0.4
Autumn	1.1	0.5	1.3	0.6	1.1	0.5	1.0	0.4	0.9	0.3
Annual	1.25	0.42	1.41	0.49	1.25	0.45	1.02	0.32	1.02	0.32
Key	<−0.95°C −0.95°C to −0.45°C −0.45°C to −0.25°C −0.25°C to 0.25°C 0.25°C to 0.45°C 0.45°C to 0.95°C >0.95°C									

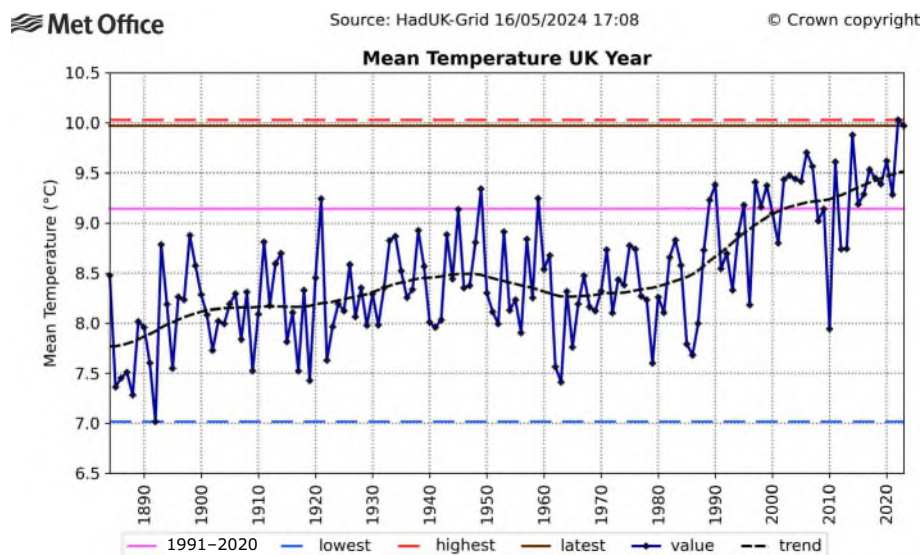
Note: Colour coding corresponds to the anomaly values as given in the key below.

decade of the monthly, seasonal and annual mean temperature time series across 97 county areas of the UK. These county areas are described in Appendix A8 and shown in Figure A6. Although these areas vary in size, they are useful for monitoring at this spatial scale. The figure counts the total number of such values across all counties by decade throughout the monthly, seasonal

and annual series, converted to a percentage of all monthly, seasonal and annual top-ten values (which is the same as the percentage of the total number of records for each decade).

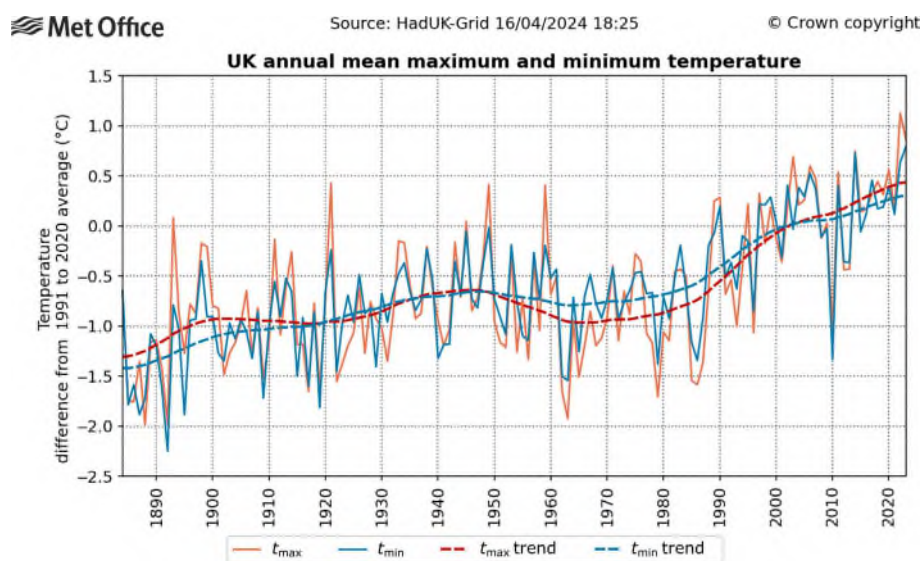
The average across the 14 decades of the 140-year series is 7.1% per decade (100/14, that is, what would be expected on average if these values were evenly spa

FIGURE 11 Annual mean temperature for the UK, 1884 to 2023. The table shows actual values for the UK and countries (°C).



	1961–1990	1991–2020	2014–2023	2023
UK	8.32	9.14	9.56	9.97
England	9.04	9.96	10.45	10.89
Wales	8.61	9.41	9.86	10.40
Scotland	6.99	7.69	8.02	8.29
Northern Ireland	8.44	9.13	9.46	10.17

FIGURE 12 Annual mean maximum and minimum temperature for the UK, 1884 to 2023 as anomalies relative to 1991–2020. The table shows actual values for the UK (°C).



	1961–1990	1991–2020	2014–2023	2023	2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020
$T_{\max}$	11.87	12.79	13.28	13.66	1.41	0.49
$T_{\min}$	4.80	5.53	5.88	6.32	1.09	0.35

However, as a consequence of the UK's warming climate, the occurrence of top-ten warmest values in the series is dominated by the last three decades, which together account for 52% of all top-ten warmest monthly values,

70% of all top-ten warmest seasonal values and 93% of all top-ten warmest annual values. The most recent decade alone accounts for 25%/33%/50% monthly/seasonal/annual values. So, overall, a quarter of all months, a **169**

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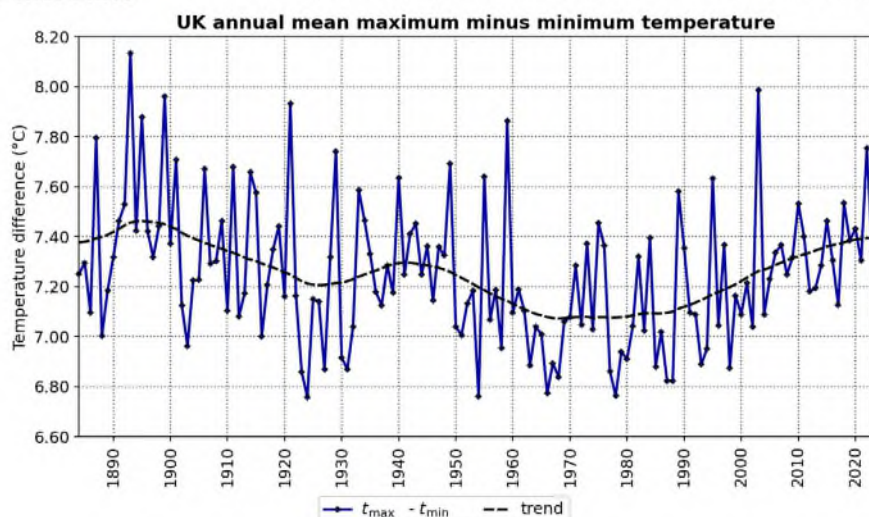


FIGURE 13 Annual mean maximum temperature minus mean minimum temperature (diurnal temperature range, DTR) for the UK, 1884–2023.

of all seasons and half of all years of the most recent decade 2014–2023 have been in the top-ten warmest in their respective monthly, seasonal or annual series (e.g., in the top-ten warmest Januaries, etc.), or an alternative framing, based on the observational series, is that the chance of any year of the most-recent decade 2014–2023 falling within the top-ten warmest in the series is one in four for each month, one in three for each season and one in two for each year.

The UK's climate is dominated by natural variability, with the warming trend becoming increasingly apparent as the data are averaged over time, due to the 'signal-to-noise' ratio—warming trend versus variability—increasing. This is because each season comprises three constituent months, and each year four constituent seasons. Although the separate months will not be completely independent, the variability will tend to reduce and the climate change signal will be retained when averaging over these 3-month and 12-month periods. The signal-to-noise ratio is, therefore, increased because the noise (i.e., the variability) is reduced. In statistics this effect is known as the Central Limit Theorem (Fischer 2011). The increased proportion of top-ten annual values compared with seasonal and monthly values in the most recent decades is a direct consequence of this effect.

Figure 15b similarly explores the frequency of the top-ten coldest values in the county mean temperature series, with the last three decades together accounting for <3% of monthly and seasonal values and <0.5% of annual values, and the occurrence of these values much more prominent in the early decades of the series. No seasons or years of the most recent decade 2014–2023 have been in the top-ten coldest in their respective series for any county area of the UK, and virtually no months (4 values

out of 11,640 records [0.03%]). Taken together, these figures show the dramatic consequence of the UK's changing climate on occurrences of both warmest and coldest monthly, seasonal and annual top-ten temperature values.

2.2 | Central England temperature

Figure 16 shows annual T_{mean} for the CET series from 1659 and for England from 1884 to 2023. CET represents a region bounded by Hertfordshire, Worcestershire and Lancashire. The temperature trends in the HadUK-Grid dataset shown in Figure 11 are confirmed by the close consistency with the CET series. 2023 was the second warmest year in the CET series with an annual T_{mean} of 11.13°C, 0.89°C warmer than the 1991–2020 average with only 2022 warmer (11.18°C). Six of the 10 years in the most recent decade, 2014–2023, in the CET series have been in the top-ten warmest: 2014, 2017, 2018, 2020, 2022 and 2023—the same years as the UK series. 2023 was the second warmest year in the CET T_{max} series also behind 2022, but the equal-warmest year (with 2006) in the CET T_{min} series with an annual T_{min} of 7.30°C (both series from 1878).

The CET series provides evidence that the 21st century so far has overall been warmer than any period of equivalent length in the previous three centuries, and that all seasons have also been warmer (Figure 17). When comparing the early 21st century (2001–2023) to previous centennial averages, the annual T_{mean} difference is +0.9°C compared with 1901–2000, +1.3°C compared with 1801–1900 and 1701–1800, and +1.8°C compared with 1659–1700—with some seasonal variations (Table 3). The most recent decade (2014–2023) has been the warmest 10170

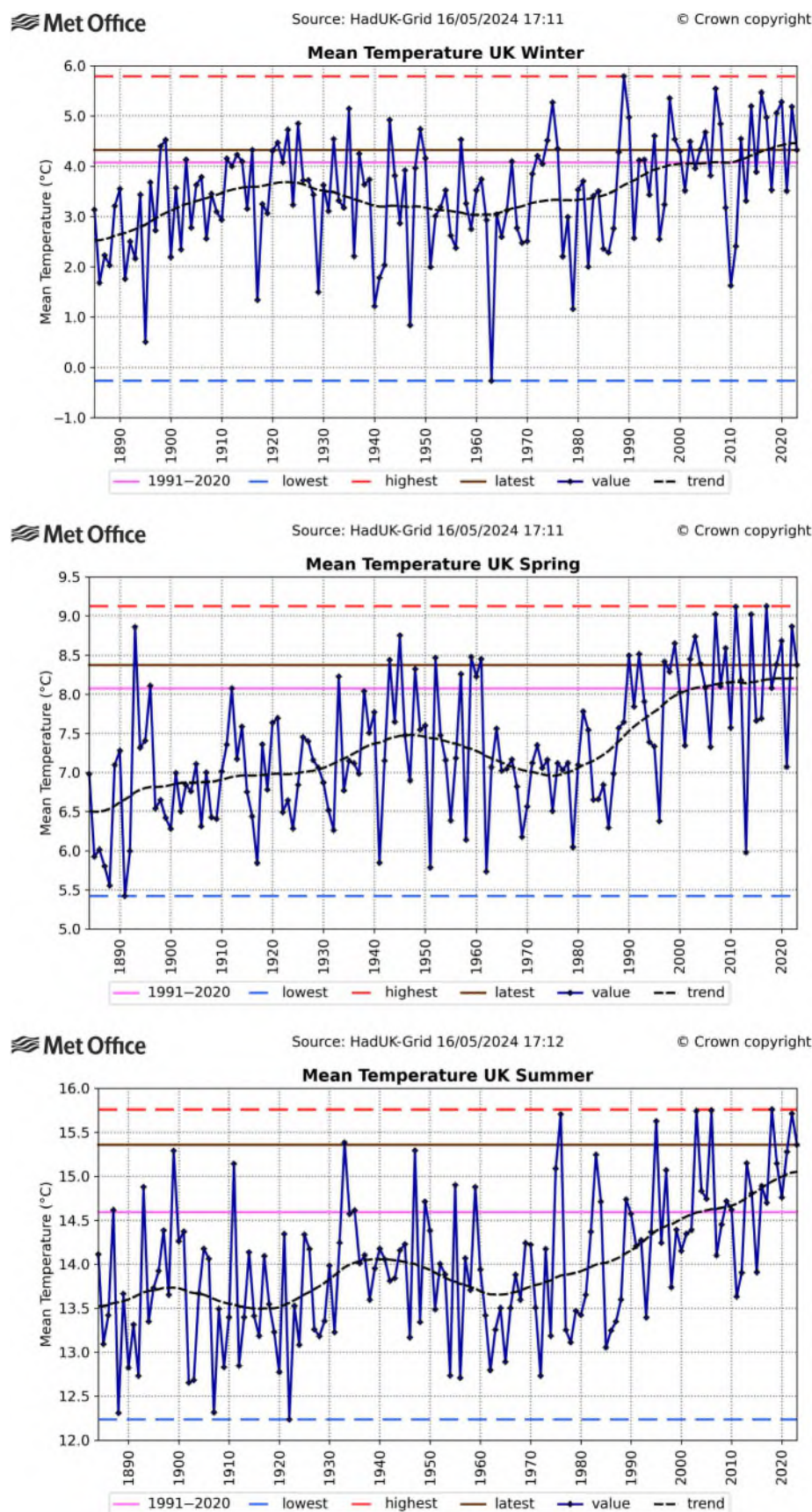


FIGURE 14 Seasonal mean temperature for the UK for (a) winter, (b) spring, (c) summer, and (d) autumn - (overleaf) 1884–2023 (winter 1885–2023). Note the y-axis gridline spacing differs between the figures.

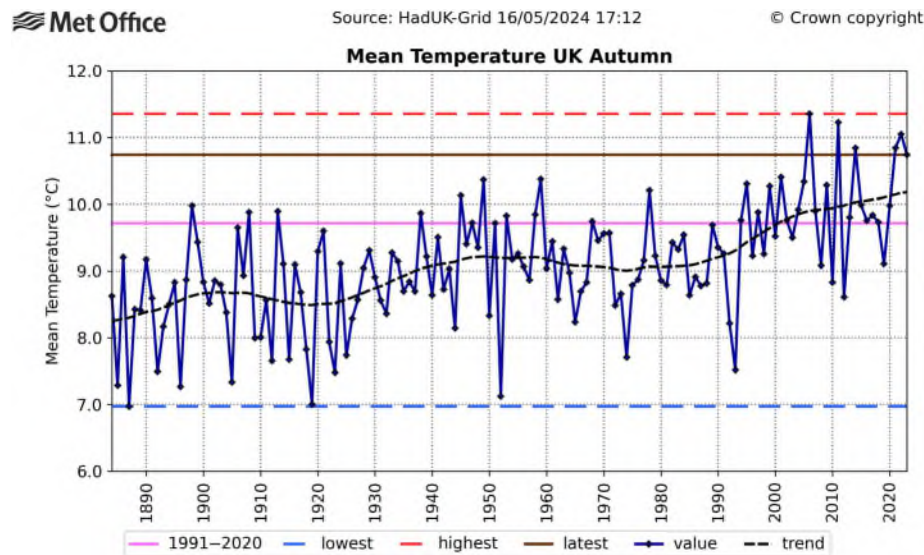


FIGURE 14 (Continued)

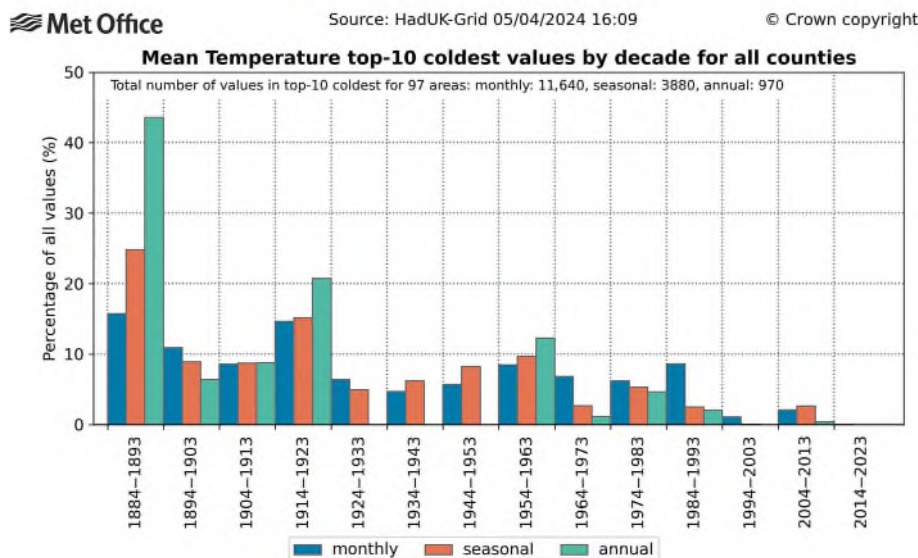
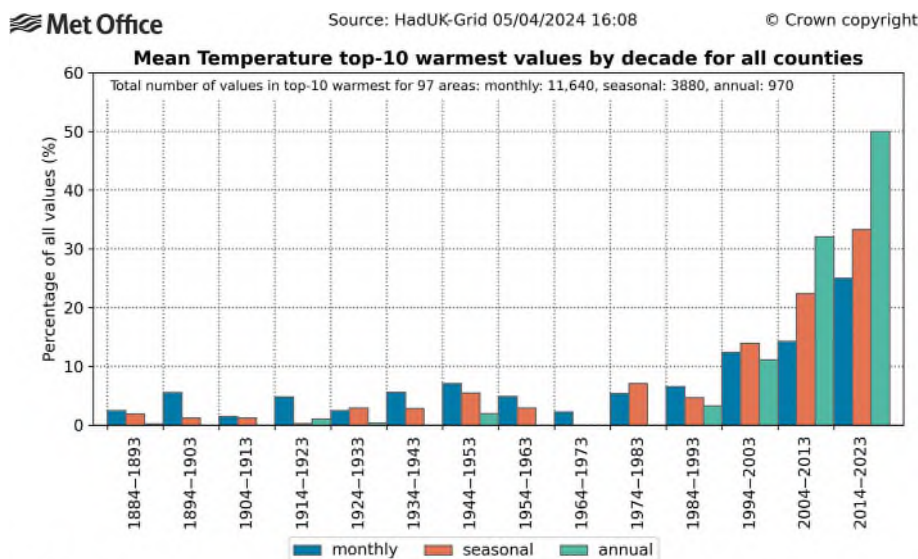


FIGURE 15 (a,b) Number of monthly, seasonal and annual top-ten temperature values by decade for the 14 decades of the 140-year HadUK-Grid monthly mean temperature series 1884–2023. The figure counts the number of values in the top-ten warmest (a) and top-ten coldest (b) in the series across 97 counties of the UK. There are $97 \times 12 \times 10 = 11,640$ monthly values, $97 \times 4 \times 10 = 3880$ seasonal values and $97 \times 10 = 970$ annual values for each of the top-ten warmest and top-ten coldest spread across all the decades. Each decade also comprises 11,640/3880/970 monthly/seasonal/annual values in total from which these top-ten/bottom-ten subsets of values are taken. Counts are converted to the percentage of all monthly, seasonal and annual top-ten values, with an average of 7.1% per decade. The first decade is one winter short, that is, 1885–1893

period in the CET series, and 2023 was the first year in the series in which every calendar month was warmer than the 1961–1990 long-term average.

The CET and England series are very highly correlated (R^2 value of 0.99 for the period of overlap) and have a root-mean-square difference of 0.1°C which is comparable to the estimated series uncertainty as described in Appendix B2. The CET series could effectively be considered a proxy for an England series from 1659, although because these are different datasets produced in different ways, some differences are inevitable. The England series has warmed slightly more than the CET series, which means that in Figure 16 the England series anomalies are slightly lower than the CET series before the 1991–2020 period. The slightly greater warming for England compared with CET warrants further investigation since the cause of this difference cannot be confidently attributed at present. However, this difference is small compared with the overall warming trend common to both series.

2023 was also the second warmest year on record at the Oxford Radcliffe Meteorological station in a series from 1814, with 11.85°C , behind 2022 (12.14°C). The next warmest year was 2014 (11.79°C).

2.3 | Comparison with global mean surface temperature

Figure 18 plots annual T_{mean} for the UK from 1884 to 2023 from HadUK-Grid alongside global mean surface temperature (land surface air temperature and sea surface temperature) based on the ‘best estimate’ time-series from the HadCRUT5 dataset (Morice et al., 2021) and the global land surface only from the CRUTEM5 dataset (Osborn et al. 2021). All three series are plotted as anomalies relative to the baseline reference period 1961–1990. The annual variability in UK T_{mean} is very much larger than HadCRUT5 and CRUTEM5, as the UK covers only a small fraction ($\sim 1/2000$) of the Earth's surface.

Globally, 2023 was the warmest year in the HadCRUT5 series from 1850, exceeding the previous warmest year, 2016, by 0.17°C . It was also the warmest year for the global land surface only. Based on HadCRUT5, 2023 was 1.10°C warmer than 1961–1990. Global average surface temperatures are commonly reported with reference to a ‘pre-industrial’ baseline period of 1850–1900. 2023 was 1.46°C warmer than 1850–1900. This ‘pre-industrial’ baseline is not available for the UK since the monthly series start in 1884. Globally, June to December 2023 were each the warmest such month on record in the HadCRUT5 series. On top of long-term warming, this was in part due to a transition into El Niño conditions in the

latter part of the year, further elevating temperatures. El Niño is part of a pattern of climate variability in the tropical Pacific that imparts warmth to the global atmosphere, temporarily adding up to 0.2°C to the temperature of an individual year. This stands in contrast to the reverse pattern of climate variability, La Niña, which suppressed global average temperatures in 2021 and 2022. El Niño/La Niña is just one example of a mode of variability affecting the global climate.

Globally, warming is greater across high latitudes compared with the equator, and over land compared with the ocean (IPCC, 2021, Blunden and Boyer, 2022). The most recent decade 2014–2023 has been 1.25°C warmer than 1961–1990 for the UK, compared with 0.85°C for global mean surface temperature and 1.15°C for global land only. The UK's climate is subject to natural multi-annual to multi-decadal modes of variability which will super-impose on any longer-term trend. Taking this factor into consideration, the underlying warming observed for the UK is consistent with that observed globally over land. However, the details of any comparison will also depend on the choice of 1961–1990 as the baseline.

2.4 | Daily temperature

Figure 19a,b shows daily maximum and minimum temperature anomaly maps relative to the 1991–2020 monthly averages for each day of 2023. In the UK's climate, daily maximum and minimum temperature anomalies are mostly within $\pm 8^\circ\text{C}$ of the monthly average (encompassing the full-colour scale of these charts) with anomalies generally only exceeding these values on a few days of the year—often across only a relatively small area. Figure 20a,b shows the UK area average daily maximum (T_{max}) and minimum (T_{min}) temperatures through the year.

In common with most recent years, in 2023 the number of days where the UK average daily maximum and minimum temperatures were above the 1991–2020 monthly averages exceeded the number of days below: 2023 comprised 230/135 days above/below for maximum and 218/147 days above/ below for minimum temperature. The most recent year where the number of days below average exceeded days above was 2016 for T_{max} and 2015 for T_{min} . By far the most significant spells of above-average temperature in 2023 were in June and early September (these events are described in Sections 9.1 and 9.2), while much of December was also very mild. There were significant cold spells in mid-January, early March and late November to early December, although despite this no months of the year **173**

temperature anomalies well below the 1991–2020 average (Figure 10, Table 1).

Figure 21a,b shows the UK's highest daily maximum and lowest daily minimum temperatures for each calendar day of 2023 based on the HadUK-Grid dataset. These are point values—the location of which will vary on a daily basis depending on where in the UK that daily extreme happens to be located—so they differ from Figure 20a,b which is UK mean (i.e., area average) daily maximum and minimum. The highest and lowest values, therefore, represent the absolute temperature ranges of point values across the UK through the calendar year in 2023 and from 1960 to 2023—that is, defining the envelope of UK climate observations—as they do not include spatial averaging.

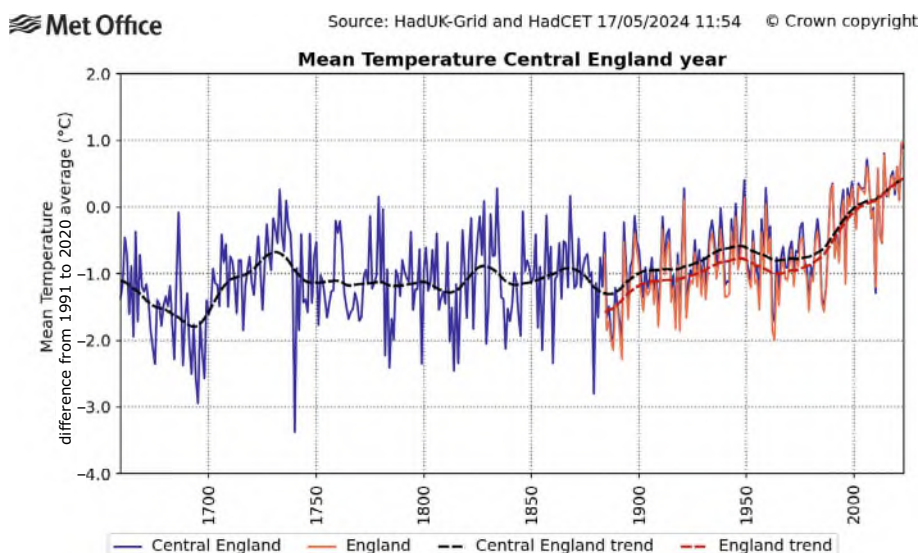
With high pressure and clear skies, the cold spell in January saw widespread hard frosts for around a week, including across London (e.g., -8.4°C at Heathrow on 23rd). Early March saw some notably low temperatures across northern Scotland (widely -10°C to -15°C) due to a cold plunge of Arctic air and lying snow cover; temperatures struggled to rise above freezing at times (e.g., a maximum of -0.9°C at Pennerley, Shropshire on 8th). The cold snap in late November to early December again saw widespread hard frosts (-6.8°C at Exeter Airport on 2nd December). Maximum temperatures were fairly suppressed during the spring, not reaching 25°C until late May, but June was exceptionally warm with 30°C reached from 10th to 13th and again on 25th. After a fine June, July and

August were generally cool and unsettled: maximum temperatures in July were particularly suppressed, often struggling to reach 20°C . 30°C was reached locally on only 1 day in July (7th in west London) and none at all in August—but on seven consecutive days in September. Nine of the UK's 10 warmest days of the year 2023 (based on UK average daily mean temperature) were in June or September.

A long-standing curious statistic of UK climatology was that 13 June was the only June date that had never previously recorded temperatures in excess of 30°C (Webb and Meaden, 2000). This quirky fact was finally broken in 2023, with 30.8°C at Porthmadog (Gwynedd).

A notable spell of warmth affected southern England from 7 to 10 October, with temperatures reaching 25°C in London and parts of the south-east. This was the most significant spell of October warmth since 2011. After the first few days, much of December was very mild, especially for average daily minimum temperatures. For example, on Christmas Day, daily minimum temperatures fell no lower than 11°C or 12°C widely across southern England and Wales. The UK recorded its highest daily minimum temperature on record on Christmas Day with 12.4°C at Exeter Airport and East Malling, Kent.

Further details for each month of the year and each day of the month are provided within the Met Office Monthly Climate Summaries and Daily Weather Summaries available from the Met Office Digital Library and Archive.



	1961–1990	1991–2020	2014–2023	2023
Central England	9.47	10.23	10.72	11.13
England	9.04	9.96	10.45	10.89

FIGURE 16 Annual mean temperature for Central England (CET), 1659–2023, and England, 1884 to 2023, as anomalies relative to 1991–2020. The table shows actual values ($^{\circ}\text{C}$).

FIGURE 17 Seasonal mean CET trends 1659–2023 (winter 1660–2023), as anomalies relative to 1991–2020, showing the smoothed trends for each series using a weighted kernel filter described in Appendix B1.

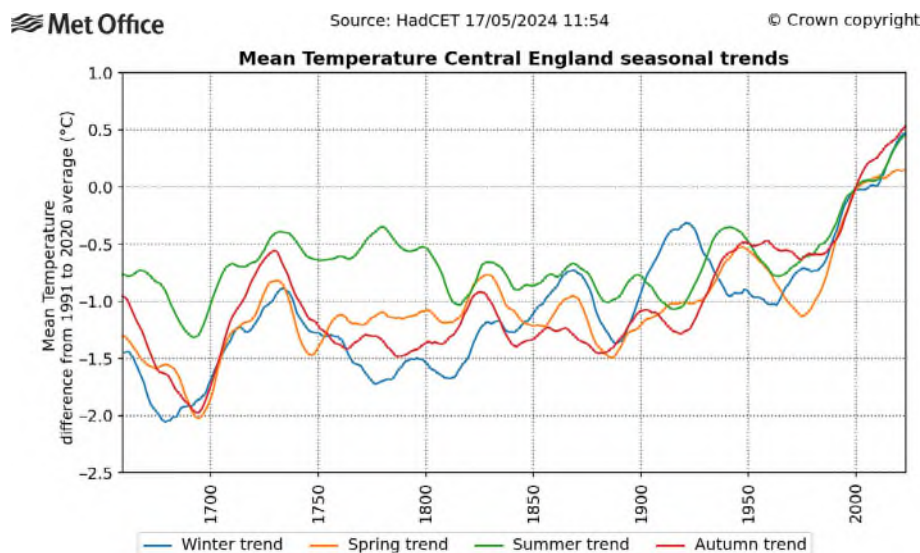


TABLE 3 Centennial averages for CET (°C) 1659–2023 (winter from 1660 to 2023).

Season	1659–1700	1701–1800	1801–1900	1901–2000	2001–2023
Year	8.67	9.18	9.15	9.52	10.45
Winter	2.96	3.51	3.65	4.19	5.00
Spring	7.53	8.07	8.12	8.42	9.34
Summer	14.95	15.46	15.20	15.35	16.22
Autumn	9.14	9.59	9.51	10.02	11.12

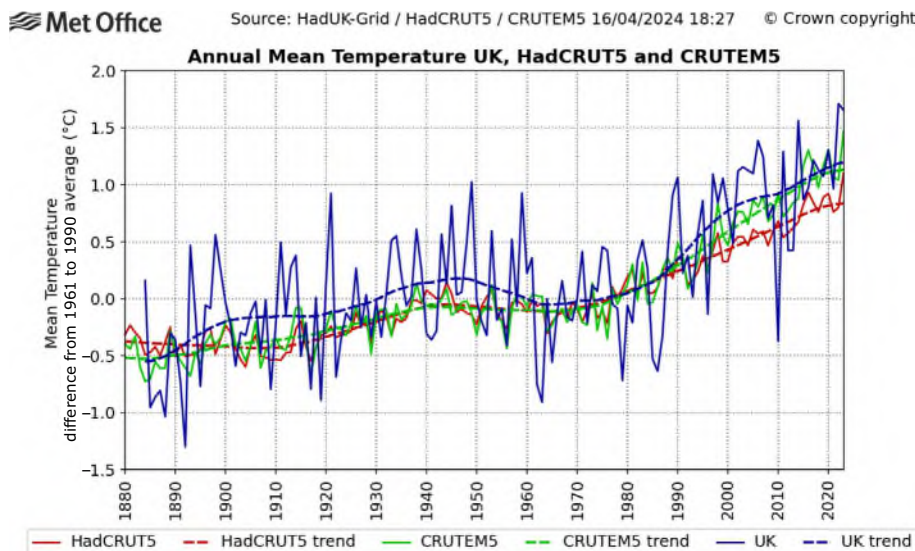
Tables 4 and 5 show highest, lowest and percentiles of the annual distribution of UK mean daily maximum and mean daily minimum temperature as averages for 1961–1990, 1991–2020 and the most recent decade 2014–2023, and actual values for year 2023. These give an indication of how these daily temperature distributions have changed over time, providing more information than a simple annual mean, with changes in the extremes of the distribution of particular interest. For the most recent decade 2014–2023, the median $T_{\max}$ (50th percentile) has warmed by 1.2°C relative to 1961–1990 whereas the 99th $T_{\max}$ percentile (3 days of the year would be hotter than this) has warmed by 2.0°C, and the hottest day by 2.8°C. The median $T_{\min}$ has warmed by 0.9°C relative to 1961–1990 whereas the 1st percentile (3 days of the year would be cooler than this) has warmed by 1.7°C and the coldest day by 2.2°C. Some caution is needed interpreting these statistics but overall they suggest that extremes of temperature are changing faster than the mean.

Figure 22a–c present the results of an alternative analysis based on an absolute threshold approach. These show an average count of the number of days per year for 97 county areas of the UK in which the highest daily maximum temperature on that day *anywhere* within that county (i.e., the highest grid point value) has reached 20°C, 25°C and 28°C, respectively—for the periods 1961–

1990, 1991–2020, the most recent decade 2014–2023 and actual counts for year 2023. These thresholds could be described as ‘pleasant’, ‘warm’ and ‘hot’ days, with the analysis also repeated for ‘very hot’ days reaching 30°C and ‘extremely hot’ days exceeding 32°C.

The spatial variability on these maps is generally greatest for the most recent year 2023 and greater for the most recent decade 2014–2023 than for 1991–2020 and 1961–1990 since these compare 1-year actual counts and 10-year average counts against 30-year average counts. The scale on the maps varies: 20°C—up to 140 days (20 weeks); 25°C—up to 50 days (~7 weeks); 28°C—up to 20 days (~3 weeks), these days being most likely to occur during the climatologically warmest months. The *highest* maximum is defined as *anywhere* within that county-level reaching that threshold at 1 km grid-point resolution. On some days, the majority of grid points within that county may exceed the threshold. On others, it may be just a few points—although temperature tends to be a relatively smoothly varying field—with the most likely locations tending to be the climatologically warmest areas within each county, depending on weather patterns on that particular day.

The *highest* maximum is chosen, rather than the *average* maximum because the latter metric would be much more influenced by elevation and proximity to the



	1991–2020	2014–2023	2023
UK	0.83	1.25	1.66
HadCRUT5	0.54	0.85	1.10
CRUTEM5	0.74	1.15	1.47

Since the majority of the UK’s population tends to live at lower elevations within each county, the highest maximum is arguably judged as being more population-relevant. In Scotland, for example, a relatively high proportion of land area is at high elevation (above 500 masl) and mostly uninhabited.

The maps show that the highest counts for all thresholds occur across the climatologically warmest areas of the south-east, but with the red colours expanding markedly across the map from 1961–1990 to 1991–2020 to 2014–2023. For example, for 1961–1990 only Kent and Essex recorded between 100 and 120 days $\geq 20^{\circ}\text{C}$ on average per year, but for 1991–2020 this area has expanded to cover most south-east counties from Devon to Norfolk, and for the most recent decade 2014–2023 it has expanded again as far Lincolnshire, Nottinghamshire and Powys (east Wales), with most south-east counties from Hampshire to Suffolk recording between 120 and 140 days. The expansion of the area of darker shades is a common feature across all the maps ($\geq 20^{\circ}\text{C}$, $\geq 25^{\circ}\text{C}$, $\geq 28^{\circ}\text{C}$) and illustrates how the number of ‘pleasant’, ‘warm’ and ‘hot’ days each year has increased across all geographic regions of the UK (i.e., Wales, Scotland and Northern Ireland as well as England).

Table 6 presents summary statistics for all five thresholds, summed across all 97 county areas, with the last two columns the 2014–2023 percentage of 1991–2020 and 1961–1990. ‘Pleasant’ days for the most recent decade have increased by 10% compared with 1991–2020 and by 41% compared with 1961–1990. ‘Warm’ days have

FIGURE 18 Annual mean temperature for the UK from HadUK-Grid, 1884–2023, plotted alongside global annual mean temperature based on the HadCRUT5 dataset and global land only based on the CRUTEM5 dataset as anomalies relative to 1961–1990. The table shows anomaly values relative to 1961–1990 (°C).

increased by 18% and 63% respectively, and ‘hot’ days by 42% and 150%. These results show that while the number of ‘pleasant’, ‘warm’, ‘hot’, ‘very hot’ and ‘extremely hot’ days have all increased markedly, the increases are much more dramatic for the higher thresholds—with the number of ‘hot’ days more than doubling compared with 1961–1990 and the number of ‘very hot’ and ‘extremely hot’ days more than trebling. These results illustrate how the warming climate has the greatest implications for extremes of temperature, rather than average temperature, and this is particularly noteworthy because it is the extremes of temperature that usually have the greatest impacts (e.g., on human health). Table 6 also includes years 1976 and 2022 for comparison with 2023. Each of these years saw far higher counts of ‘hot’, ‘very hot’ and ‘extremely hot’ days overall compared with 2023, with the highest numbers of ‘warm’, ‘hot’ and ‘very hot’ days in 1976, reflecting the large spatial extent and long duration of the major heatwave in the UK that year.

2.5 | Days of air and ground frost

The UK experiences a very large spatial variation in the number of days of air and ground frost. The 1991–2020 annual average days of air frost ranges from more than 100 days across much of the high ground of Scotland to less than 10 days across parts of west Cornwall.

The average number of days of air frost for the UK for 2023 was 45 days, 8 days below the 1991–

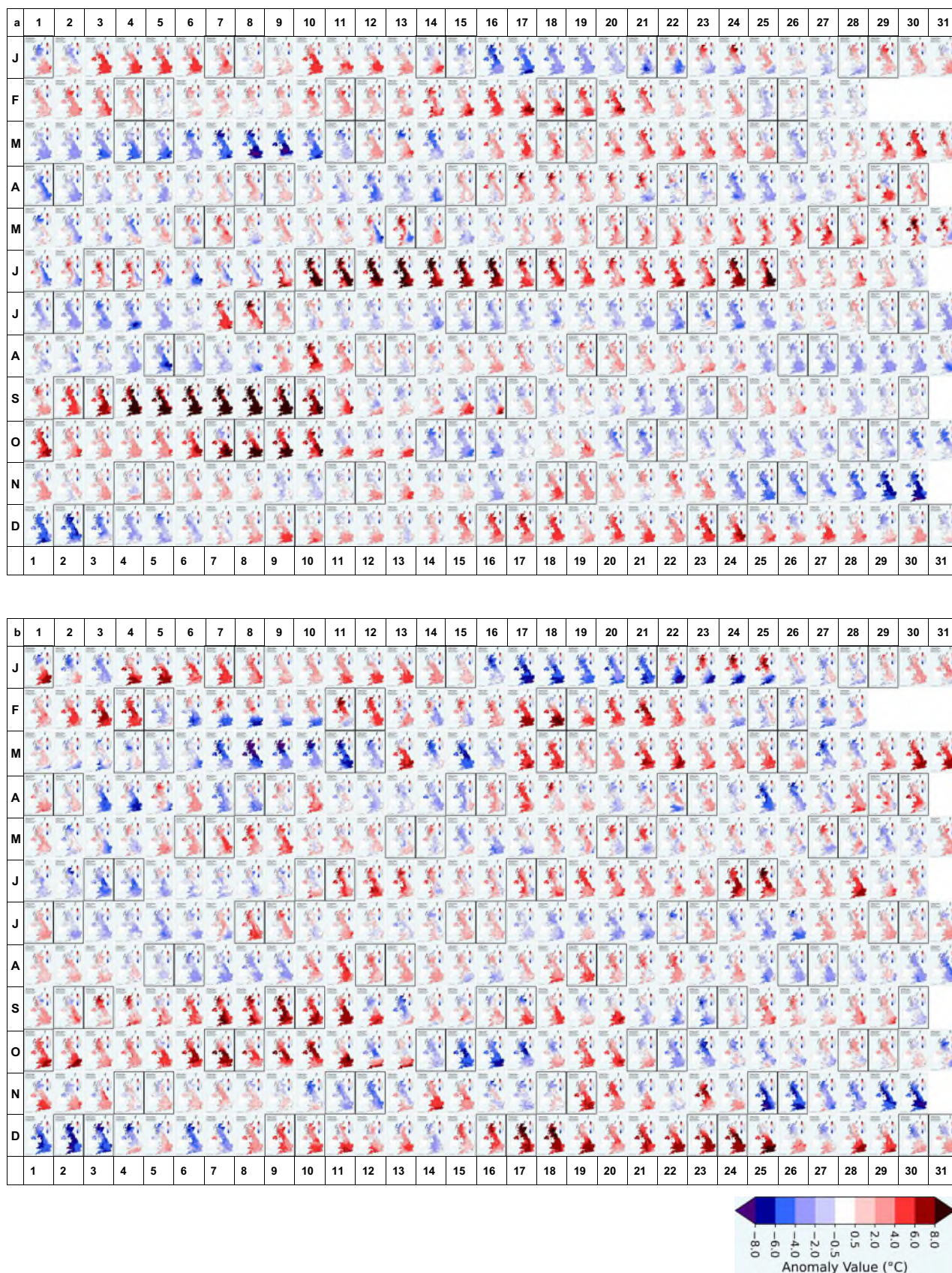


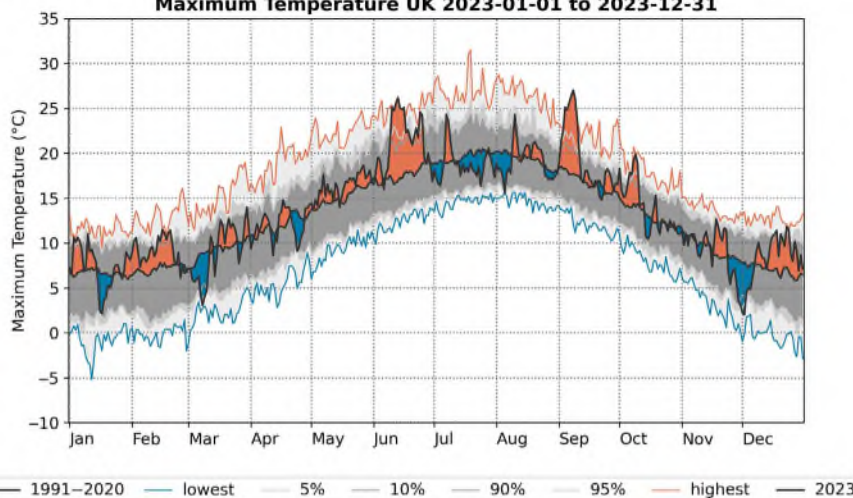
FIGURE 19 2023 daily anomalies relative to 1991–2020 monthly averages by month (top to bottom) and day (left to right) for (a) maximum and (b) minimum temperature. Weekends are displayed with a black border. The anomaly shading covers +8°C to −8°C.

Met Office

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Maximum Temperature UK 2023-01-01 to 2023-12-31



Met Office

Source: HadUK-Grid 17/05/2024 09:41

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Minimum Temperature UK 2023-01-01 to 2023-12-31

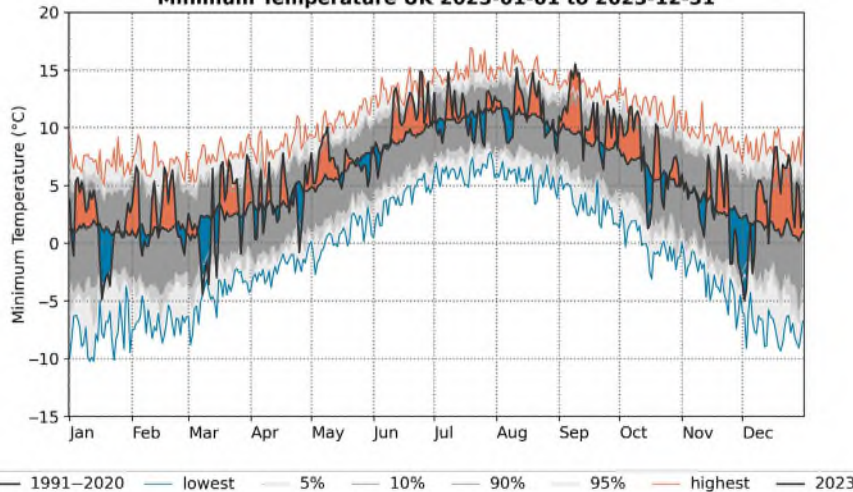


FIGURE 20 Daily anomalies for (a) UK mean maximum and (b) UK mean minimum temperature for each calendar day of the year 2023. The central black line shows the 1991–2020 average for each calendar day; the outermost red and blue lines the highest and lowest values and the grey shading the percentile values for each calendar day of the year based on the period 1960 to 2023 inclusive.

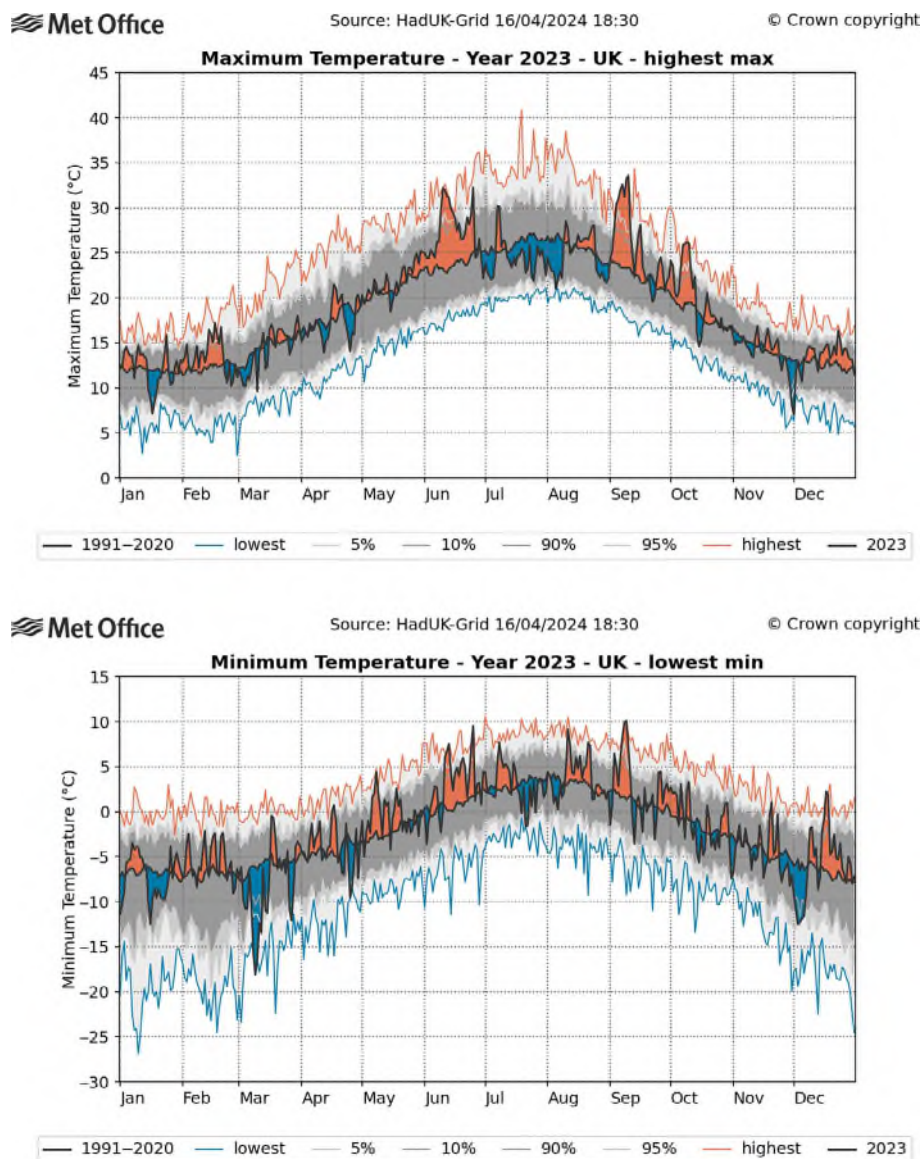
average, with a typically variable spatial pattern broadly similar across all countries (Figure 23a). The average number of days of ground frost for the UK was 79 days, 23 days below the 1991–2020 average, and more than 40 days below for some western and northern areas (Figure 23b). Air frosts were slightly above average in both March and November, but well below in February and December (Figure 24a), with these anomalies related to the timing of the spells of wintry weather in 2023 (mid-January, early March, late November to early December), and their relative absence through February and most of December (Figure 20b). After the first week of December, many stations in southern England recorded no further air frosts until January 2024. Ground frosts were near or below average for all months (Figure 24b).

The number of ground frosts in 2023 was second lowest in the series from 1961, behind 2014, whereas

the number of air frosts, while below normal, was not especially so for the series back to 1960 (Figure 25). The relative difference in the rank of 2023 between these two series might potentially be explained by fewer days with daily minimum temperatures in the 0°C–3°C category compared with other years (i.e., where there is a ground frost but not an air frost), but this has not been analysed.

The most recent decade 2014–2023 has had 6/11 fewer days of air/ground frosts compared with 1991–2020 and 17/28 days fewer than 1961–1990, the latter corresponding to more than 2 and 4 weeks, respectively. Remarkably, Wales and Scotland have effectively recorded a month fewer days of ground frost per year for the most recent decade 2014–2023 compared with 1961–1990. More than two-thirds of individual months in the most recent decade have seen fewer air and ground frosts than the 1991–2020 average (Figure 24).

FIGURE 21 Daily anomalies for (a) UK highest maximum and (b) UK lowest minimum temperature for each calendar day of the year 2023. The central black line shows the 1991–2020 average for each calendar day; the outermost red and blue lines the highest and lowest values and the grey shading the percentile values for each calendar day of the year based on the period 1960 to 2023 inclusive.



Appendix A8 explains how these areal-series are calculated. Note that air frosts are derived from daily minimum temperature grids which extend back to 1960 and ground frosts are derived from monthly ground frost grids which extend back to 1961, so both of these series are less than half the length of the monthly, seasonal and annual temperature series from 1884.

2.6 | Degree days

A degree day is an integration of temperature over time and is commonly used to relate temperature to particular impacts. It is typically estimated as the sum of degrees above or below a defined threshold each day over a fixed period of time. The standard degree days monitored by the Met Office are heating, cooling and growing degree days and in this report these are derived from daily

temperature grids which extend back to 1960. They relate to the requirement for heating or cooling of buildings to maintain comfortable temperatures (i.e., relating to energy demand), and the conditions suitable for plant growth respectively. These indices are useful metrics, but as they are derived from temperature only, users should be aware that other relevant factors such as solar gain, day length, wind and rain will also influence the actual responses of, for example, plant growth.

The thresholds used for heating degree days (HDD), cooling degree days (CDD) and growing degree days (GDD) are 15.5°C, 22°C and 5.5°C, respectively, and the formulae used are described in Appendix A5. HDD relate to heating requirements of buildings—that is, milder conditions result in lower HDD—so are greatest in the winter months. HDD presented here are for the calendar year, so these are split across two winters. In this report HDD and GDD anomalies are presented as percent

TABLE 4 Highest, lowest and percentiles of annual distributions of UK mean daily maximum temperature (°C), averaged for 1961–1990, 1991–2020, 2014–2023 and actual values for 2023.

	1961–1990	1991–2020	2014–2023	2023	2014–2023 diff from 1961 to 1990	2014–2023 diff from 1991 to 2020
Min	0.1	1.1	1.5	2.0	1.5	0.4
1%	1.5	2.3	2.8	2.8	1.2	0.4
5%	3.4	4.4	5.1	5.5	1.8	0.7
10%	4.7	6.0	6.6	6.9	1.8	0.6
25%	7.6	8.6	9.0	9.4	1.4	0.4
50%	11.8	12.6	13.0	12.8	1.2	0.4
75%	16.2	17.1	17.6	17.8	1.3	0.5
90%	18.9	19.7	20.0	20.7	1.1	0.3
95%	20.3	21.3	21.7	23.4	1.3	0.4
99%	22.8	23.7	24.8	25.8	2.0	1.1
Max	24.7	25.6	27.6	27.0	2.8	2.0

TABLE 5 Highest, lowest and percentiles of annual distributions of UK mean daily minimum temperature (°C), averaged for 1961–1990, 1991–2020, 2014–2023 and actual values for 2023.

	1961–1990	1991–2020	2014–2023	2023	2014–2023 diff from 1961 to 1990	2014–2023 diff from 1991 to 2020
Min	−7.0	−5.4	−4.8	−5.0	2.2	0.6
1%	−4.9	−3.7	−3.2	−3.8	1.7	0.5
5%	−2.5	−1.6	−1.1	−1.6	1.4	0.5
10%	−1.0	−0.4	0.2	0.3	1.2	0.6
25%	1.4	2.1	2.4	3.2	1.1	0.4
50%	4.9	5.5	5.8	6.5	0.9	0.3
75%	8.5	9.1	9.5	10.1	1.0	0.3
90%	10.6	11.3	11.7	12.3	1.1	0.3
95%	11.5	12.3	12.7	13.2	1.2	0.4
99%	13.0	13.9	14.2	14.9	1.2	0.3
Max	14.0	15.0	15.6	15.5	1.6	0.6

average, whereas CDD anomalies are presented as difference from average. This is because CDD average values for Scotland and Northern Ireland are very small and there is a very large annual variability in these series with many years having near-zero CDD values for these regions.

HDD for 2023 were below the 1991–2020 average for the UK (90%) and third lowest in the series from 1960 to marginally above 2022, the second lowest, and 2014, the lowest (Figure 26). There were three significant cold spells in which the UK average daily mean temperature fell below 0°C in in mid-January, early March and early December 2023 and these would have made the greatest contribution to the annual HDD total. The lowest 10 HDD years for the UK in this series from 1960 have all

occurred in the 21st Century of which five have been in the most recent decade 2014–2023. For the UK, the most recent decade 2014–2023 has had an annual average HDD 5% lower than 1991–2020 and 14% lower than 1961–1990, with these 10 years all below the 1991–2020 average. However, earlier years in the 21st century such as 2010, 2012 and 2013 show that above average HDD years are still possible.

Figure 27 shows average HDD for each county area of the UK for 1961–1990, 1991–2020, 2014–2023 and 2023. These charts illustrate the general contraction of HDD to the climatologically coldest northern parts of the UK, this widespread reduction in HDD being common across all counties of the UK as the climate continues to warm. A comparison between two example areas illustrates

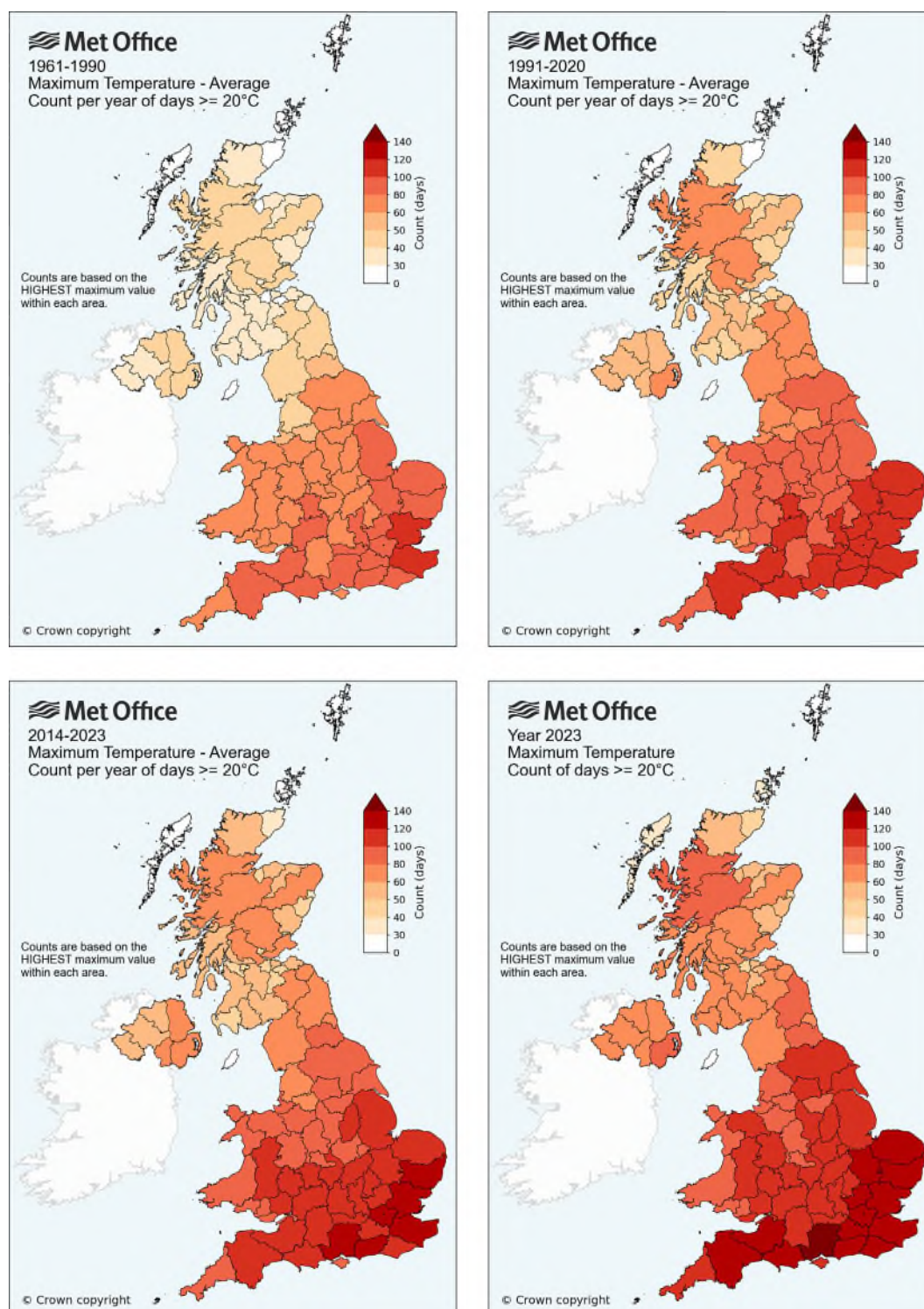


FIGURE 22 (a) Average count of the number of days per year in which the highest maximum temperature for each county of the UK has exceeded 20°C —indicating a ‘comfortable’ temperature—covering the periods 1961–1990, 1991–2020, 2014–2023 and actual counts for year 2023. The scale extends to 140 days. (b) As for Figure 22 exceeding 25°C —indicating a ‘warm’ day. The scale extends to 50 days. (c) As for Figure 22 exceeding 28°C —indicating a ‘hot’ day. The scale extends to 20 days.

geographic extent of this change in HDD; Lincolnshire (a relatively low-lying and largely rural county ~200 km to the north of London), and Greater London (the

warmest part of the UK for average annual mean temperature). HDD for Lincolnshire were 2505 HDD for 1961–1990, 2208 HDD for 1991–2020 and 2063 HDD for 181

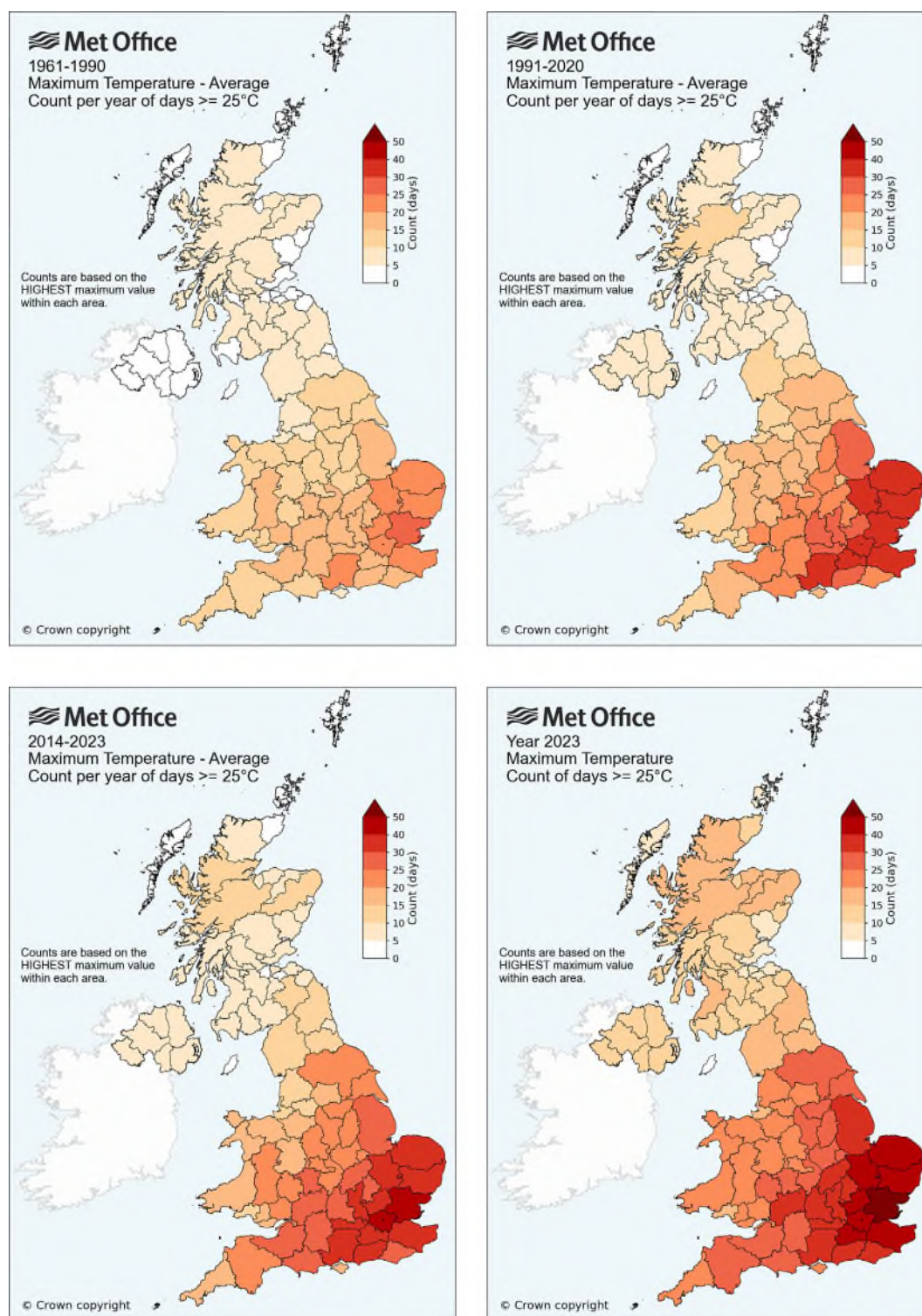


FIGURE 22 (Continued)

2023, representing an 18% reduction from 1961–1990 to 2014–2023. HDD for Lincolnshire for the most recent decade 2014–2023 were significantly lower than HDD for Greater London for 1961–1990 (2150 HDD).

CDD were well above the 1991–2020 average for all countries of the UK, but particularly England (34 CDD

compared with 22 CDD) and Wales (18 CDD compared with 10 CDD). The UK value for 2023 was 23 CDD, tenth highest in the series from 1960 (Figure 28). The most significant spells of heat were in June and September (Figure 20a)—with around a week in each month of temperatures widely exceeding 28°C . Despite the fact

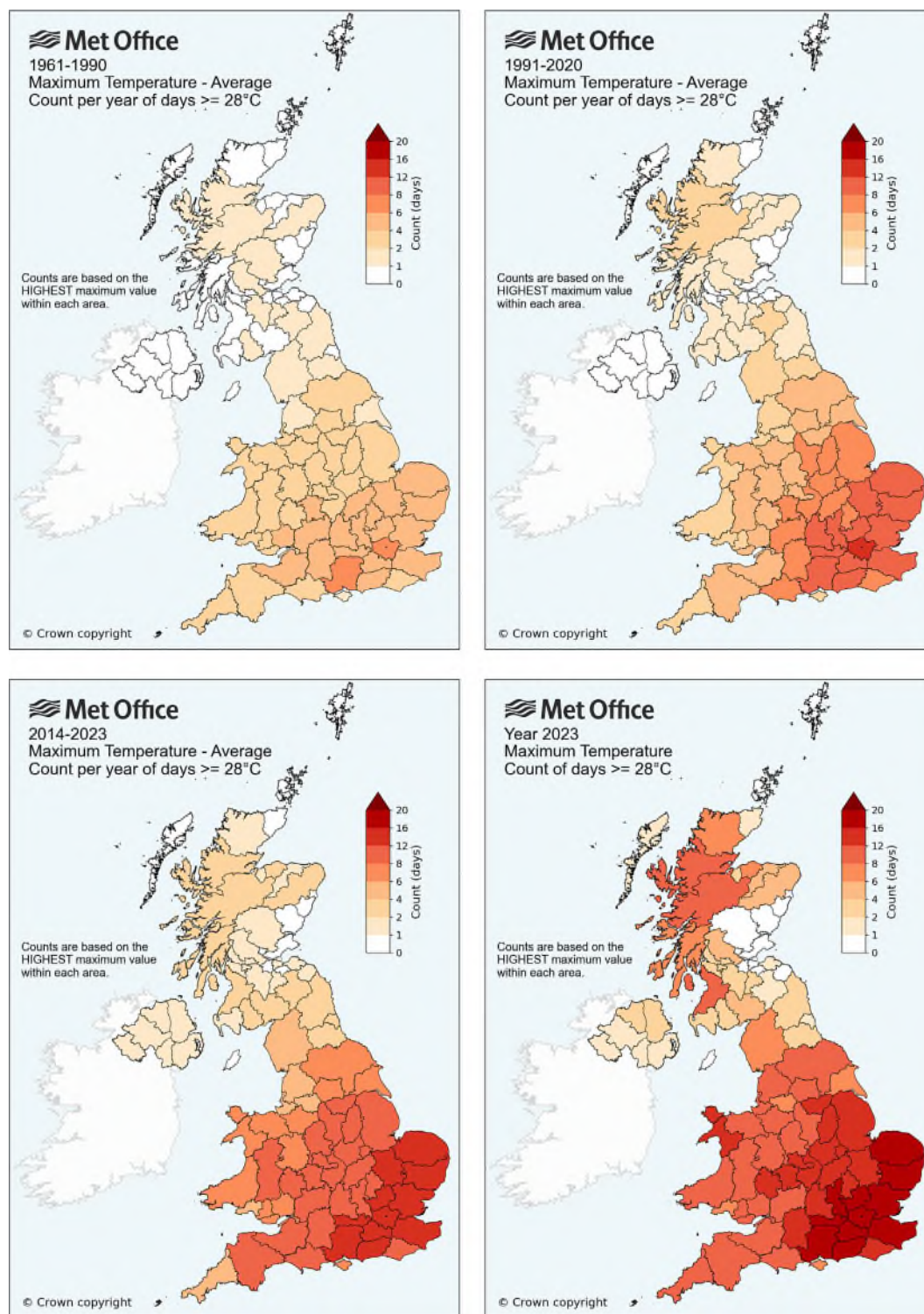


FIGURE 22 (Continued)

there were no notably hot spells (i.e., reaching 28°C widely) in either July or August (the climatologically warmest months of the year), CDD were still relatively high overall.

The UK CDD series is dominated by annual variability, to a much greater extent than either the HDD series

(Figure 26) or GDD series (Figure 30). HDD and GDD are very highly correlated with the UK annual T_{mean} series (Figure 11) (R^2 values 0.98 and 0.90, respectively). In contrast, the CDD correlation is much weaker (R^2 value 0.34) and this series is more closely correlated with the summer T_{mean} series (R^2 values 0.78).

peaks in CDD coincide with significant summer heat-waves (including 1976, 1995, 2003, 2006, 2018 and 2022) and to emphasize this point, 1976 and 1995 still have by a wide margin the highest CDD values in the UK series despite the underlying warming of the UK's climate. In 1976 and 1995, temperatures peaked at 35.6°C and 35.2°C respectively, relatively modest in the context of the last two decades. Both these summers saw prolonged periods of fine, warm weather, and it is this persistence of warmth, rather than any extremes of temperature, that make 1976 and 1995 the highest in the CDD series for the UK.

Nevertheless, despite this large annual variability in the series and much weaker correlation with mean temperature, there is still an underlying rising trend since 1960. For England, the most recent decade has had 7 CDD more than 1991–2020 and 16 more than 1961–1990—representing a doubling of CDD over this period.

Figure 29 shows average CDD for each county area of the UK for 1961–1990, 1991–2020, 2014–2023 and 2023. These charts illustrate the general expansion of CDD from the climatologically warmest south-east parts of the UK. Taking the same two illustrative areas as for HDD, average CDD for Lincolnshire were 15 CDD for 1961–1990, 27 CDD for 1991–2020 and 35 CDD for 2014–2023, representing a more than doubling in CDD from 1961–1990 to 2014–2023. As a consequence, CDD for Lincolnshire for the most recent decade 2014–2023 were significantly higher than CDD for Greater London for 1961–1990 (30 CDD).

GDD for 2023 were around 114% of average across the UK and the second highest in the series, behind 2022 (Figure 30). The 10 highest GDD years for the UK in this series from 1960 have all occurred since 1995, of which six have been in the most recent decade 2014–2023. The most recent decade has had an annual GDD 6% higher than 1991–2020 and 21% higher than 1961–1990. The similar (downward) trend in HDD and (upward) trend in

CDD and GDD from 1960 to date each reflect the underlying warming of the UK's climate, coupled with fewer frosts resulting in an extended growing season. Phenology data for ‘first leaf’ and ‘bare tree’ dates of four common shrub or tree species are presented in Section 10.

As for CDD, the maps for GDD show the similar general expansion of GDD from 1961–1990 to 1991–2020 to 2014–2023 (Figure 31). Taking the same two illustrative areas again, average GDD for Lincolnshire were 1706 GDD for 1961–1990, 1980 GDD for 1991–2020 and 2115 GDD for 2014–2023, representing a 24% increase from 1961–1990 to 2014–2023. As a consequence, GDD for Lincolnshire for the most recent decade 2014–2023 were significantly higher than GDD for Greater London for 1961–1990 (2059 GDD).

2.7 | Coastal waters

The annual mean sea-surface temperature (SST) for 2023 for near-coast waters around the UK was 1.3°C above the 1961–1990 long term average making this the UK's warmest year for near-coast SST in a series from 1870 for the second successive year (Figure 32). See Appendix A11 for details of the UK near-coast SST series. The most recent decade 2014–2023 has been 0.3°C warmer than the 1991–2020 long term average and 0.9°C warmer than 1961–1990. This compares to the most recent decade being 0.42°C warmer than 1991–2020 and 1.25°C warmer than 1961–1990 over UK land (Table 2), with the greater warming over land than sea observed around the UK consistent with that observed globally (IPCC, 2021, see also Section 2.3). Six years of the most recent decade (2014–2023) for UK near-coast SST are within the top-ten warmest in the series, and all top-ten warmest years in the series have occurred in the 21st Century. The warming trend around the UK is not uniform but greatest across the southern North Sea and least in the Atlantic to

TABLE 6 Average count of the number of days per year in which the highest maximum temperature for each county of the UK has exceeded 20°C, 25°C, 28°C, 30°C and 32°C, as a sum across all 97 counties—covering the periods 1961–1990, 1991–2020, 2014–2023 and actual counts for year 2023.

	1961–1990	1991–2020	2014–2023	1976	2022	2023	2014–2023% of 1961–1990	2014–2023% of 1991–2020
20°C—comfortable	5544	7093	7806	7698	8430	8604	141	110
25°C—warm	1002	1387	1634	3229	2397	2070	163	118
28°C—hot	223	393	558	1379	1006	755	250	142
30°C—very hot	72	144	240	700	580	226	332	167
32°C—extremely hot	24	39	87	305	316	28	364	223

Note: Actual counts for years 2022 and 1976 are also included for comparison with year 2023.

the west of the UK (Cornes et al., 2023). Section 9.1 on the record warm June provides more detail of monthly UK near-coast SST for the most recent decade 2014–2023.

Near-coast SST is highly correlated with the land observations (R^2 value 0.86, see Appendix B4) with a root mean square difference of $<0.3^\circ\text{C}$. The SST series is entirely independent from observations from the UK land network. Some differences between historical trends in these series are apparent, notably in the period pre-1900. However, these differences are also apparent in the CET series, also shown in Figure 32, which closely follows the UK series. Uncertainties in the SST dataset will generally

be larger at smaller scales (such as UK near-coast) and can include uncertainty in the bias adjustments applied to minimize the effect of instrumentation changes.

3 | PRECIPITATION

3.1 | Annual, seasonal and monthly rainfall

The UK rainfall total for 2023 was 1319 mm, 113% of the 1991–2020 average. This was the seventh wettest year for

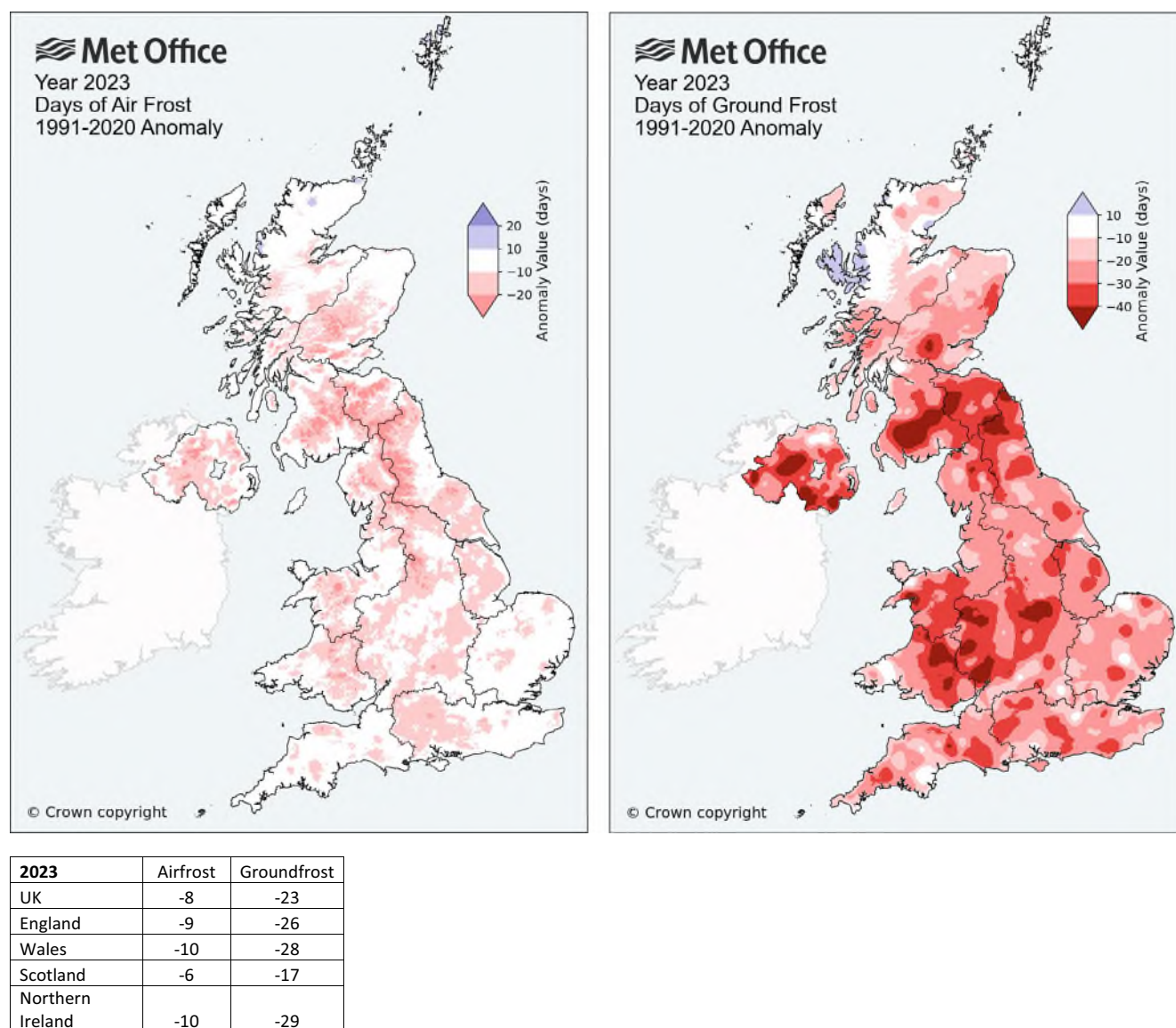


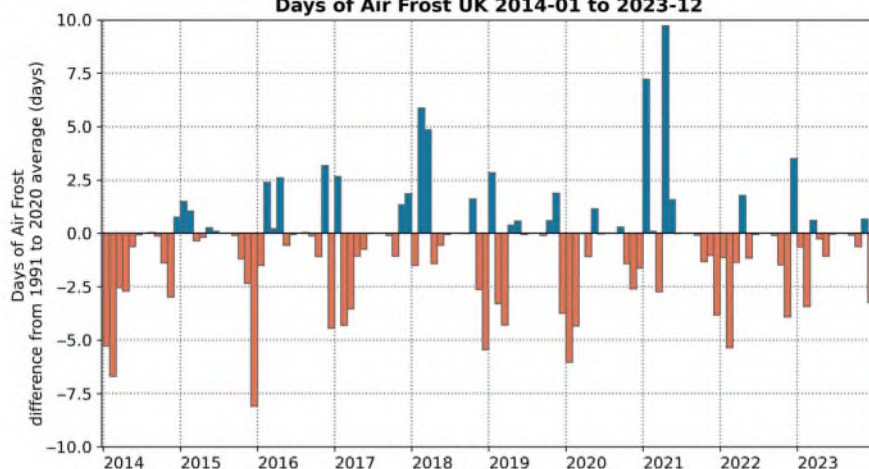
FIGURE 23 Days of (a) air frost and (b) ground frost for year 2023 relative to 1991–2020. The table shows anomaly values relative to 1991–2020 (days). The gridding process aims to strike a balance between a spatially smoothed field and the local characteristics of individual stations. Bulls-eye features in these maps are likely to be due to localized factors such as frost hollow effects at individual weather stations (present in either the actual or long term average grids) which the gridding process is unable to fully represent, particularly for ground frost.

Met Office

Source: HadUK-Grid 16/05/2024 17:30

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Days of Air Frost UK 2014-01 to 2023-12



Met Office

Source: HadUK-Grid 16/05/2024 17:31

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Days of Ground Frost UK 2014-01 to 2023-12

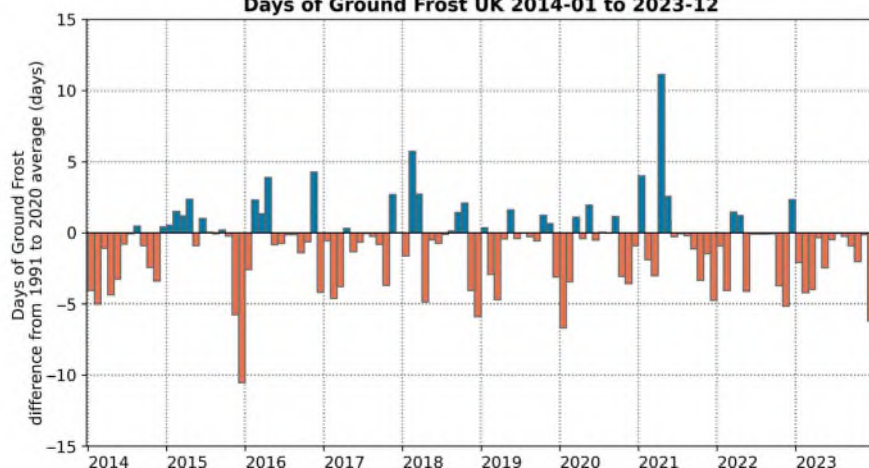


FIGURE 24 UK monthly days of (a) air frost and (b) ground frost anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months).

the UK in the series from 1836 (2020 was the only wetter year in the most recent decade 2014–2023). Rainfall totals were above average across all the UK except western Scotland, with much of eastern Scotland, the southern half of Northern Ireland, a swathe of northern England to East Anglia and parts of central southern England recording 125% or more (Figure 33). The year was ranked in the top-ten wettest for many counties in these areas (Figure 34a) and was the fourth wettest year for England, ninth wettest for Wales and third wettest for Northern Ireland. A few rain-gauges recorded over 150% of average (e.g., parts of Wiltshire and the Isle of Wight).

Figure 34b shows the wettest year on record for the 97 counties of the UK. Across most of the UK, the wettest year on record is 1872. However, this is not true across all parts of the UK, with recent years such as 2011, 2012 and 2015 the wettest on record for some counties. Despite the wet year overall, there were no individual counties where 2023 was the wettest year on record. In terms of annual totals, the wettest locations in 2023 were in the

Cumbrian fells with several rain-gauges recording over 4000 mm (e.g., 4436 mm/4234 mm 118%/119% of the 1991–2020 average at Honister Pass and Seathwaite, respectively). The driest locations in Kent and Suffolk recorded less than 600 mm (e.g., 567.3 mm/577.1 mm at Scarhouse, Suffolk and Dartford, Kent although these were nevertheless still slightly wetter than average with 108%/104%, respectively).

Figures 35 and 36 show seasonal and monthly rainfall anomalies for the UK for 2023. Table 7 shows monthly, seasonal and annual actual and anomaly values and ranks for the UK and countries for 2023. Figure 37 shows UK monthly rainfall anomalies for the most recent decade 2014–2023.

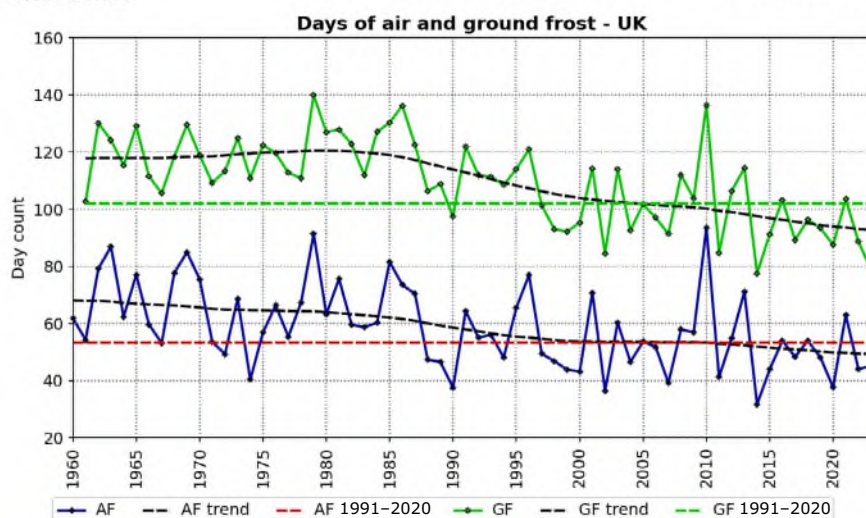
These figures illustrate the large spatial and temporal variability in UK rainfall—as is typically the case. March, July, September, October and December were much wetter than average with substantial areas of the UK recording more than twice the normal rainfall. Four months were in the top-ten wettest for the UK: March 186

FIGURE 25 Annual days of (a) air and (b) ground frosts for the UK, 1960–2023 and 1961–2023, respectively. The tables show actual values for the UK and countries (days), with anomaly values for 2014–2023 (days).

Met Office

Source: HadUK-Grid 16/04/2024 18:30

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	1961–1990	1991–2020	2014–2023		2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020
Air Frost						
UK	64	53	47	45	–17	–6
England	56	45	38	36	–19	–7
Wales	54	45	38	35	–17	–7
Scotland	83	72	67	66	–16	–5
Northern Ireland	54	41	37	32	–17	–5

	1961–1990	1991–2020	2014–2023		2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020
Ground Frost						
UK	119	102	91	79	–28	–11
England	111	96	86	71	–25	–10
Wales	110	92	79	64	–31	–14
Scotland	136	116	104	99	–32	–12
Northern Ireland	111	93	84	64	–27	–10

wettest, 158% of the 1991–2020 average), July (sixth wettest, 172%), October (sixth wettest, 145%) and December (equal-seventh wettest, 149%), the first year where this has happened for 4 months in the UK series from 1836.

While the wet March offset a dry February, and a wet July offset a dry June, overall, a general characteristic of the year was that the second half was wetter and more unsettled than the first half consistent with the monthly mean sea level pressure anomalies (Figure 2). The period July to December was the wettest second half of the year on record for the UK a series from 1836 (for Northern Ireland by a very wide margin). The fact that the wettest areas in October and December tended to coincide (e.g., in eastern Scotland and parts of northern England) had consequences for flooding (see Section 9). The driest months relative to average were February, May and June. England recorded its eighth driest February, while the consecutive dry months of May and June caused some impacts, for example, water scarcity issues in western Scotland.

With a slightly negative WNAO index (Section 1.2), winter was comparatively dry overall. Spring saw a marked north/south contrast in rainfall anomalies, and summer was wetter than average for most areas. Autumn was particularly wet across parts of Northern Ireland, eastern Scotland and eastern England, with the UK recording its equal-eighth wettest autumn (with 2022).

Table 8 shows monthly, seasonal and annual rainfall anomaly values for the UK and countries for the most recent decade 2014–2023 against both 1961–1990 and 1991–2020. The most recent decade 2014–2023 has been 2% wetter than 1991–2020 and 10% wetter than 1961–1990. UK winters have been 9% wetter than 1991–2020 and 24% wetter than 1961–1990. Increases have been less in summer and autumn, while spring overall has been slightly drier. February has seen the largest increase, with the most recent decade 15% wetter than 1991–2020 and 45% wetter than 1961–1990 (55% wetter than 1961–1990 for Scotland). April has seen the largest decrease, 187

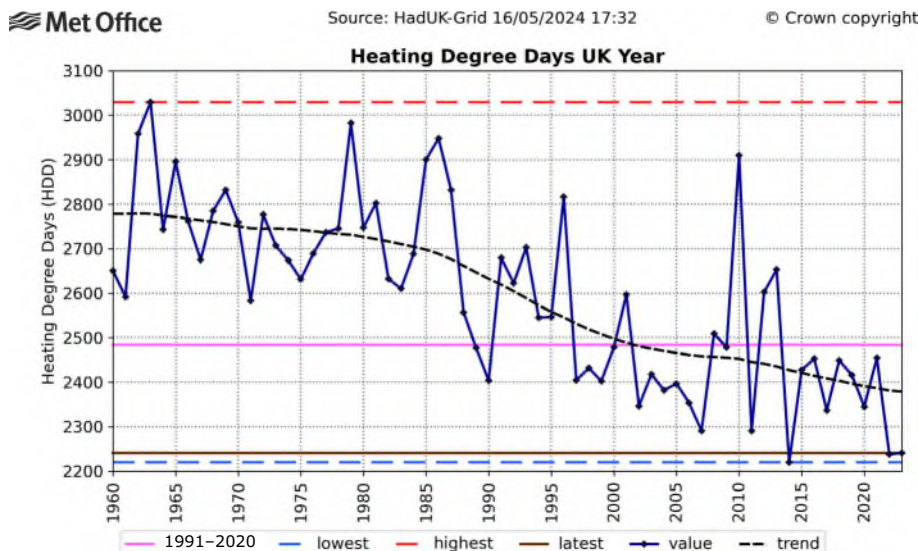


FIGURE 26 Annual heating degree days for the UK, 1960–2023. The table shows actual values for the UK and countries (HDD) with percentage of average values for 2014–2023 and 2023.

	1961–1990	1991–2020	2014–2023		2014–2023 % of 1961–1990	2014–2023 % of 1991–2020	2023 anom % of 1961–1990	2023 anom % of 1991–2020
UK	2739	2484	2358	2241	86	95	82	90
England	2521	2247	2108	1985	84	94	79	88
Wales	2620	2362	2228	2066	85	94	79	87
Scotland	3149	2923	2818	2740	89	96	87	94
Northern Ireland	2655	2425	2326	2114	88	96	80	87

the most recent decade being 26% drier than 1991–2020 and 20% drier than 1961–1990. Although the UK’s climate is getting wetter overall, the large annual and decadal variability in the UK’s precipitation means that caution is needed when interpreting trends over relatively short time periods, since averages may be strongly influenced by extreme years.

The UK annual precipitation time-series from 1836 to 2023 shows the large annual variability inherent in the UK’s climate. There has been an increase from the 1970s and 1980s onwards (Figure 38). The wettest year for the UK overall is 1872 (124% of average) and the driest 1855 (68%). Two years in the most recent decade 2014–2023 have been in the top-ten wettest (2020 and 2023); five have occurred in the 21st Century (2000, 2008, 2012, 2020 and 2023)—but none of the 10 driest years.

Figure 39 shows seasonal rainfall series for the UK from 1836 to 2023 (for winter 1837–2023). Similar to the annual series, the seasonal series are dominated by large inter-annual variability with some decadal variability. There has been a marked increase in winter rainfall in the last few decades. In the most recent decade 2014–2023, the winters of 2014, 2016 and 2020 have each been in the top-five wettest (the other winters being 1995 and 1990). Summer rainfall has also increased but from a drier period through the 1970s, 1980s and 1990s which included the record dry summers of 1976 and 1995.

Spring rainfall has decreased slightly since the relative high of the 1980s and 1990s, and autumn rainfall has increased slightly (see also Table 8). Since 2000, the UK has recorded its wettest February (2020), April (2012), June (2012), November (2009) and December (2015)—five out of 12 months, the wettest winter (2014) and autumn (2000), and the driest September (2014).

Figure 40a,b repeat the previous analysis shown in Figure 15 of the occurrence of monthly, seasonal and annual top-ten wettest and top-ten driest values for the 97 county areas of the UK. The average across the near 19 decades of the 188-year series from 1836 is 5.3% per decade (100/18.8, that is, what would be expected on average if these values were evenly spaced). Annual variability relative to the long term trend is much greater for UK rainfall compared with temperature, and rainfall also has a very much larger spatial variability. So, compared with temperature, the influence of climate change on the occurrence of these top-ten values in the rainfall series is as a consequence very much less pronounced. To illustrate this, for the UK overall, 16 months in the most recent decade 2014–2023 have been in the top-ten wettest of their respective monthly series compared with 31 in the top-ten warmest, five seasons have been in the top-ten wettest compared with 16 in the top-ten warmest, and two years in the top-ten wettest compared with six in the top-ten warmest.

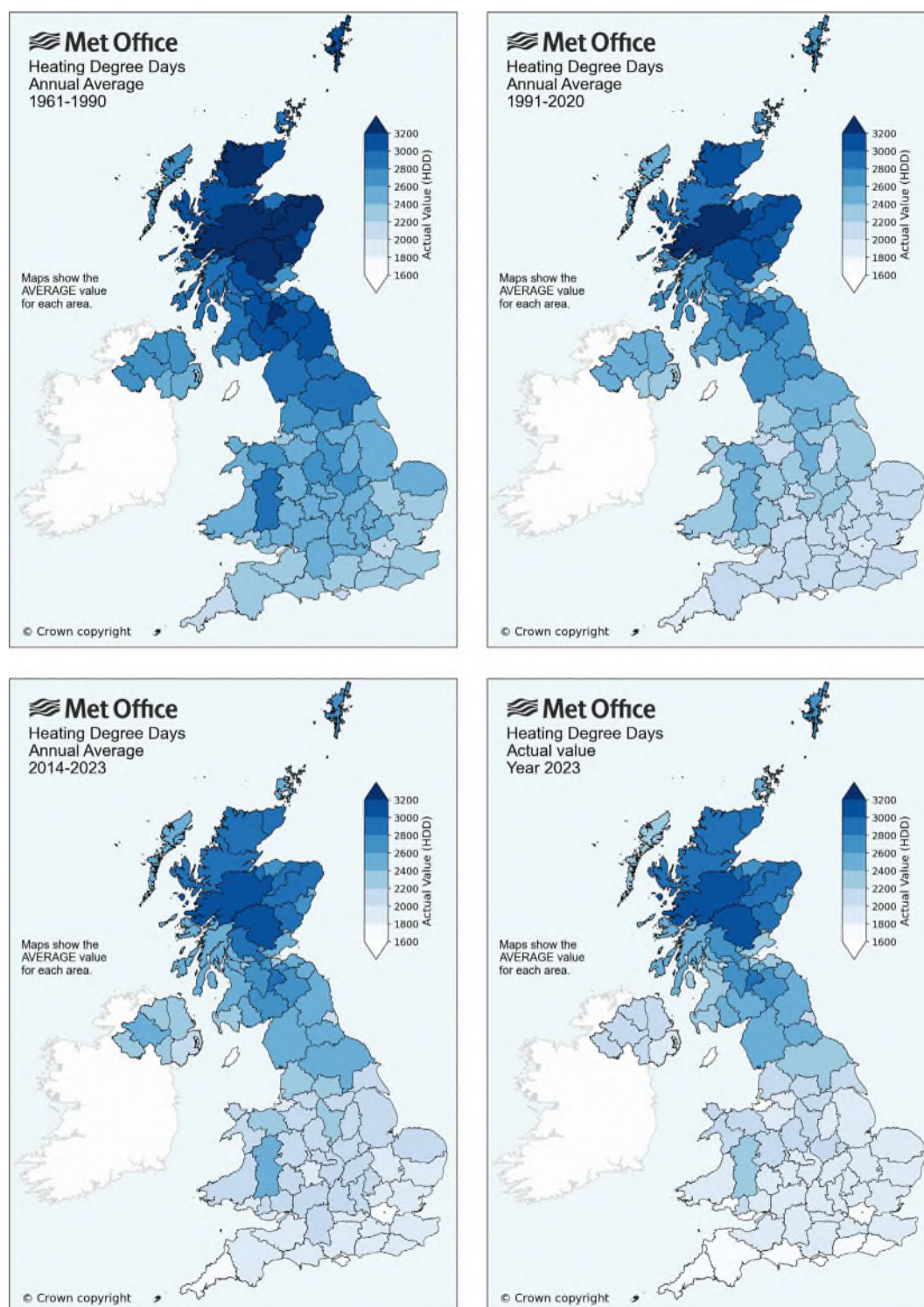


FIGURE 27 Annual average heating degree days per year for 1961–1990, 1991–2020 and 2014–2023 and annual actual heating degree days for 2023, as an average for each county of the UK.

Nevertheless, each of the last three decades 1994–2023 has still seen more monthly and seasonal top-ten wettest rainfall values than would be expected on average. These three decades together account for 23%/27% of all top-ten wettest monthly/seasonal values, respectively

(16% would be expected). Most notable, however, is the marked increase in the number of top-ten wettest annual values with the last three decades accounting for 41%, and the last decade 2014–2023 alone over 15%, three times what would be expected. So, overall, wh

occurrence of top-ten wettest monthly and seasonal values at county level is still predominantly associated with the variability of the UK's climate, it is particularly when averaging temporally to an annual timescale that the recent increased number of these values becomes apparent.

There is no obvious reducing trend in the occurrence of top-ten driest monthly, seasonal or annual values in the last three decades, although the number of annual values for the most recent decade (2014–2023) is notably low. Early decades in the series have generally higher counts of top-ten driest values.

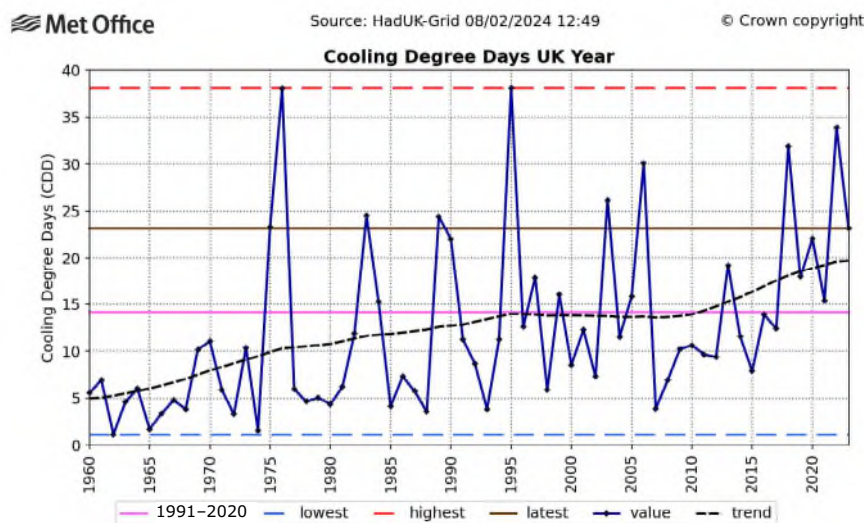
3.2 | England and Wales precipitation

The annual rainfall total for 2023 in the long running England and Wales precipitation (EWP) series was 1194 mm, which is 123% of the 1991–2020 average (Figure 41). This was the seventh wettest year in this series from 1766 and the wettest year since 2012. This series shows there are some notable decadal fluctuations in the series such as a wet period through the 1870s, and the ‘Long Drought’ from 1890 to 1910 (Marsh et al., 2007), which highlight the value of rainfall series before the 20th Century for understanding the full historical context of UK rainfall. The most

recent decade 2014–2023 is 3% wetter than 1991–2020 and 10% wetter than 1961–1990. Importantly, the England and Wales areal rainfall series based on 1 km resolution gridded data is very highly correlated to EWP for the period of overlap, with an R^2 value of 0.98 and root mean square difference of 1.8%. Minor differences between the series are inevitable due to the more limited sampling of stations used for the EWP series and the gridding method used for the England and Wales areal series.

Figure 42 shows trends in seasonal EWP rainfall amounts from 1766 to date, together with the England and Wales series from the HadUK-Grid dataset. The long term mean for the annual EWP series is comparatively stable, but this is not the case for the seasonal series. Some caution is needed interpreting these seasonal trends, however, the datasets show good agreement.

EWP shows a marked increase in winter rainfall. In the winter series to 2023, winter 2014 is the wettest winter on record, 2021 is ranked seventh wettest, 2016 ranked ninth wettest and 2020 ranked 12th wettest (Winter 2024—December 2023 to February 2024—is not included in this report but was provisionally ranked 6th wettest. The inclusion of this winter would also change the ranks for 2021, 2016 and 2020). Before 1900, EWP winter rainfall was substantially lower than autumn rainfall, but the increase in winter rainfall has meant that



	1961–1990	1991–2020	2014–2023	2023	2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020	2023 anom wrt 1961–1990	2023 anom wrt 1991–2020
UK	9	14	19	23	10	5	14	9
England	14	22	30	34	16	7	20	12
Wales	8	10	14	18	6	4	10	8
Scotland	3	3	4	8	2	1	6	5
Northern Ireland	3	4	6	9	3	2	6	5

FIGURE 28 Annual cooling degree days for the UK, 1960 to 2023. The table shows actual values for the UK and countries (CDD) with anomaly values for 2014–2023 and 2023 (CDD). Anomalies are presented as difference from average (instead of a percentage). This is because CDD are close to zero over much of Highland Scotland.

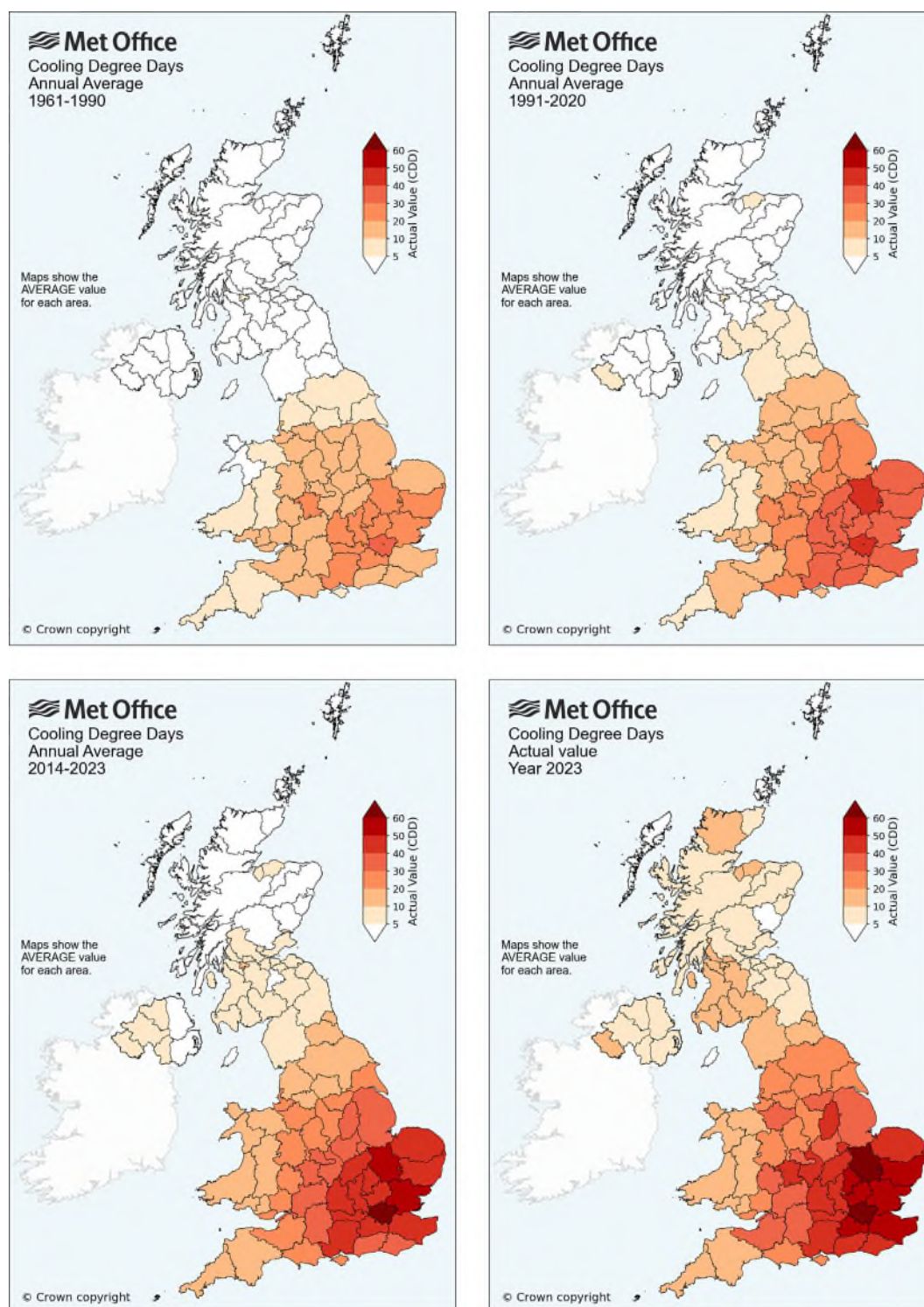


FIGURE 29 Annual average cooling degree days per year for 1961–1990, 1991–2020 and 2014–2023 and annual actual cooling degree days for 2023, as an average for each county of the UK.

from the early 20th Century onwards autumn and winter rainfall have been broadly comparable. However, autumn rainfall has also recently increased, with autumn 2000 the wettest autumn on record, autumn 2019 ranked fifth wettest and autumn 2023 ranked 12th wettest in this

series. There has been a slight reduction in summer rainfall, while spring rainfall has remained fairly steady.

These seasonal trends are very sensitive to the choice of start and end dates. There are also potential issues with the estimation of winter rainfall early in the 191

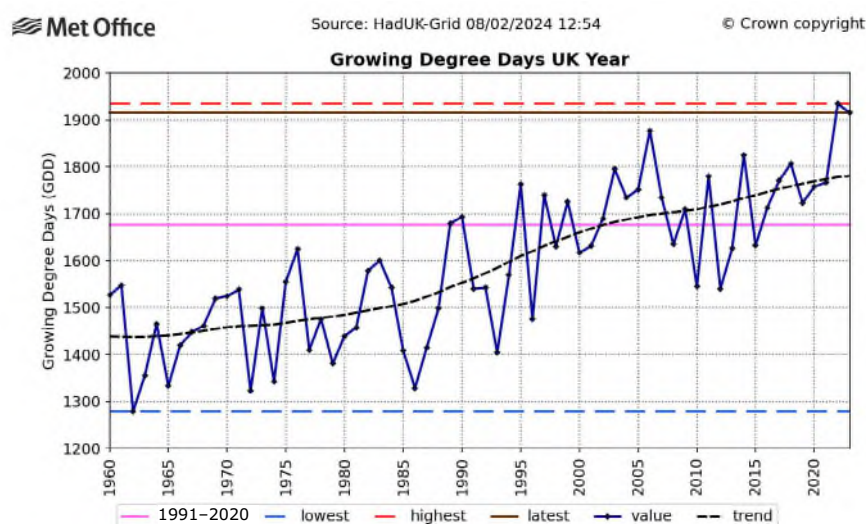


FIGURE 30 Annual growing degree days for the UK, 1960–2023. The table shows actual values for the UK and countries (GDD) with percentage of average values for 2014–2023 and 2023.

	1961–1990	1991–2020	2014–2023	2023	2014–2023 % of 1961–1990	2014–2023 % of 1991–2020	2023 anom % of 1961–1990	2023 anom % of 1991–2020
UK	1471	1676	1785	1915	121	106	130	114
England	1677	1920	2047	2182	122	107	130	114
Wales	1517	1723	1836	2003	121	107	132	116
Scotland	1124	1269	1348	1448	120	106	129	114
Northern Ireland	1424	1606	1692	1901	119	105	133	118

relating to the treatment of snow, before systematic meteorological observing networks were established, which could be associated with an underestimation (Murphy et al., 2020). The lower number of rain-gauges earlier in the series used to construct EWP and how well they represent the wetter upland parts of western Britain (where winter rainfall is likely to be higher) could also be a factor. Summer rainfall trends in the 18th and early 19th century are also subject to some uncertainty and possibly over estimated (Murphy et al., 2020).

The rainfall statistics throughout this report are presented to the nearest whole mm, but the uncertainties of the areal statistics relating to changes in the observing network change over time. The standard error can approach 1% or less when the network comprises several thousand rain gauges but approaches 4% in early decades where this number reduces. The uncertainties are therefore generally much smaller than the year to year variability, and more detail on this can be found in Appendix B2. However it is non-trivial to determine the robustness or significance of observed trends in rainfall as they are quite sensitive to region, season and choice of start and end dates.

2023 was the fifth wettest year at the Oxford Radcliffe Meteorological station in a series from 1767, with 929.5 mm (136% of the 1991–2020 long term average). The only wetter years in this 257 year series were 2012 (979.5 mm), 1960 (964.7 mm), 1852 (960.1 mm) and 1768 (932.7 mm).

3.3 | Daily rainfall

Figure 43 shows UK daily rainfall totals for each day of the calendar year 2023, and Figure 44 the time-series of UK area average daily rainfall. Figure 45 shows UK area average daily rainfall as an accumulation through the year. The most significant spells of dry weather (associated with high pressure bringing settled conditions) were in the second half of January and much of February, the second half of May, much of June, and early September, with rainfall deficits from the start of the year building up in early March, much of June and early July. In late May, the dry weather in the north and west of the UK led to concerns over wildfires (there was, e.g., a large scale wildfire at Cannich, near Inverness), and there were further wildfires in the West Highlands in mid-June, as well as water scarcity issues. For most of the UK the very wet second half to the year subsequently more than eliminated these deficits.

As occurs every year in the UK, there were various flood events during 2023. These are described below, although this is not a comprehensive list of all flood events to affect the UK, and attempting to summarize the large number of widespread events which typically happen is always challenging. Named storms are also described in Section 5. The two wettest days of the year for UK mean daily rainfall by a substantial margin 192

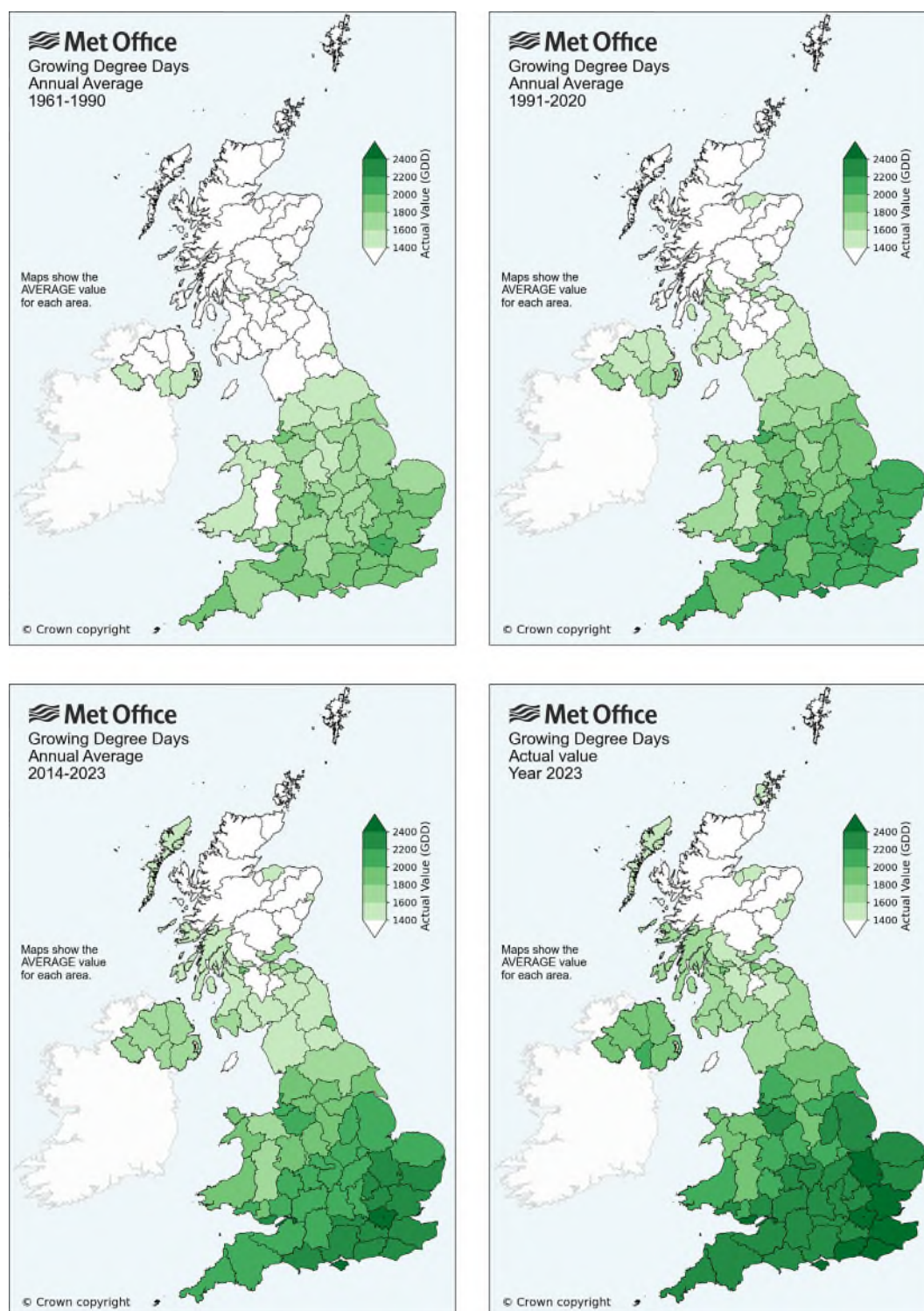
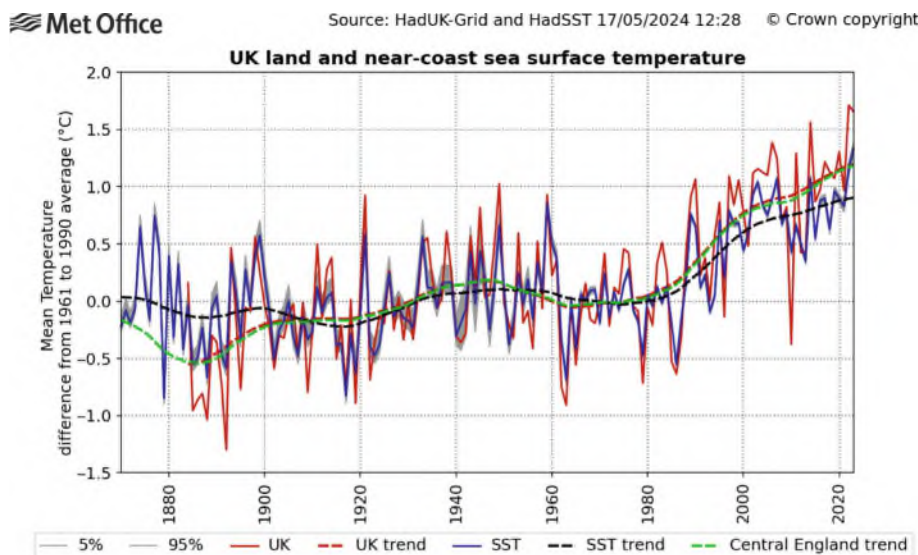


FIGURE 31 Annual average growing degree days per year for 1961–1990, 1991–2020 and 2014–2023 and annual actual growing degree days for 2023, as an average for each county of the UK.

19 October (20.1 mm storm Babet) and 27 December (17.2 mm storm Gerrit). The worst flooding of the year was for storm Babet (described in Section 9.4), and at a national scale this was the most significant flooding since storms Ciara and Dennis in February 2020. The sequence

of named storms through the autumn and early winter, including storm Gerrit, is described in Section 9.6.

Unsettled weather in early January led to some flood impacts. Many locations in the Welsh uplands and on Exmoor recorded over 150% of the January 1991



Area	1991–2020	2014–2023	2023
SST	0.6	0.9	1.3
UK	0.83	1.25	1.66
CET	0.76	1.25	1.66

average rainfall in the first 2 weeks, and there were flooding problems, for example, across the Somerset Levels and from the River Severn and River Exe (see cover image). Any flood impacts after this were fairly limited until June, although heavy rain affected parts of South Yorkshire and Lincolnshire just after mid-March.

The warmth of June triggered thunderstorms, leading to fairly widespread impacts from flash flooding, large hail and lightning strikes, for example, from 10th to 13th and 16th to 23rd. Unseasonably wet and unsettled weather in July also caused various flooding problems, for example, closure of the West Coast Main Line. July included a succession of particularly wet weekends with low pressure dominating (15th to 16th, 22nd to 23rd, 29th to 30th)—disappointingly poor weather at the height of summer after the promising start in June.

Storm Antoni in early August brought heavy rain and strong winds to Wales and the south-west, with some transport disruption and a number of events cancelled (with many people on holiday at this time of year). Parts of Merseyside and north Cheshire were affected by surface water flooding from 25 to 27 August and there were two fatalities when a car was submerged at a rail underpass in Liverpool. There was a thundery breakdown to the spell of hot weather in early September. On the 10th, thousands of runners taking part in the Great North Run (Newcastle upon Tyne) were stranded after the event due to major disruption to the transport network, with the South Shields Metro station closed while water was cleared from the tracks.

FIGURE 32 UK annual mean temperature over land 1884 to 2023, CET trend and UK annual mean sea surface temperature across near-coastal waters around the UK 1870–2023 as anomalies relative to 1961–1990. The figure shows the SST uncertainty range (5%–95%). The table shows anomaly values relative to 1961–1990 (°C).

The period from late September to December saw numerous flood impacts associated with persistent unsettled weather and Atlantic low pressure systems. Flash flooding on 17–18 September affected Devon and Somerset (with flooding at Exeter Airport), and there was further flooding in North Wales and parts of Cumbria on 19th. Exceptionally wet weather on 6–7 October affected Scotland, followed by storm Babet on 18th to 21st. These events are described in Sections 9.3 and 9.4. After Babet, flooding problems continued for the remainder of the month, affecting southern and eastern England, for example, Hampshire and the Isle of Wight, Nottinghamshire and Norfolk, and eastern Scotland but, especially, southern and eastern parts of Northern Ireland. There were major problems in counties Antrim, Armagh and Down, with numerous flooded properties and communities affected. From 18 to 31 October, County Down recorded an average rainfall total of 236 mm, twice the 1991–2020 October whole-month average, with 131 mm of this falling in the last 4 days alone. In this fortnight, Trassey Slievenaman in the Mourne Mountains recorded 489 mm, almost three times the October 1991–2020 average and equivalent to almost 35 mm/day.

The main impacts from storm Ciarán on 1–2 November were across the south of the UK from the strong winds, but this storm also brought flooding problems across East Anglia and south-west England. Across southern England and South Wales, 30–50 mm of rain fell over the two rain-days 31 October to 1 November from both Ciarán and the previous

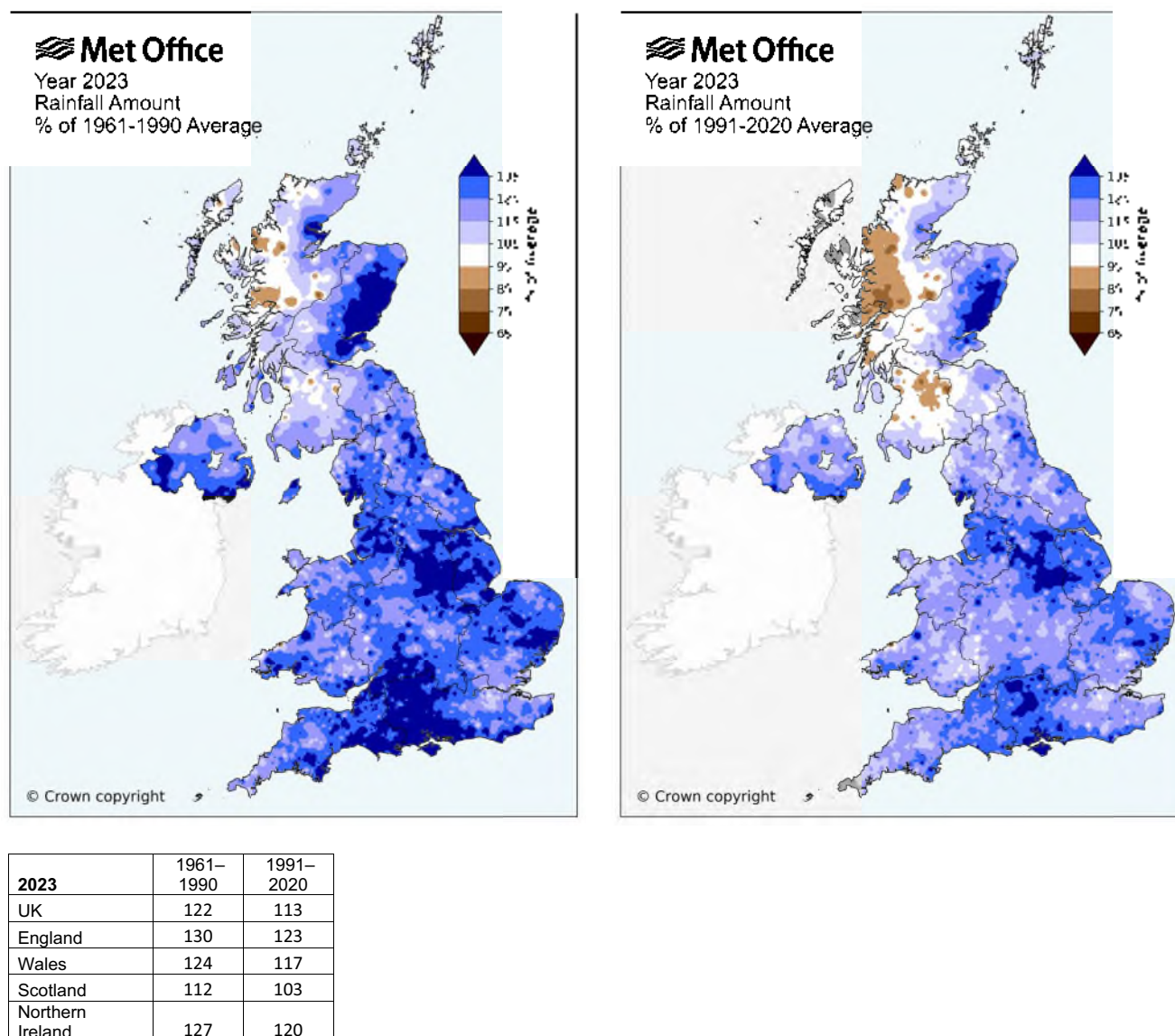


FIGURE 33 (a,b) Rainfall anomalies relative to 1961–1990 and 1991–2020 for year 2023. The table shows percentage of average values for the UK and countries.

pressure system, with 60 mm or more across parts of Cornwall and Devon. The prolonged wet weather also resulted in increasing concerns over groundwater flooding (e.g., in Dorset), with groundwater levels in many aquifers reported as exceptionally high for the time of year. November and December continued very unsettled, with further rain from storms Debi, Elin and Fergus and continuing flood impacts, followed by storms Pia and Gerrit on 21 and 27 December. The main flood impacts at this stage were as a result of the persistent wet weather from mid-September onwards, with flooding concerns for the River Severn, River Trent and River Ouse, culminating in significant flooding in early 2024 after the arrival of storm Henk on 2 January (see Section 9.6).

3.4 | Days of rain and rainfall intensity

The number of days of rain greater than or equal to 1 mm (RR1, 'wet days') for the UK during 2023 was 172 days—that is, not far short of half the year across the UK on average. This was 13 days more than the 1991–2020 long term average and the highest since 2014 (Figure 46a). England and Northern Ireland recorded over a fortnight of wet days more than normal (the latter the most since 1998), and Wales over 3 weeks more (the most since 2000). The number of wet days for Scotland was near normal overall; more than average in the east and fewer in the west.

For the UK overall, there were fewer wet days than average in February, May and June, but more **195**

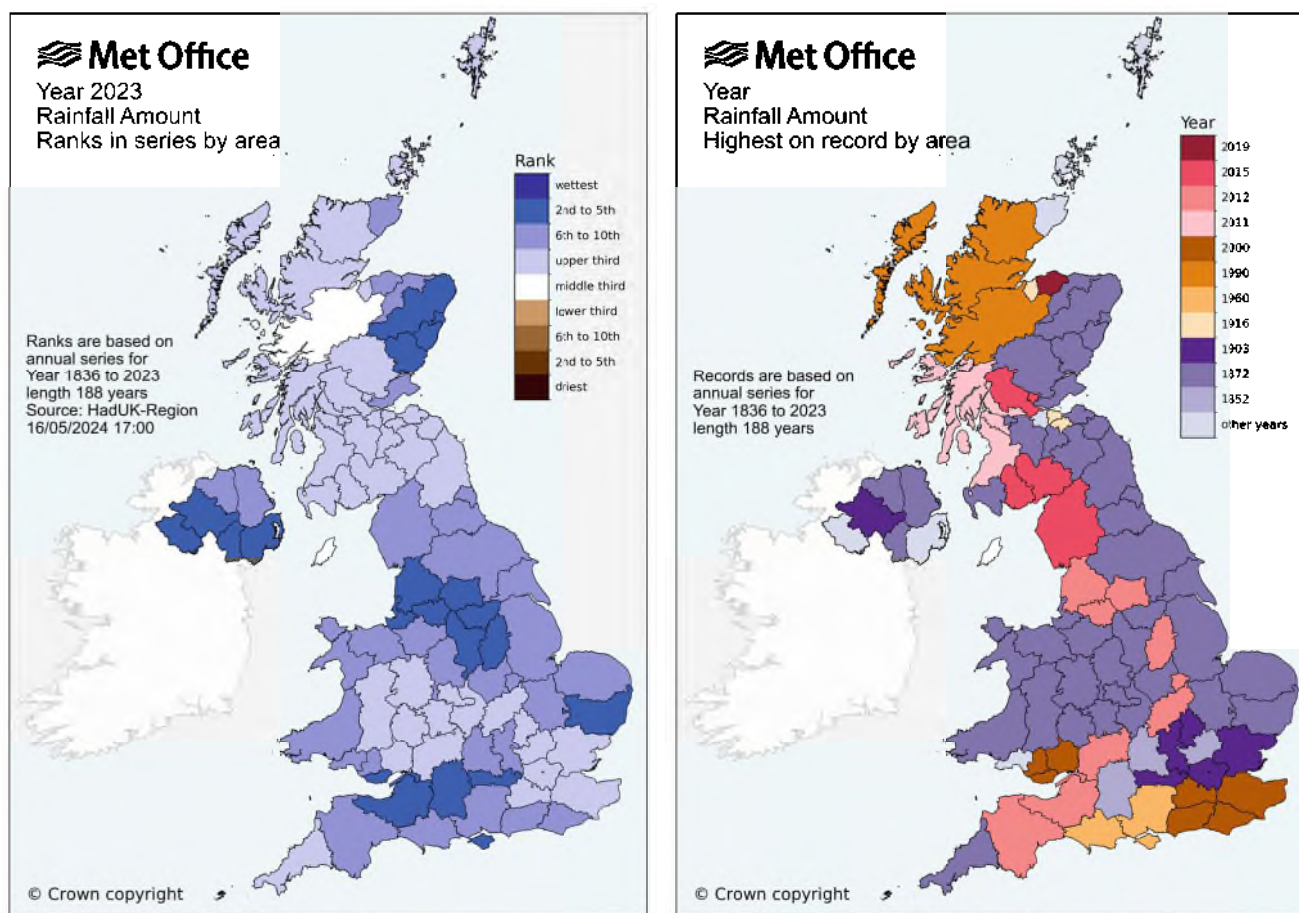


FIGURE 34 The rank of 2023 annual rainfall for all counties of the UK (a) and the wettest year on record all counties of the UK (b) based on series from 1836.

average for all other months—including July to December (Figure 47a). Monthly anomalies for wet days are fairly well correlated with monthly mean sea level pressure anomalies (Figure 2) with an R^2 value of 0.66. The peaks in the annual wet days series (1998, 2000, 2012, 2014, 2023) are all highly ranked in the UK annual rainfall series from 1836.

The number of days of rain greater than or equal to 10 mm (RR10, 'very wet days') for the UK during 2023 was 41 days, 6 days more than the 1991–2020 average and third highest in the series from 1961, behind 2000 and 2012 (Figure 46b). England, Wales and Northern Ireland all recorded over a week more very wet days. Monthly anomalies for very wet days were highest in July, October and December (Figure 47b).

The RR1 wet days series shows an increase from 154 days for 1961–1990 to 162 days for the most recent decade 2014–2023, and RR10 very wet days a similar increase from 31 days to 36. This suggests an increase in the number of days of widespread heavy rain across the UK in the last few decades, although caution is needed in the interpretation of the observed trend because both

time-series are relatively short given the large annual and decadal variability in UK rainfall.

Figure 48 shows an estimate of the areal-average rainfall intensity across the UK for each year from 1961 to 2023 (see Table A1 for definition). The figure is indicative of trends in rainfall intensity across the UK on wet days although, as with wet days and very wet days (RR1 and RR10), it neither provides a seasonal break-down, nor distinguishes between upland and lowland areas.

2023 was the fourth highest year for this metric, behind 2000, 2012 and 2020. As noted for the wet days series, these correspond to very wet years for the UK: 2000 (ranked 2 in the series from 1836), 2012 (rank 5), 2020 (rank 4) and 2023 (rank 7). There is a slight increase of 0.2 mm ($\sim 4\%$) when comparing the 1961–1990 and 1991–2020 averages, although the series is fairly flat from 1980 onwards. Again, this is a relatively short time-series dominated by year-to-year variability. The rainfall intensity series is fairly well correlated with the RR10 series (R^2 value 0.73), as would be expected because in years with a large number of very wet days (≥ 10 mm) the average rainfall intensity on wet days (≥ 1 mm) is high 196

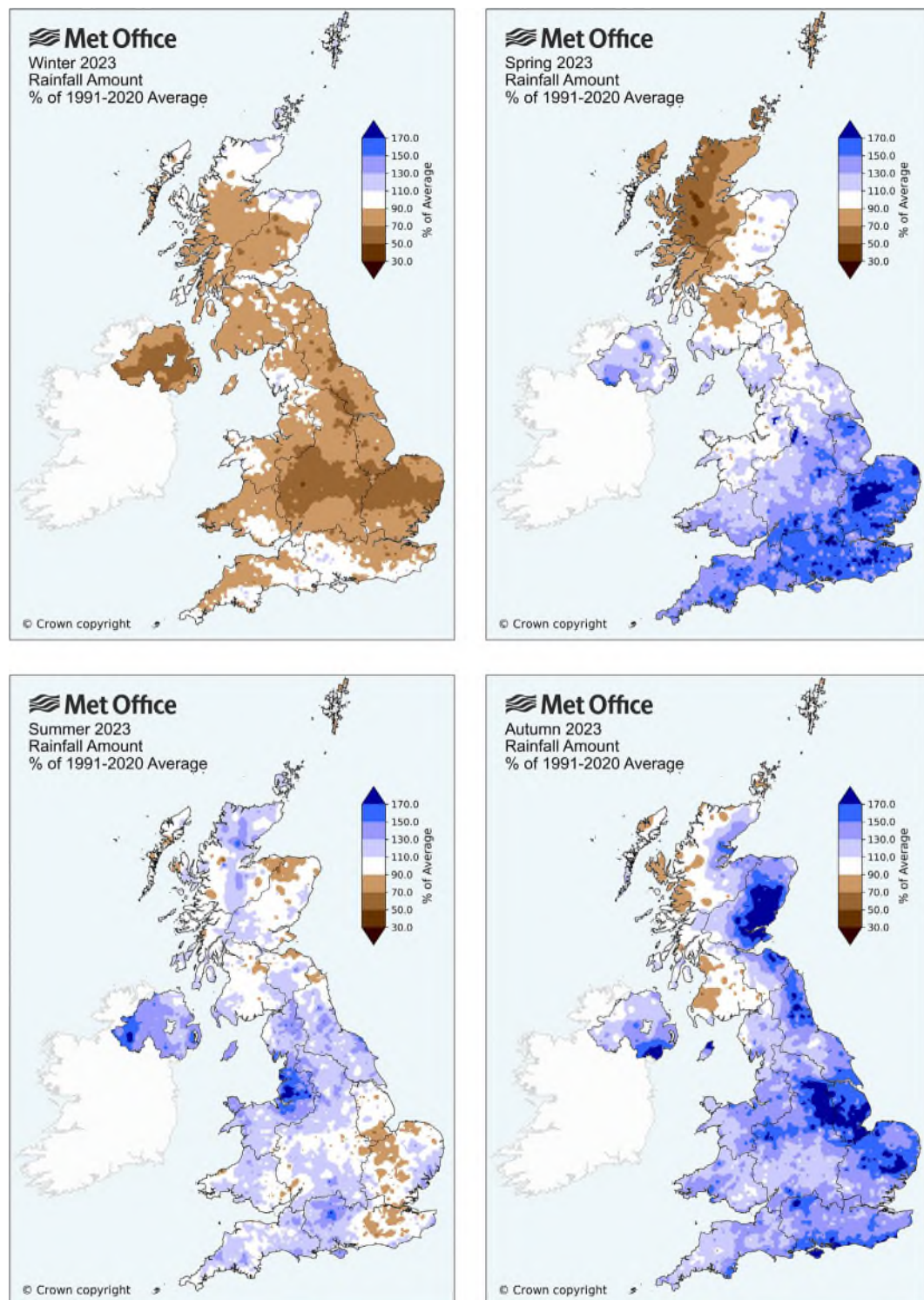


FIGURE 35 2023 seasonal rainfall anomalies relative to 1991–2020. Winter refers to the period December 2022 to February 2023.

contrast, there is low correlation between the rainfall intensity series and the RR1 series (R^2 value 0.23) because both these series use the same threshold (1 mm), and whereas RR1 simply relates to the number of days exceeding this threshold, rainfall intensity relates to the rainfall amounts on days exceeding this threshold.

3.5 | Heavy rainfall

Alternative metrics for heavy rain are presented here. Heavy rainfall is a complex variable to monitor due to its potential to be highly localized, while rainfall causing surface water flooding impacts is often of

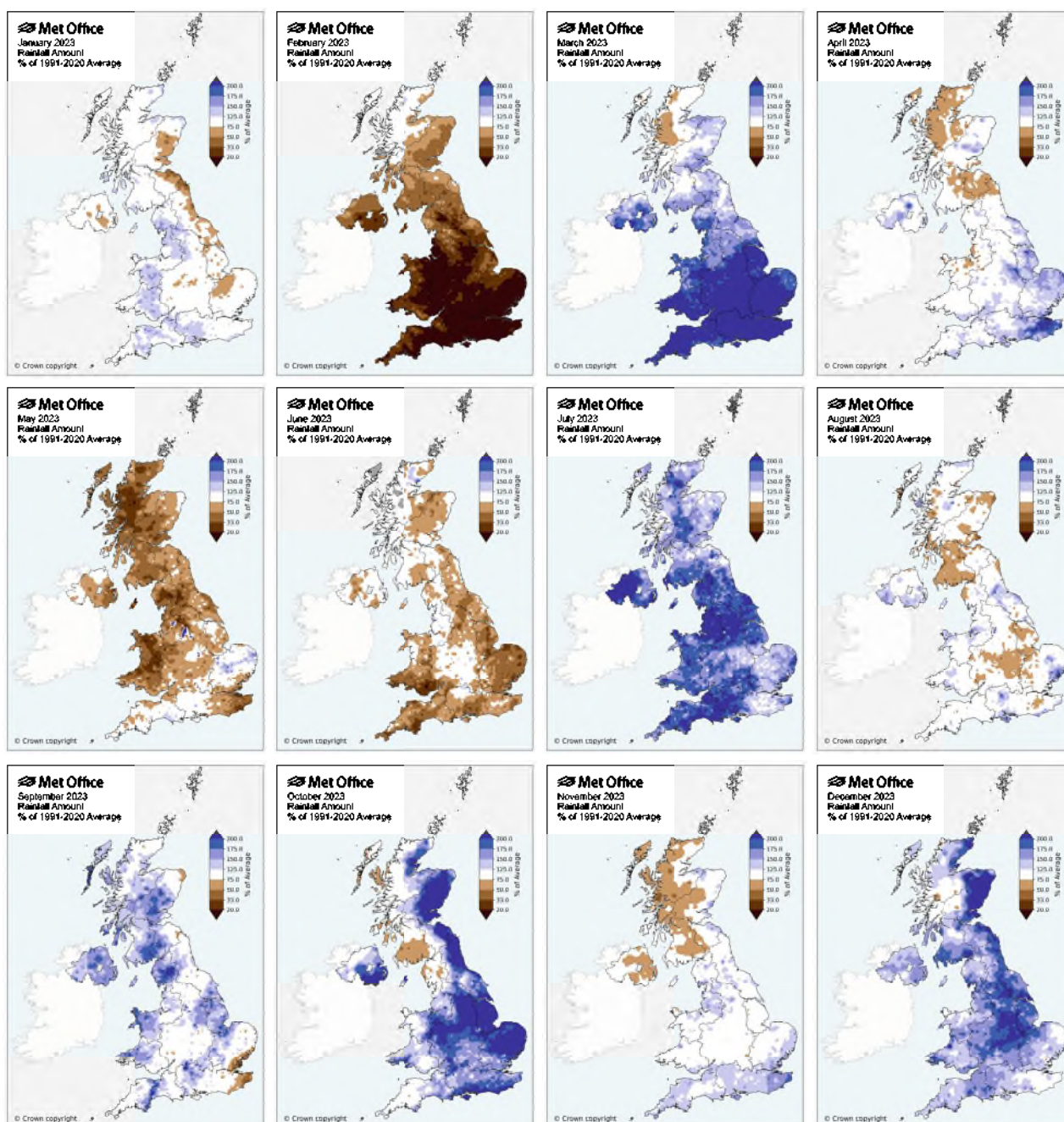


FIGURE 36 2023 monthly rainfall anomalies relative to 1991–2020. The legend scale ranges from 20% to 200%.

duration. These metrics adopt both a percentile approach and an absolute threshold. The ranking of individual years is quite sensitive to the choice of definition used and the series are relatively short in the context of the variability of rainfall, beginning only in 1961.

The limitation of the length of these series emphasizes in particular the importance of future work to digitize daily rainfall observations before 1961 in order to provide longer term context; especially given the very

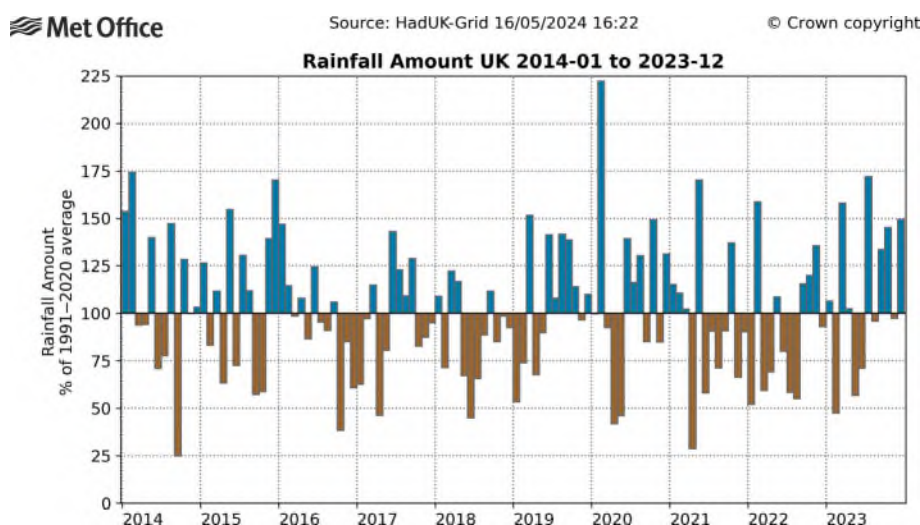
large variability in heavy rainfall events and the need to capture major rainfall events in earlier years. Nevertheless—there are some consistent features across these different metrics—most notably, more heavy rain events have been recorded in the most recent decade than in earlier decades in the series.

Figure 49a,b shows the number of days each year where the rainfall total has exceeded the 95th and 99th percentiles for wet days. The 95th and 99th percentiles are calculated at each grid point based on rainfall 198

TABLE 7 Monthly, seasonal and annual rainfall actual values (mm) and percentage of average values relative to 1991–2020 for the UK and countries for year 2023.

	UK		England		Wales		Scotland		Northern Ireland	
	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
January	129	106	91	110	198	128	179	101	102	89
February	46	47	15	23	27	22	103	73	35	38
March	134	158	123	210	210	203	132	106	142	164
April	73	102	68	121	84	95	76	82	90	121
May	40	57	40	71	36	41	40	45	49	66
June	55	71	42	65	49	53	75	81	68	83
July	142	172	122	183	180	182	158	152	182	204
August	90	96	73	98	122	109	103	86	120	121
September	121	134	84	123	161	144	170	138	136	156
October	178	145	151	167	216	136	212	126	185	162
November	120	97	111	120	174	107	125	76	95	78
December	190	149	145	158	259	147	248	142	178	147
Winter	293	85	200	83	394	87	433	88	226	69
Spring	248	109	231	135	330	118	249	81	281	120
Summer	287	113	237	115	350	116	337	106	370	137
Autumn	419	125	345	138	551	128	507	111	416	128
Annual	1319	113	1066	123	1716	117	1622	103	1383	120
Key										
	Driest on record	Top 10 driest	Dry: ranked in lower third of all years		Middle: ranked in middle third of all years		Wet: Ranked in upper third of all years		Top 10 wettest	Wettest on record

Note: Colour coding corresponds to the rank as given in the key below. The series lengths are 1836–2023 (188 years) except winter which is 1837–2023 (187 years).

FIGURE 37 UK monthly rainfall anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months).

over the period 1961–1990 on wet days—days exceeding 1 mm of rain; the UK value is the areal-average of the number of days calculated at each grid point. (Based on Figure 46a we would therefore expect about 5% of 154 = 7.7 days per year to exceed the 95th percentile for

the period 1961–1990—which is indeed the case; 154 is the 1961–1990 UK average number of wet days).

As with rainfall intensity, this neither includes a seasonal breakdown, nor does it distinguish between orographically enhanced frontal rain and convective rain. 199

TABLE 8 Monthly, seasonal and annual rainfall percentage of average values relative to 1961–1990 and 1991–2020 for the UK and countries for the decade 2014–2023.

	UK		England		Wales		Scotland		Northern Ireland	
	61–90	91–20	61–90	91–20	61–90	91–20	61–90	91–20	61–90	91–20
January	112	103	111	108	111	107	115	98	99	99
February	143	115	132	115	141	120	155	114	139	123
March	103	110	106	121	108	118	99	101	105	109
April	80	74	73	72	75	72	90	76	86	77
May	101	100	99	103	100	98	104	98	99	97
June	103	95	102	94	103	92	106	96	105	94
July	119	104	114	99	115	95	122	110	138	107
August	109	104	107	102	108	103	110	105	119	113
September	91	99	94	97	100	108	86	99	89	102
October	118	106	128	108	110	99	113	106	102	102
November	109	99	117	104	107	98	101	95	116	100
December	122	110	120	110	124	114	123	108	121	109
Winter	124	109	119	109	123	112	129	107	116	108
Spring	96	96	94	99	96	97	98	92	97	95
Summer	110	101	108	98	109	97	112	104	120	106
Autumn	106	102	114	104	106	101	101	100	103	102
Annual	110	102	110	103	110	103	110	101	110	103
Key	<80% 80%–90% 90%–95% 95%–105% 105%–110% 110%–120% >120%									

Note: Colour coding corresponds to the % of average values as given in the key below.

metric is based on a percentile approach with thresholds that vary geographically so that all parts of the UK will have an equal influence (the climatologically wetter parts of the UK in the north and west will have higher percentile thresholds than the drier parts in the south and east). This contrasts with the UK annual rainfall series which has the limitation that the climatologically wetter parts of the UK will have a greater influence and drier parts a lesser influence on the UK annual totals (see Appendix B3).

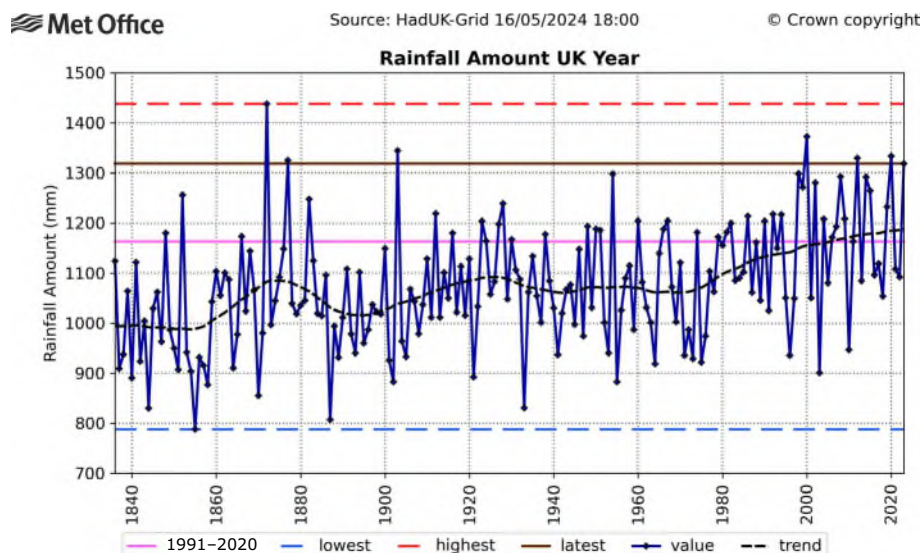
Both percentile series show large annual variability with some decadal variability, but with a rising trend for the 95th/99th percentiles from 7.7/1.6 days for the period 1961–1990 to 9.1/1.9 days for the most recent decade 2014–2023. As with the annual series for wet days (RR1), very wet days (RR10) and rainfall intensity, the 2023 values for the 95th and 99th percentiles were both notably high. The 95th percentile for wet days is highly correlated with the annual RR10 series (R^2 value 0.81).

Table 9 shows percentiles of UK mean daily rainfall for 1961–1990, 1991–2020, 2014–2023 and 2023. Percentiles for the most recent decade 2014–2023 are only slightly higher than for 1991–2020 (with a slight

reduction for 99th) but have increased for all percentiles compared with 1961–1990, except for the maximum (i.e., the UK’s wettest day of the year). (An example of an annual maximum is 3 October 2020, the UK’s wettest day on record and the only day exceeding 30 mm as a UK area average, see Kendon and McCarthy, 2021). The changes are highest for the 50th percentile, with the UK median daily rainfall for the most recent decade 2014–2023 5% higher than that for 1991–2020 and 16% higher than 1961–1990, broadly consistent with the UK’s climate becoming wetter overall (Table 8). However, the absence of a notable increase in the 99th percentile and maximum reflect the fact that the annual variability of the UK’s climate is still the predominant factor for extremes of UK mean daily rainfall.

Figures 50 and 51 show a count of the average number of days per year that have exceeded the 95th percentile and 99th percentile of 1961–1990 average rainfall for each county area of the UK (see Appendix A8) for 1961–1990, 1991–2020, 2014–2023 and actual days for 2023. This is an alternative approach which looks at how much the frequency of exceedance of a fixed percentile has changed, rather than how much the per

FIGURE 38 Annual rainfall (mm) for the UK, 1836–2023. The table shows actual values for the UK and countries.



	1961–1990	1991–2020	2014–2023	2023
UK	1084	1163	1191	1319
England	820	870	898	1066
Wales	1380	1465	1513	1716
Scotland	1444	1573	1592	1622
Northern Ireland	1090	1156	1195	1383

themselves have changed. Since the baseline period is 1961–1990 the maps are uniformly shaded by definition with a value of 18.3 days (95th percentile) and 3.7 days (99th). (Note that this differs from the previous analysis in Figure 49 since it considers the percentile for *all* days, rather than the percentile for *wet days only*. If the latter were used, the average number of days exceeding the 95th percentile for 1961–1990 would not be uniform but greater across the climatologically wetter areas of the UK). Table 10 provides summary statistics for the 95th, 98th, 99th, 99.5th and 99.8th percentiles averaged across all county areas.

The average number of days in 2023 was around 30 to 40% higher than the 1991–2020 average and around 50% or more higher than 1961–1990 across all percentiles, that is, consistent with 2023 being a wet and unsettled year overall. The most days exceeding the 95th and 99th percentiles occurred across parts of southern, eastern and northern England, Northern Ireland and eastern Scotland. The number of days exceeding the 99th percentile is broadly consistent with the rank of 2023 annual rainfall for individual counties (Figure 34a). The maps and table show that the number of days exceeding the 1961–1990 percentile has increased overall for 1991–2020 and 2014–2023. The most recent decade has typically had around 20% more days exceeding these percentiles than 1961–1990. However, there is no obviously coherent spatial pattern on the maps (e.g., a greater increase across climatologically wetter parts of the UK), suggesting that

although there has been a general increase in heavy rainfall events overall for the UK, at a county-area scale this is still dominated by annual and decadal variability. For higher percentiles, the sample size of the observations included in the analysis decreases which increases the overall variability—for example, the 99.8th percentile represents fewer than 1 day/year, on average (Table 10).

Figure 52 provides a count of the number of times each year any rain gauge in the observing network below 500 m elevation has recorded a daily rainfall total ≥ 50 mm. We refer to this type of metric as a count of station-days. This metric cannot distinguish between a small number of widespread events recorded at many stations, or more frequent but localized events, but is a useful gauge of the occurrence of extreme heavy rainfall overall. This series has been adjusted to take into account the changing size of the UK rain-gauge network, which reached over 5000 gauges in the 1970s and has reduced to between 2000 and 3000 gauges since the 2010s (see Figure A3).

The dense network of several thousand rain gauges across the UK means that widespread heavy rain events will tend to be well captured, with a typical distance between individual rain gauges of approximately 10–20 km. Even so, highly localized convective events may still be missed. The series adjustment is made by applying a scaling factor (based on the number of stations in the UK rain-gauge network for each year) to the station-day counts for each year, so that earlier years are scaled

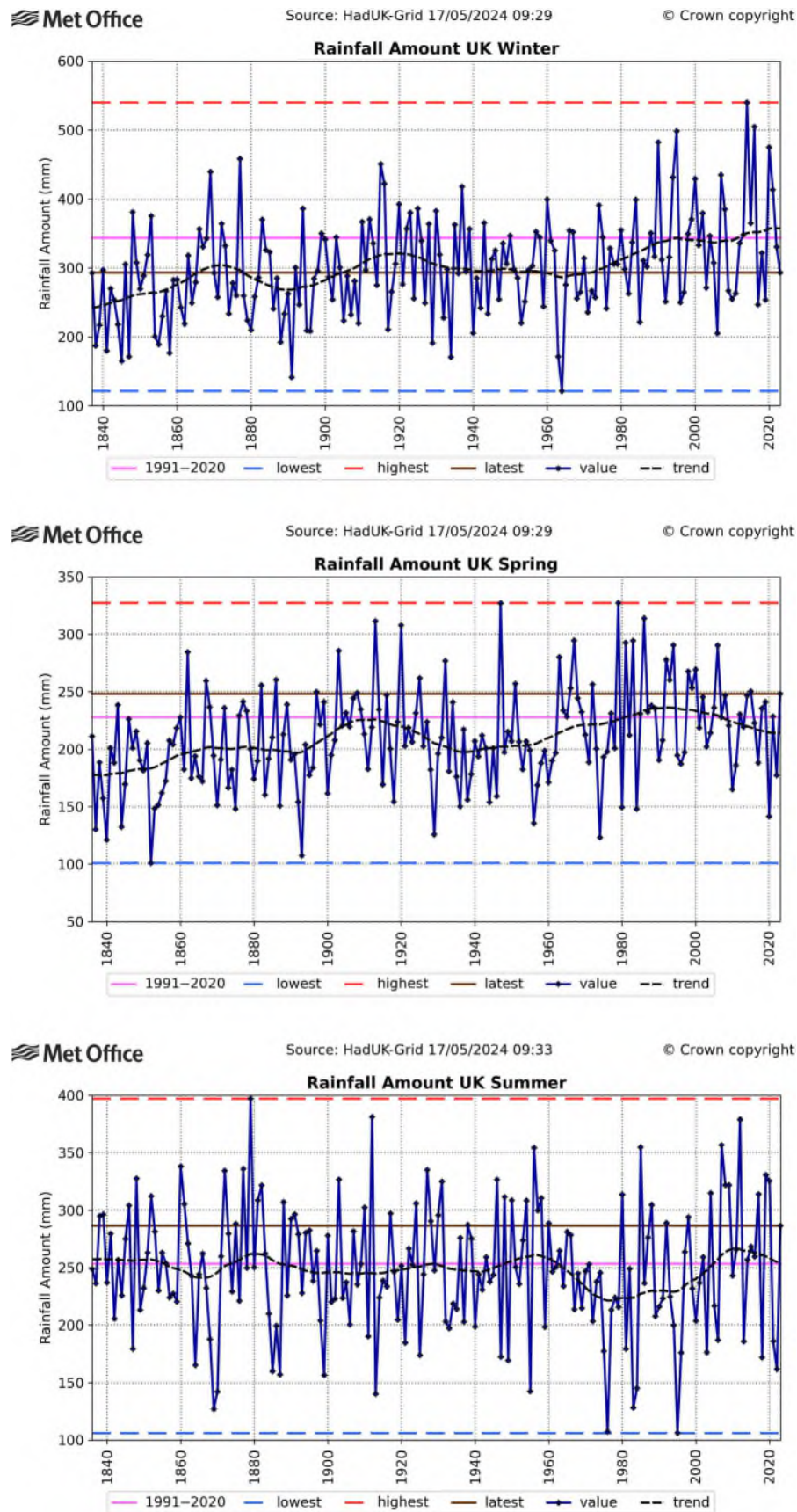


FIGURE 39 Seasonal rainfall (mm) for the UK for (a) winter, (b) spring, (c) summer (d) autumn - (overleaf) 1836–2023 (winter 1837–2023). Note the y-axis gridline spacing differs between the figures.

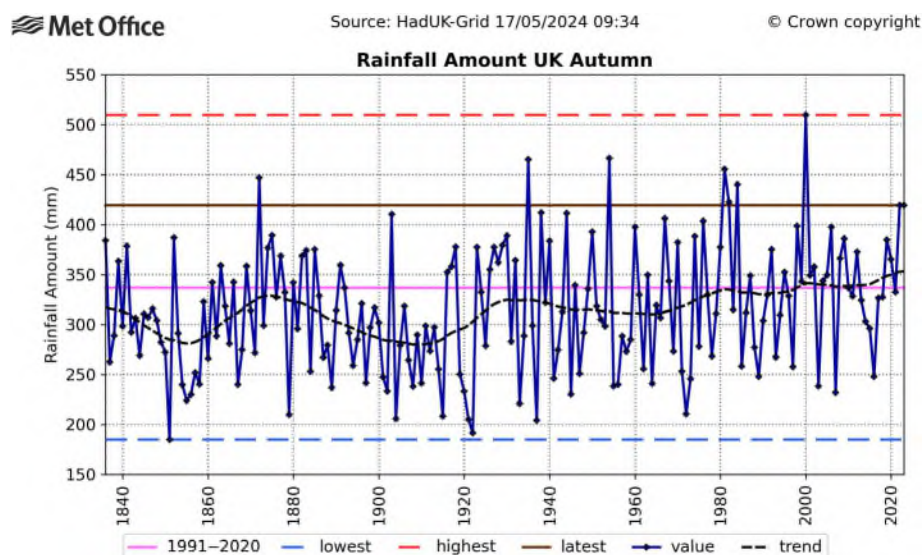


FIGURE 39 (Continued)

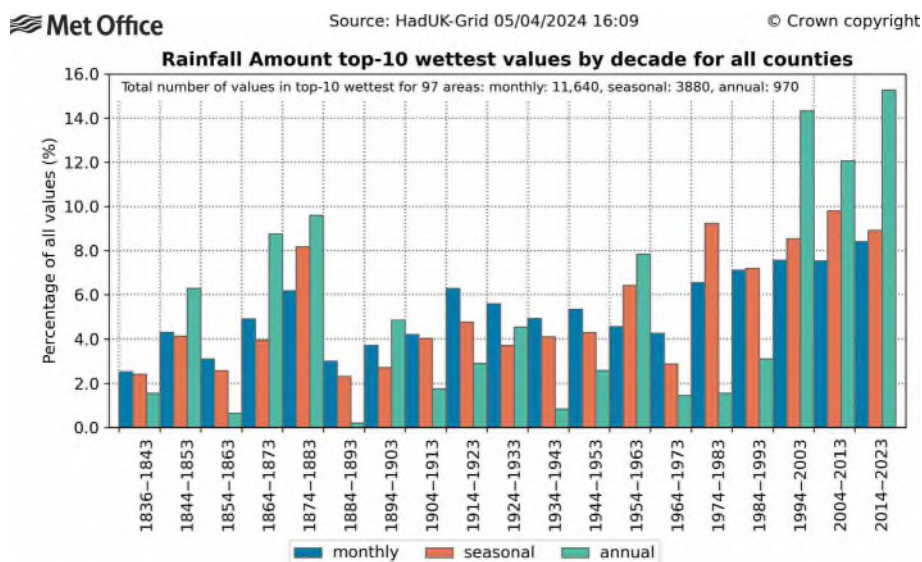
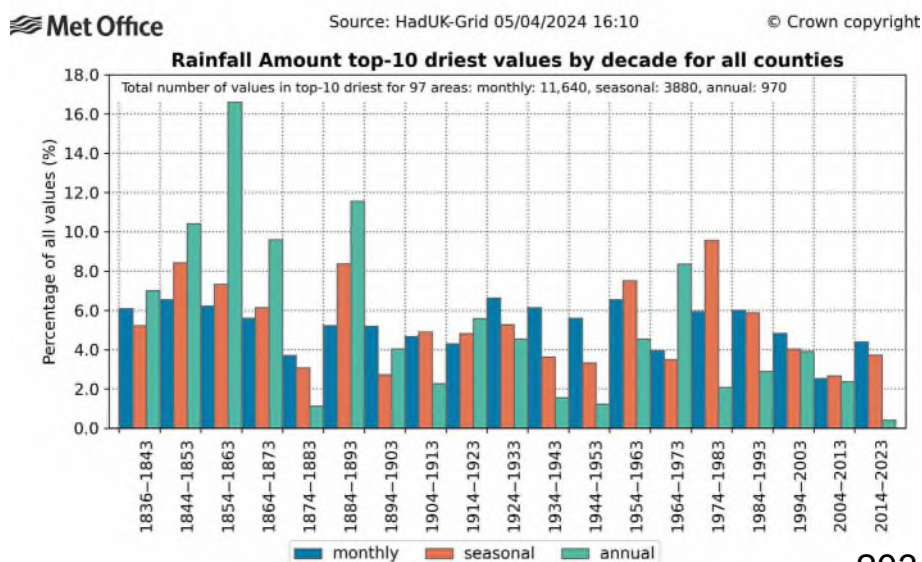


FIGURE 40 (a,b) Number of monthly, seasonal and annual top-ten rainfall values by decade for the near-19 decades of the 188-year HadUK-Grid monthly rainfall series 1836–2023 (the first ‘decade’ 1836–1843 comprises only 8 years). The figures count the number of values in each decade in the top-ten wettest (a) and top-ten driest (b) in the series across 97 counties of the UK. In total there are $97 \times 12 \times 10 = 11,640$ monthly values, $97 \times 4 \times 10 = 3880$ seasonal values and $97 \times 10 = 970$ annual values for each of top-ten wettest and top-ten driest spread across all the decades. Each decade also comprises 11,640/3880/970 monthly/seasonal/annual values in total from which these top-ten wettest/driest subsets of values are taken (except 1836–1843). Counts are converted to the percentage of all monthly, seasonal and annual values, with an average of 5.3% per decade.



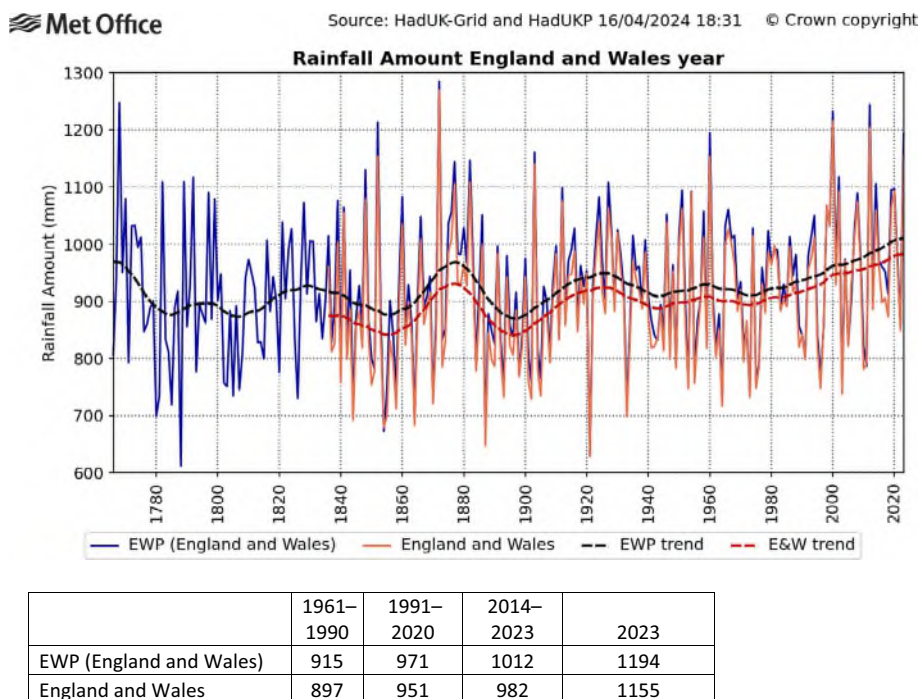


FIGURE 41 Annual rainfall for England and Wales (EWP) 1766–2023, and England and Wales from HadUK-Grid dataset, 1836–2023. The table shows actual values (mm).

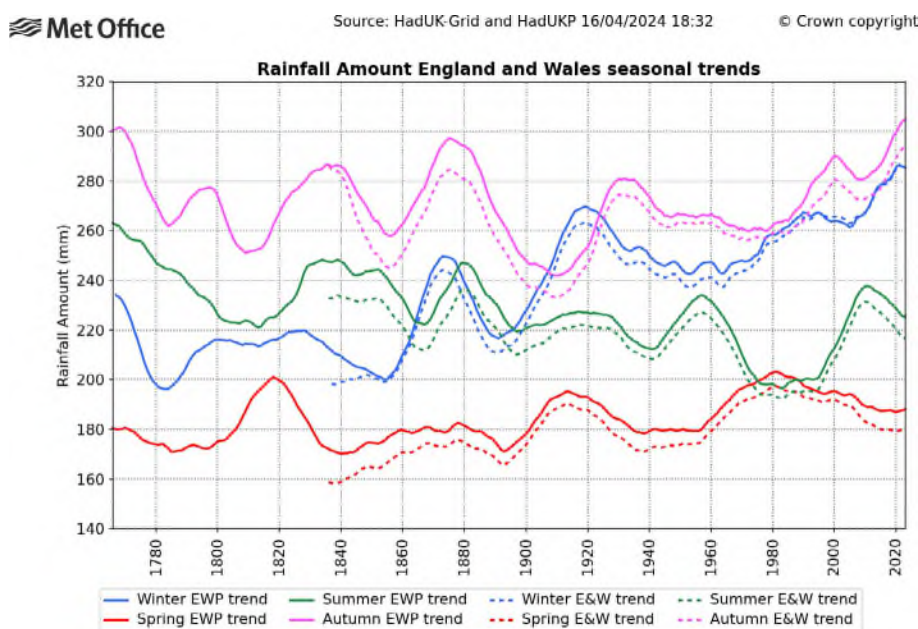


FIGURE 42 Seasonal EWP trends 1766–2023 (winter 1767–2023) showing the smoothed trends for each series using a weighted kernel filter described in Appendix B1. The equivalent England and Wales series (E&W) from the HadUK-Grid dataset are also shown dashed.

and later years scaled up, and the equivalent adjusted number of stations in the network remains constant throughout the series. However, note that this adjustment does not take into account the fact that the relative proportion of rain-gauges within different parts of the UK also changes with time. Therefore we cannot rule out the possibility that the present day network, while having fewer stations overall, may provide better sampling of regions that experience higher frequency of heavy rain days such as western Scotland.

By this metric, 2023 had a count of 1618 station-days, slightly above the long term trend and 117% of the 1991–

2020 average. The majority of this total is accounted for by days with widespread frontal rainfall from Atlantic weather systems, in January, July, September, October and December. The most recent decade 2014–2023 has a count of station-days 9% higher than 1991–2020 and 46% higher than 1961–1990. Note however the important caveat above which may particularly affect the 1961–1990 period. There was a particular tendency in the raingauge network for spatial clustering of stations through these years—for example, in the London and Manchester areas—which may significantly affect the 1961–1990 count.

3.6 | Snow

Table 11 counts the number of stations across England, Wales, Scotland and Northern Ireland recording snow depths ≥ 5 cm by day through 2023. This provides an indication of the most notable spells of snow through the course of the year.

Scotland bore the brunt of impacts from snow from 17 to 19 January due to an influx of colder air from the north. Frequent snow showers led to disrupted rail services, road and school closures. Snow depths reached 34 cm on 18th and 19th at Loch Glascarnoch (Ross and Cromarty)—the UK's greatest depth of the year, while Northern Ireland was also affected. Snow showers off the

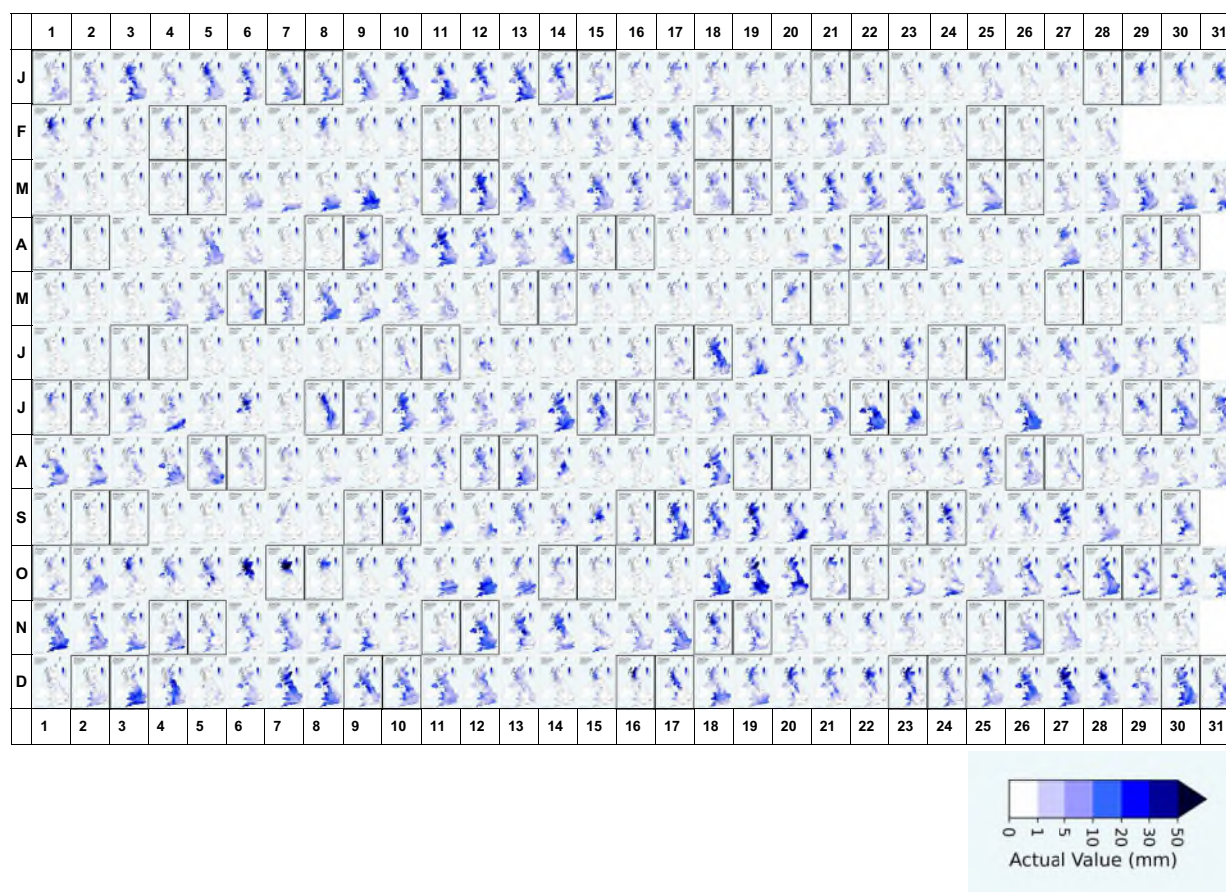


FIGURE 43 2023 daily actual rainfall by month (top to bottom) and day (left to right). Weekends are displayed with a black border. The darkest shades indicate areas over 50 mm.

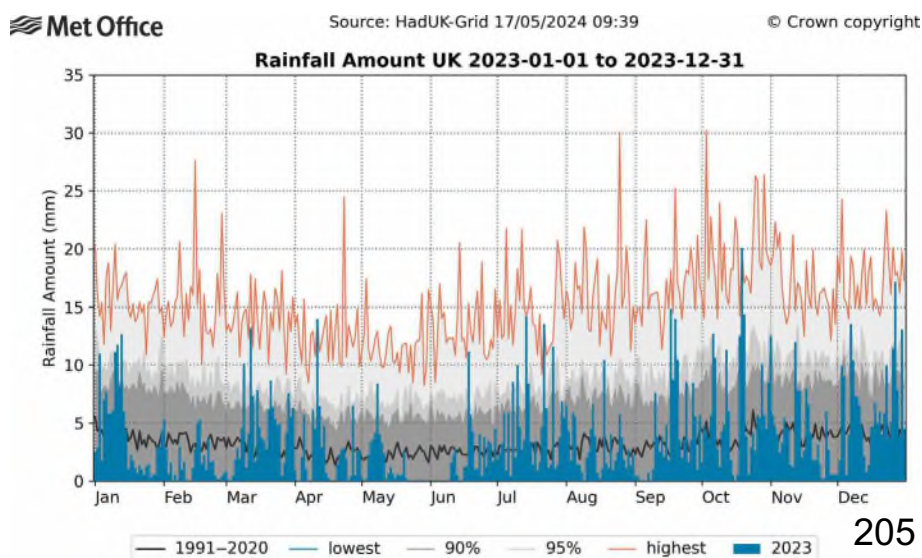


FIGURE 44 UK mean daily rainfall for each calendar day of the year 2023. The black line shows the 1991–2020 average for each calendar day; the red and blue lines the highest and lowest values and the grey shading the percentile values for each calendar day of the year based on the period 1891–2023 inclusive.

Met Office

Source: HadUK-Grid 17/05/2024 09:39

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Rainfall Amount - Year 2023 - UK

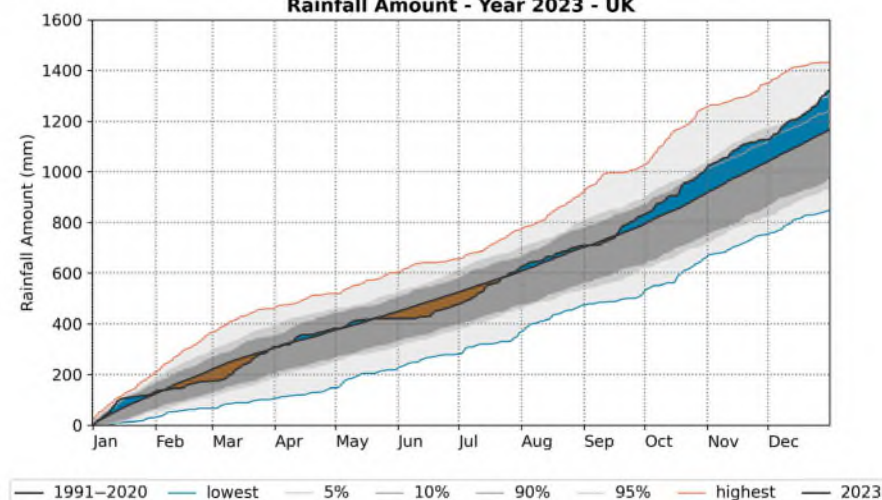


FIGURE 45 UK mean daily rainfall accumulation for the year so far, for each calendar day of the year 2023. The black line shows the 1991–2020 average for each calendar day; the red and blue lines the highest and lowest values and the grey shading the percentile values for each calendar day of the year based on the period 1891–2023 inclusive. The light brown/blue shaded areas show the accumulated rainfall deficit/surplus relative to the 1991–2020 average for the year so far from the start of January (assuming no rainfall deficit or surplus at the start of the year).

Irish Sea also affected parts of Wales, North West England and Cornwall; Manchester Airport was closed for 2 h and in Cornwall roads were closed including the A30 near Newquay and A39 near Truro.

The most significant widespread snow occurred in early March. A northerly flow introduced an Arctic air mass, bringing widespread snow showers as far as southern England and associated impacts (8 cm at Huntsham, Devon and Odiham, Hampshire on 8th). This event culminated in heavy and disruptive snow across the south Pennines and Peak District caused by a low pressure system pushing milder Atlantic air back north into this cold air mass. Snow depths on 10th reached 32 cm at Buxton, 31 cm at Middleton (Derbyshire) and 24 cm at Leek, Thorncliffe (Staffordshire)—these stations being at around 300 masl, while unofficial reports suggested snowfall accumulations of the order of 40 cm in some higher-lying Sheffield suburbs. The M62 was blocked for many hours due to snow clearance being hampered by drifting, and in Derbyshire a major incident was declared with mountain rescue teams assisting trapped motorists between Buxton and Ashbourne. Snow accumulations on power lines resulted in widespread power outages. Road closures and power outages also affected Wales and Northern Ireland. This was the UK's most significant March snowfall event since 18 to 19 March 2018 (around a fortnight after the much publicized 'Beast from the East' snow event of that year).

Heavy snow affected Cumbria and parts of Derbyshire in early December 2023 as snow showers moved east off the Irish Sea overnight 2nd to 3rd. A major incident was declared in Cumbria with a large number of roads closed including the M6 and rest centres opened for stranded travellers. Thousands of residents experienced loss of power, with unofficial depths locally of 10 to 20 cm or

more across the southern Lake District (e.g., Ambleside). Holley and Silkstone (2024) describes the meteorology of this event. Further snow affected northern Scotland on 27 December from storm Gerrit, with a number of motorists trapped on the A9.

Significant and widespread lying snow might have been considered fairly typical for a UK winter of several decades ago. However, this type of event has become increasingly unusual in a warming climate over the last two or three decades. The most notable spells of significant and widespread lying snow across lowland parts of the UK in recent years have been February to March 2018, January and March 2013 and January and December 2010, and overall the snow events of 2023 were very much less severe than these. 2010 was the snowiest year by far for the UK in the last two decades; comparable to several snowy years in the 1970s and 1980s.

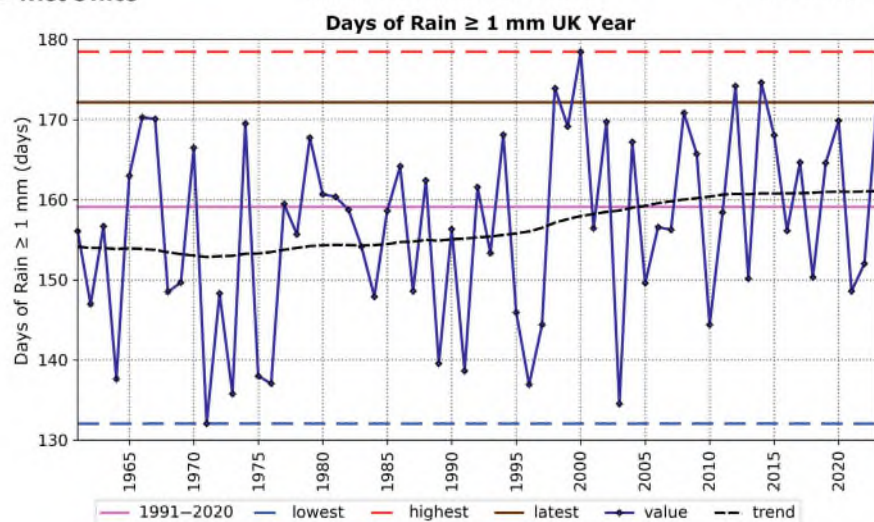
Figure 53 shows the count of station-days where snow depth sensors recorded greater than or equal to 10 cm or 20 cm of lying snow. These series have not been adjusted for network size, consequently they are indicative but not homogeneous (with the 2023 network size less than half that of the 1960s to 1990s, see Appendix A13). Based on the metrics from Figure 53, while 2023 was a snowier year than five other years of the most recent decade (2014, 2016, 2019, 2020 and 2022), it was less snowy than the others—particularly 2013 and 2018. Despite our warming climate, impactful snow events are still to be expected but their number and severity have declined since the 1960s. Since the start of the 20th Century, the UK's most severe spells of wintry weather (and the coldest UK months) occurred in January 1963 and February 1947. The 1960s had a greater frequency of snowfalls and blizzards than any decade since the 1860s and

FIGURE 46 Annual days of rain (a) ≥ 1 mm and (b) ≥ 10 mm for the UK, 1961–2023. The tables show actual values for the UK and countries (days), with anomaly values for 2014–2023 and 2023 (days).

Met Office

Source: HadUK-Grid 17/05/2024 09:47

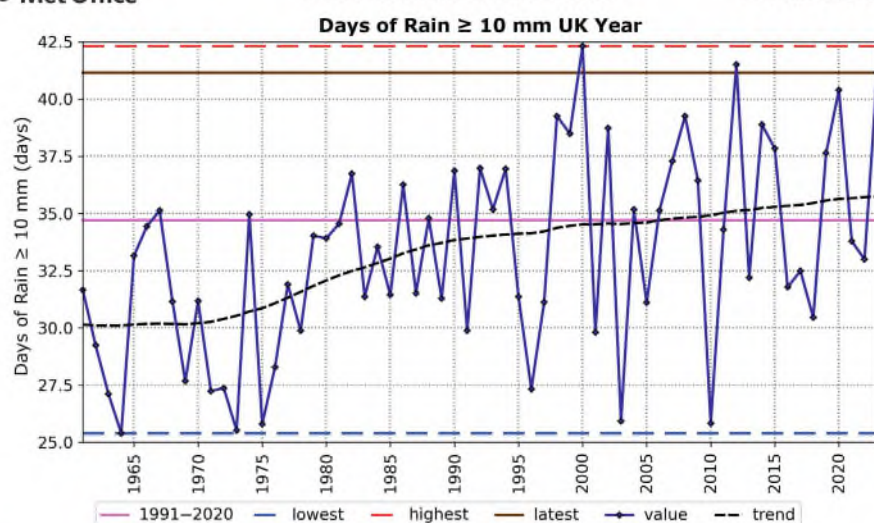
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Met Office

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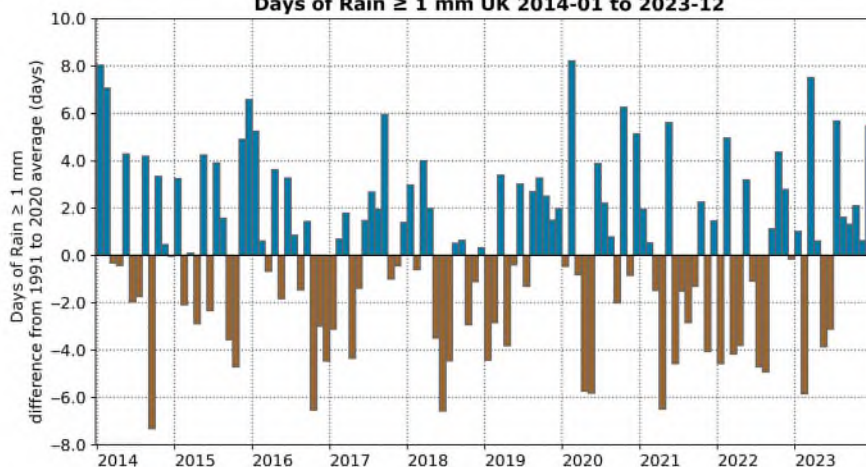
Raindays ≥ 1 mm	1961–1990	1991–2020	2014–2023	2023	2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020	2023 anom wrt 1961–1990	2023 anom wrt 1991–2020
UK	154	159	162	172	8	3	18	13
England	131	135	138	153	7	3	21	17
Wales	167	173	179	196	12	6	30	23
Scotland	184	191	194	194	10	3	9	2
Northern Ireland	177	182	184	200	7	2	23	18

Raindays ≥ 10 mm	1961–1990	1991–2020	2014–2023	2023	2014–2023 anom wrt 1961–1990	2014–2023 anom wrt 1991–2020	2023 anom wrt 1961–1990	2023 anom wrt 1991–2020
UK	31	35	36	41	4	1	10	6
England	21	24	25	32	3	1	11	8
Wales	44	48	50	59	5	2	15	11
Scotland	45	50	51	51	6	1	6	1
Northern Ireland	29	32	34	41	5	2	12	9

Met Office

Source: HadUK-Grid 17/05/2024 09:49

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Days of Rain ≥ 1 mm UK 2014-01 to 2023-12

Met Office

Source: HadUK-Grid 17/05/2024 09:49

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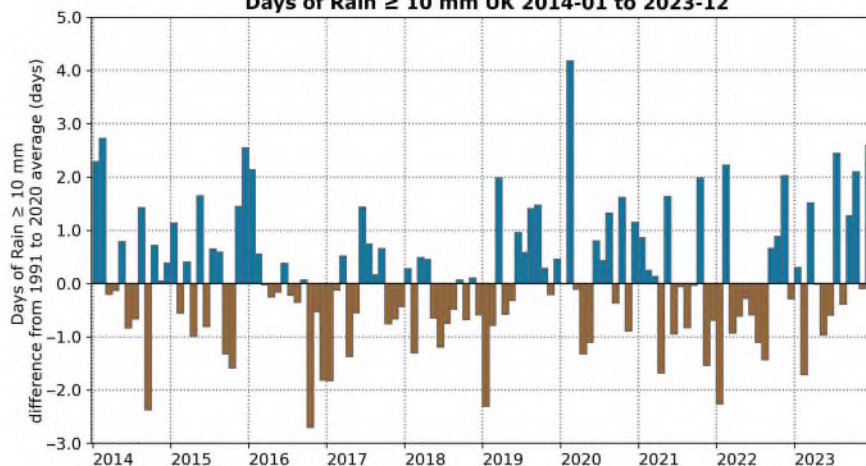
Days of Rain ≥ 10 mm UK 2014-01 to 2023-12

FIGURE 47 Days of rain (a) ≥ 1 mm (RR1) and (b) ≥ 10 mm (RR10) as monthly anomalies relative to 1991–2020 for the UK for 2014–2023.

(Wild et al., 2000) and there were also some very substantial snow events with very low temperatures through the 1970s and 1980s (see, e.g., Sholl, 2020, also Figure 66).

4 | SUNSHINE

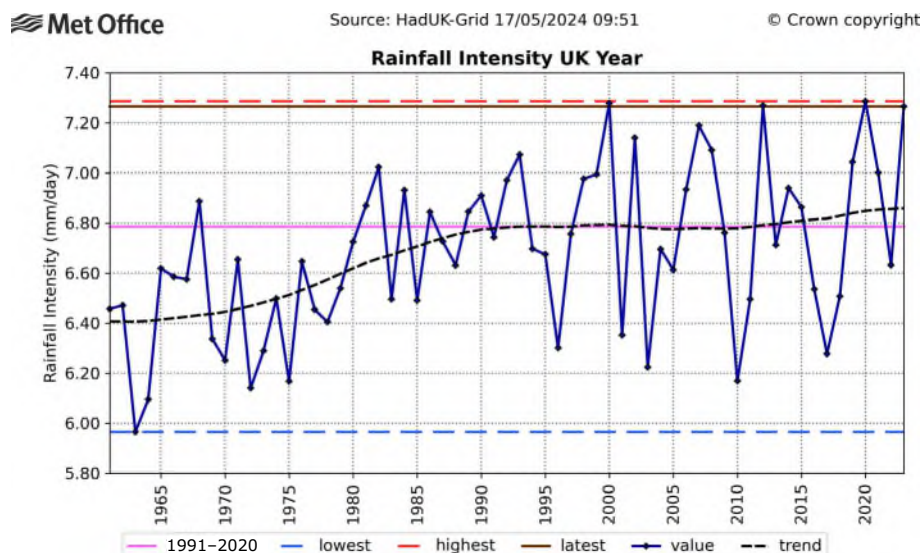
The UK sunshine total for 2023 was 1435 h, 102% of the 1991–2020 average. The anomaly pattern was variable but in general slightly sunnier further north—particularly western Scotland. Overall, Scotland was sunniest relative to average (107%) and here it was the equal-ninth sunniest year in the series from 1910 (Figure 54). In terms of annual totals, Preston Cove House, Dorset was the sunniest location with 1959 h, 105% of average. Lerwick, Shetland was the duller with 1133 h, 98%.

Figures 55–57 and Table 12 show seasonal and monthly sunshine anomalies for the UK for 2023 and the most recent decade 2014–2023. With high pressure, fine, settled weather and prolonged periods of sunshine, June

was by a wide margin the sunniest month of the year with 245 h, 143% of the 1991–2020 average. It was the UK's sunniest June since 1975 and fifth sunniest in the series from 1910. It was also the UK's sunniest calendar month since May 2020 (the UK's sunniest month in the series with 267 h). Several stations recorded over 300 h of sunshine in June including 323.5 h at Preston Cove House, Dorset, although this falls well short of June 1925 when several stations in Devon and Cornwall recorded over 370 h. January was also notably sunny with 131%, of average, the fourth-sunniest January for the UK—although January 2022 was slightly sunnier. May was a sunny month across Wales and the west of England.

In addition to being mild and wet, December was extremely dull with only 28 h of sunshine, 64% of average. Sunshine totals were <1 h/day on average; this was the UK's equal-seventh duller December in the series (although December 2021 was marginally duller). March and July were both notably dull. Sunshine totals in 2023

FIGURE 48 Annual rainfall intensity for the UK, 1961–2023. The table shows values for the UK and countries (mm/day).



	1961–1990	1991–2020	2014–2023	2023
UK	6.6	6.8	6.8	7.3
England	5.9	6.0	6.1	6.6
Wales	8.0	8.1	8.1	8.5
Scotland	7.4	7.8	7.8	8.1
Northern Ireland	5.9	6.1	6.3	6.7

and August averaged <5 h/day compared with more than eight in June, while, despite the significantly shorter day lengths, the September sunshine total almost matched that of July. Overall, seasonal sunshine totals were unremarkable although winter 2023 (December 2022 to February 2023) was the tenth sunniest winter in the UK series.

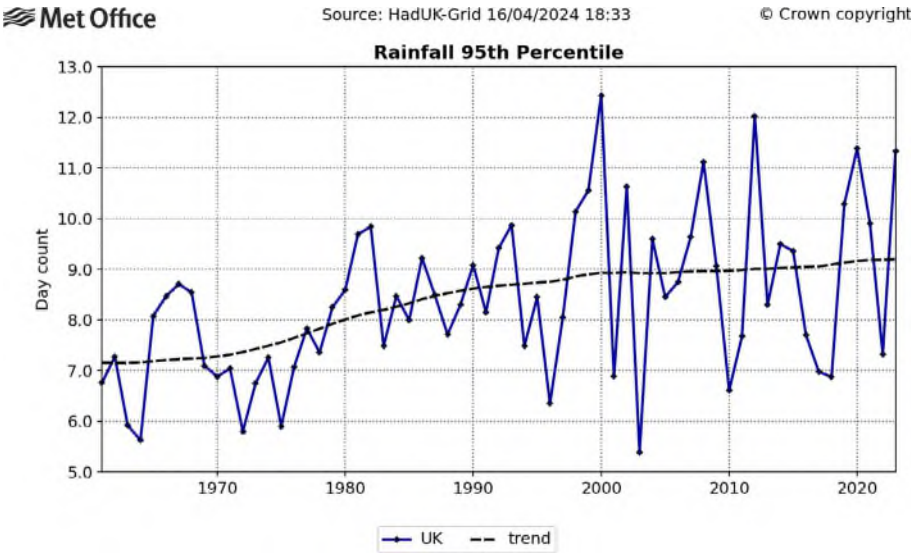
While it is interesting to compare monthly sunshine anomalies for the most recent decade 2014–2023 (Figure 57) against mean sea level pressure anomalies (Figure 2), temperature anomalies (Figure 10) and rainfall anomalies (Figure 37), clearly, these comparisons are complex because of the characteristics of each individual month and the seasonal aspects of the UK's climate.

Figures 58 and 59 show annual and seasonal sunshine durations for the UK from 1910 to 2023 inclusive. The smoothed trend shows an increase in sunshine from the 1980s onward. The most recent decade 2014–2023 has been 4% sunnier than 1991–2020 and 9% sunnier than 1961–1990 with slightly larger increases across England compared with the other countries. Three years in the most recent decade 2014–2023 have been in the top-ten sunniest in the UK series; 2018, 2020 and 2022, and this is the sunniest 10-year period in the UK series.

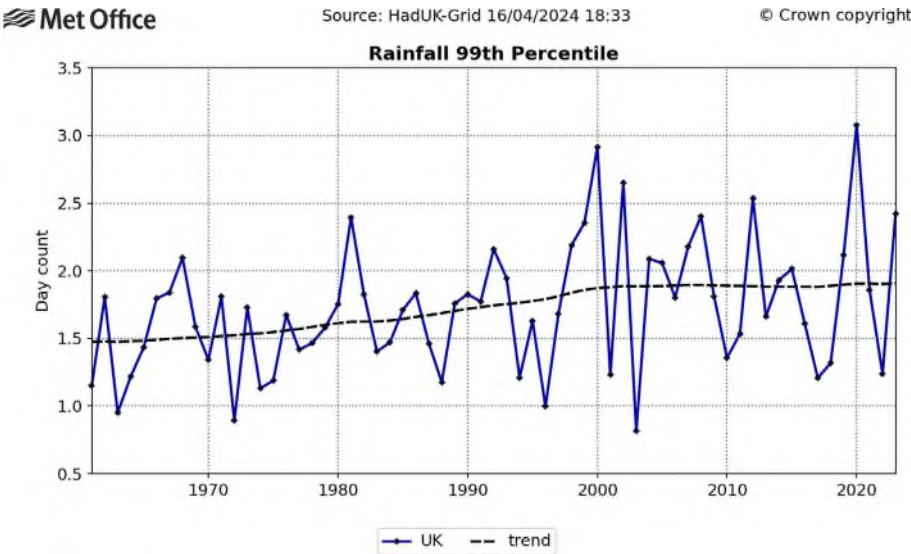
The trend in annual sunshine is most apparent in the winter and spring series: UK sunshine totals have

increased most in winter and spring compared with 1961–1990 (15% and 16%, respectively), and for England by 24% and 19%. Four winters in the most recent decade 2014–2023 have been in the top-ten sunniest in the UK series: 2015, 2018, 2019 and 2023. UK sunshine trends will be influenced by a combination of natural variability and circulation changes, as well as other regional and global drivers such as those contributing to global dimming and brightening trends including direct and indirect response to aerosols (Wild, 2009). Christidis et al. (2016) found evidence of human influence on winter sunshine extremes in the UK with the increase in winter sunshine most likely to be explained by reduced aerosol emissions—although this article acknowledges that a similar upward trend is not also apparent in summer, which may be a result of competing mechanisms. The decadal statistics will reflect annual and decadal variability in the UK's climate in addition to the overall increasing sunshine trend.

The sunshine network is relatively sparse, with the 2023 network comprising around 112 stations (Figure A5). Some parts of the UK such as Highland Scotland and central Wales have relatively few observations. Sunshine stations may be affected by exposure issues, particularly in the winter months when the sun



	1961–1990	1991–2020	2014–2023	2023
UK	7.7	8.9	9.1	11.3
England	6.6	7.4	7.7	10.1
Wales	8.3	8.9	8.7	10.8
Scotland	9.2	11.2	11.0	12.6
Northern Ireland	8.9	10.4	11.4	16.5



	1961–1990	1991–2020	2014–2023	2023
UK	1.6	1.9	1.9	2.4
England	1.3	1.5	1.5	2.0
Wales	1.7	1.8	1.8	1.9
Scotland	1.9	2.5	2.4	3.0
Northern Ireland	1.8	2.2	2.3	3.8

FIGURE 49 UK mean number of days each year where rainfall totals have exceeded (a) the 95th percentile and (b) the 99th percentile. The tables show values for the UK and countries (days).

low elevation and topographic shading may be important. The sunshine statistics throughout are presented to the nearest whole hour, but the uncertainties of the areal statistics relating to changes in the observing network over time can approach 2% (equivalent to ~5 min on average). More details can be found in Appendix 210

TABLE 9 Percentiles (mm) of UK mean daily rainfall for 1961–1990, 1991–2020, 2014–2023 and 2023.

	1961–1990	1991–2020	2014–2023	2023	2014–2023 % of 1961–1990	2014–2023 % of 1991–2020
50%	2.0	2.2	2.3	2.6	116	105
75%	4.4	4.7	4.8	5.5	110	102
90%	7.2	7.6	7.8	8.5	109	103
95%	9.1	9.7	9.9	11.4	109	102
99%	13.3	14.0	13.7	14.2	103	97
Max	19.3	18.6	18.9	20.1	98	101

Note: Also shown are percentage of average values for 2014–2023.

5 | WIND

5.1 | Extreme wind speed

The windiest days of 2023 are listed in Table 13, and named storms listed in Table 14. (In this report, storms are grouped by calendar year, not by winter season.) Storm-surge events of 2023 are described in Section 6.2. As with previous years, storms in 2023 were named as part of an initiative between the Met Office, Met Éireann and KNMI (the Irish and Dutch national weather services), forming the western European storm naming group. Other European national meteorological agencies also apply names to storms. Portugal, Spain, Luxembourg, France and Belgium form the south-western group; Norway, Sweden and Denmark the north-eastern group.

Storm naming improves the communication of approaching severe weather through the media and government agencies by using a single authoritative system. Storms are named based on a combination of both the impact the weather may have, and the likelihood of those impacts occurring, taking into account wind, rain or snow. The number of named storms from year-to-year should not be used as a climate index in its own right because the criteria for naming storms have changed since the scheme was first introduced in autumn 2015.

Unusually, there were no storms named by the western European storm naming group in year 2023 until Antoni on 5 August 2023. Altogether this group named nine storms in 2023: Antoni and Betty at the end of the 2022–2023 storm season, and Agnes to Gerrit in the 2023–2024 season. Storms named by other groups included Otto in February, Noa in April and Pia in December (Table 14), plus several others associated with storm surges listed in Table A5.

Otto was a fairly typical Atlantic winter storm for the UK, with the strongest winds across north-east Scotland, for example, 70 Kt (81 mph) at Lossiemouth, Moray and Tain

Range, Ross and Cromarty. The storm deepened as it moved across the North Sea with the greatest impacts across Norway, Sweden and Denmark. Noa was the most significant April storm to affect England and Wales since 18 April 2013, gusts exceeded 50 Kt (58 mph) around exposed coastlines of the south and west, including the UK's highest gust of the year at a lowland station—83 Kt (96 mph) at Needles Old Battery, Isle of Wight (Table 15); huge waves affected the Cornwall coast. Nevertheless, significantly more powerful April storms have affected the UK in the past, including 1 April 1994, 11 April 1989 and 2 April 1973.

This was the second year in which two named storms have occurred in August, the other being 2020 (Ellen and Francis). Neither Antoni nor Betty were particularly severe for the UK but Betty caused widespread power cuts across the Republic of Ireland.

The period from late September to the end of the year was very unsettled, wet and stormy and included a run of significant named storms from Agnes (late September) to Gerrit (late December)—with Henk arriving in early 2024. This was the most active start to the named storm season since it was started in 2015. Agnes was an intense area of low pressure enhanced by energy from Tropical Storm Ophelia which affected the north-east coast of the US and caused serious flooding in New York. Fortunately, it had weakened by the time it reached the UK, although a gust of 73 Kt (84 mph) was recorded at Capel Curig, Conwy (see cover image). Babet was the most significant named storm for the UK in terms of weather impacts, largely as a result of heavy and persistent rain (see Section 9.4). Winds gusted at well over 50 Kt (58 mph) across northeast England and much of Scotland, for example, 67 Kt (77 mph) at Inverbervie, Kincardineshire; strong winds combined with driving rain resulted in atrocious weather conditions here for a sustained period. Leeds Bradford airport closed after an aircraft skidded off the runway during the storm, and 45 workers were airlifted off a North Sea drilling platform after it lost anchors during the storm. Winds gusted at over 100 Kt (115 mph) across Scotland's mountain summits.

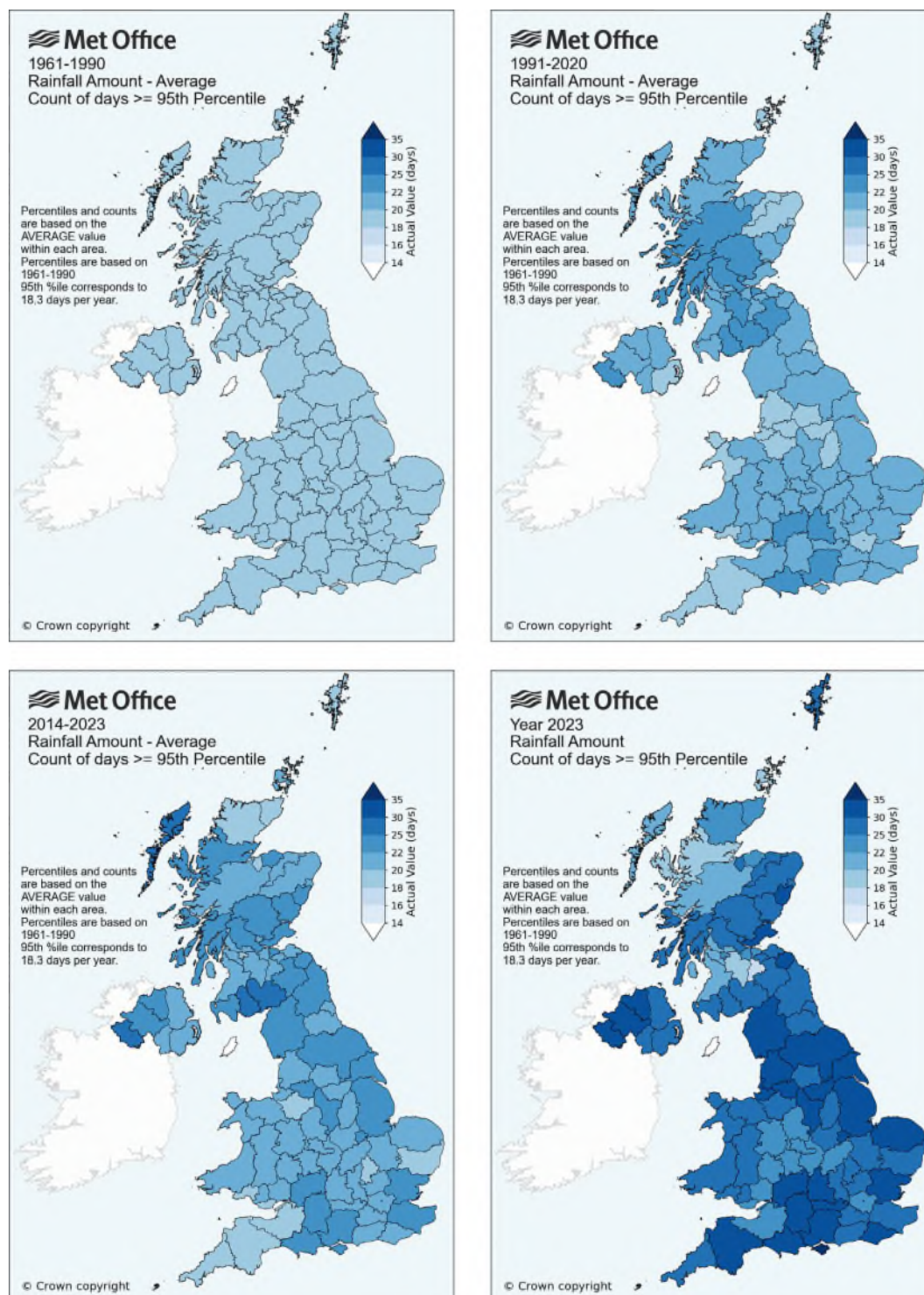


FIGURE 50 Average number of days per year for 1961–1990, 1991–2020 and 2014–2023 and actual number of days for 2023 in which the daily rainfall total for each county of the UK has exceeded the 95th percentile daily rainfall for that county based on the period 1961–1990. The 95th percentile corresponds to 1 in 20 days or 18.3 days per year, by definition—as shown on the map for 1961–1990. The legend scale extends to 35 days. Daily totals are based on the average value across each county.

Wind speeds from storm Ciarán were particularly severe across the Channel Islands and northern France (see Section 9.5 for details of this storm). The next three

storms were all named by Met Éireann. The UK's strongest winds from Debi were around Irish Sea coasts with 60 Kt (69 mph) gusts in exposed locations. The

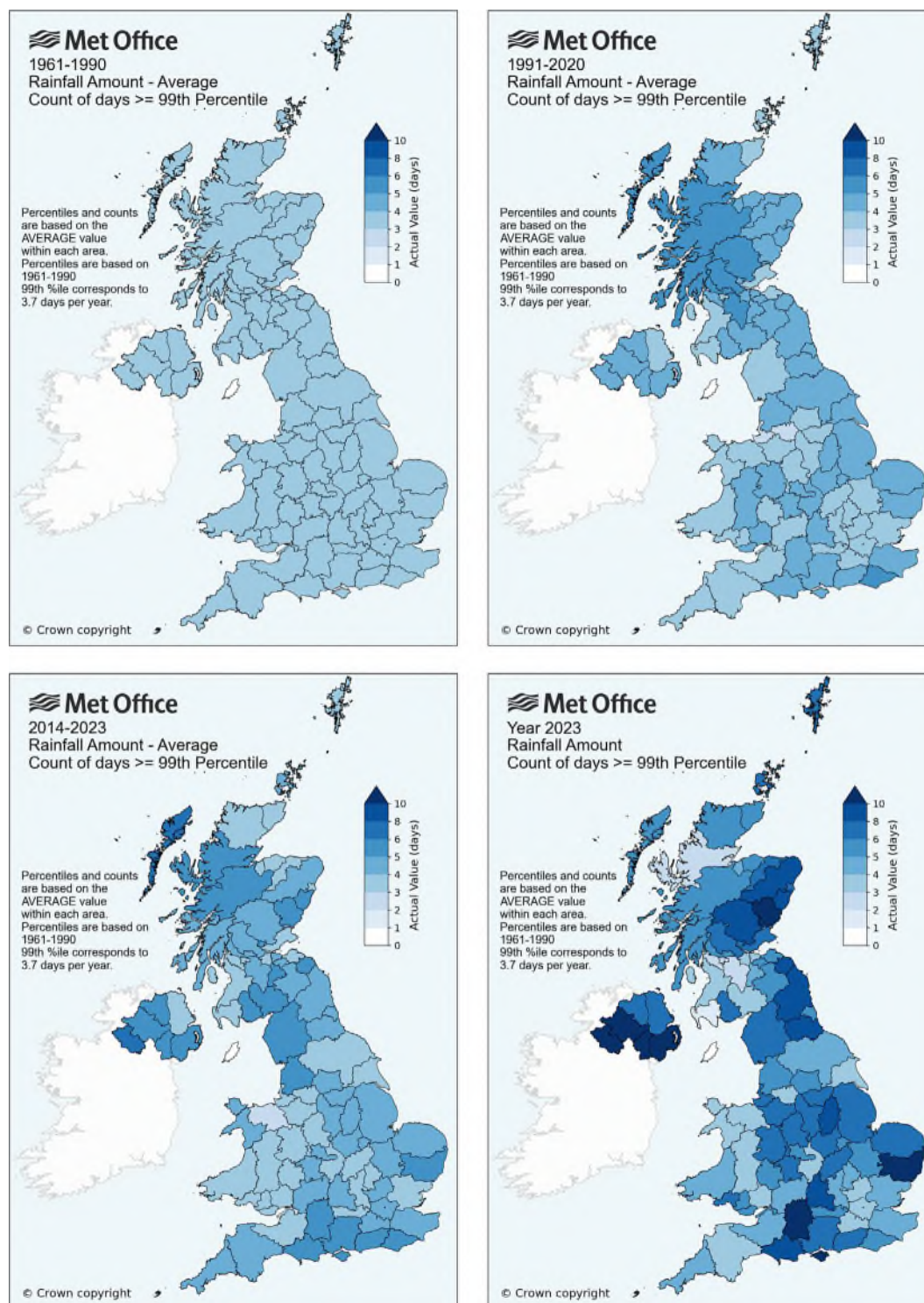


FIGURE 51 As Figure 50 for the 99th percentile. This corresponds to 1 in 100 days or 3.7 days per year. The legend scale extends to 10 days.

impacts from Debi, Elin and Fergus were all across the Republic of Ireland; Met Éireann issuing red warnings for both Debi and Fergus.

The storm with by far the most stations exceeding 50 Kt (58 mph), Pia, was not named by the western storm

naming group, but named by the Danish Meteorological Institute (DMI) (Table 14). While gusts over 50 Kt were very widespread, gusts over 60 Kt (69 mph) were largely confined to northern Scotland, although Brizlee Wood, Northumberland recorded 70 Kt (81 mph). This

TABLE 10 Average count of the number of days per year in which the daily rainfall total for each county of the UK has exceeded its Xth percentile based on the period 1961–1990, as an average across all 97 counties—covering the periods 1961–1990, 1991–2020, 2014–2023 and actual counts for year 2023.

Percentile	1961–1990	1991–2020	2014–2023	2023	2014–2023 % of 1961–1990	2014–2023 % of 1991–2020
95	18.3	20.8	21.4	26.9	117	103
98	7.3	8.4	8.6	11.4	118	103
99	3.7	4.2	4.3	5.6	118	103
99.5	1.8	2.1	2.1	3.0	117	102
99.8	0.7	0.9	0.9	1.2	122	97

Note: Also shown are percentage of average values for 2014–2023.

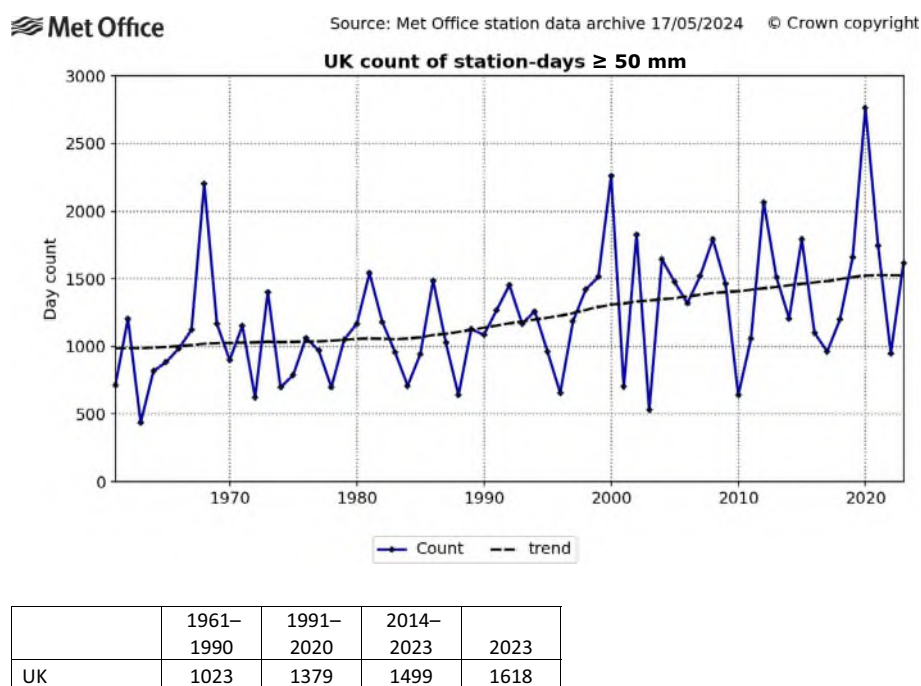


FIGURE 52 Annual count of the number of UK station-days which have recorded daily rainfall totals greater than or equal to 50 mm from 1961 to 2023, adjusted for station network size and excluding stations above 500 metres above sea level. The table provides average annual values (station-days). Note that the number of station-days for 1961–1990 and 1991–2020 have changed slightly from last year’s report (1031, 1387). This is both because the adjustment for station network size has altered as a result of inclusion of year 2023, and also historical observations held within the climatological database may change over time as more digitized data are added or as a result of quality control; data for the full series have been re-extracted from this live database.

continued to intensify as it tracked across southern Scandinavia into the Baltic. Forty-six shipping containers were reported washed off a vessel of north-west Denmark.

The final storm of the year, Gerrit, arrived just after Christmas. Strong winds from this storm persisted through the 27th, 28th and 29th with the area of low pressure over northern Scotland slow to clear eastwards. The strongest winds of over 60 Kt (69 mph) were around the west coast of Wales, north-east coast of Scotland and the Northern Isles. The highest gusts included 77 Kt

(89 mph) at Fair Isle, Shetland, 76 Kt (87 mph) at Mona, Isle of Anglesey, 75 Kt (86 mph) at Inverbervie, Kincardineshire, 74 Kt (85 mph) at Capel Curig, Conwy and 73 Kt (84 mph) at Lerwick, Shetland. Based on the number of stations recording 60 and 70 Kt gusts, this was the most powerful wind storm of the year to affect the UK overall. As usual, some of the main impacts related to travel disruption, for example, rail services being affected by speed restrictions and trees on the line. Thousands of properties in north-east Scotland and Shetland lost power, and in Stalybridge, Greater Manchester, a **214**

incident was declared after around a hundred homes were damaged by a mini tornado.

As a measure of storminess Figure 60 counts the number of days each year on which at least 20 stations recorded gusts exceeding 40/50/60 Kt (46/58/69 mph). Most Atlantic storms are large-scale systems having widespread effects which this metric is designed to capture. Localized convective gusts will not contribute, nor will storms where the strongest winds are confined to a relatively small region of the UK.

The most recent two decades have seen fewer occurrences of max gust speeds above these thresholds than during the previous decades, particularly comparing the period before and after 2000. The number of station-days

recording gusts exceeding 40/50/60 Kt in 2023 was broadly comparable to the period after 2000. However, there are considerable year-to-year and decadal variations in these series and they are relatively short.

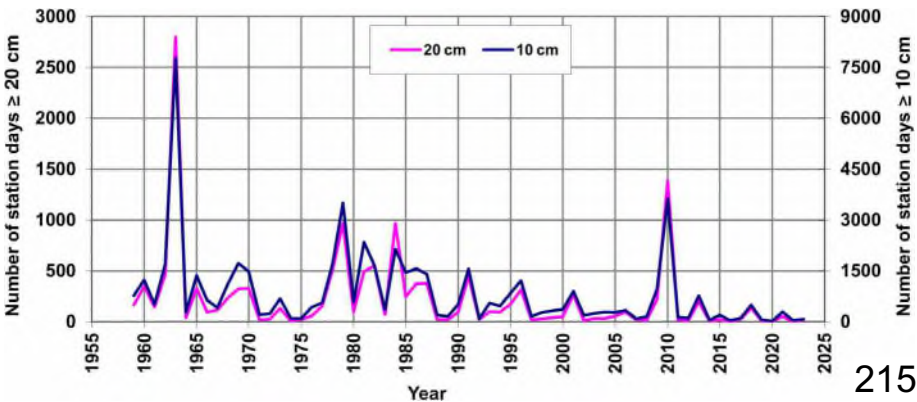
Note that the period of higher 40 Kt counts from the mid-1980s through the 1990s as shown in Figure 60 coincides with a similar period of positive phase of the winter NAO as shown in Figure 3. Since 2010, the winter NAO has mostly been positive, yet this is not reflected in the gust count. This earlier period also included some of the most severe storms experienced in the UK in the observational records including the ‘Burns’ Day Storm’ of 25 January 1990, the ‘Boxing Day Storm’ of 26 December 1998 and the ‘Great Storm’ of 16th

TABLE 11 The snowiest days of year 2023.

Date	England (99)	Wales (20)	Scotland (54)	Northern Ireland (15)	Total (188)
01/01/2023			5		5
17/01/2023			13	1	14
18/01/2023		3	7	2	12
19/01/2023	2	3	7	4	16
20/01/2023		3	4	3	10
07/03/2023			9		9
08/03/2023	4	1	13		18
09/03/2023	6	6	11		23
10/03/2023	20	9	12	6	47
11/03/2023	8	6	7	3	24
12/03/2023	4	4	7		15
14/03/2023			5		5
02/12/2023	2		3		5
03/12/2023	7		6		13
04/12/2023	4		3		7

Note: The table lists dates where five or more stations across the UK recorded a snow depth at 09UTC ≥ 5 cm on that day. The table also gives a count of stations by country. The indicative number of snow observing sites in 2023 for each country (based on data availability) is also given in brackets. Colours refer to counts >10, 20, 30 stations.

FIGURE 53 Count of number of station-days per year in the UK with recorded snow depths ≥ 20 cm (left hand axis) and 10 cm (right hand axis), excluding stations above 500 masl. This series has not been adjusted for network size. The 2023 values are 80 (10 cm) and 19 (20 cm).



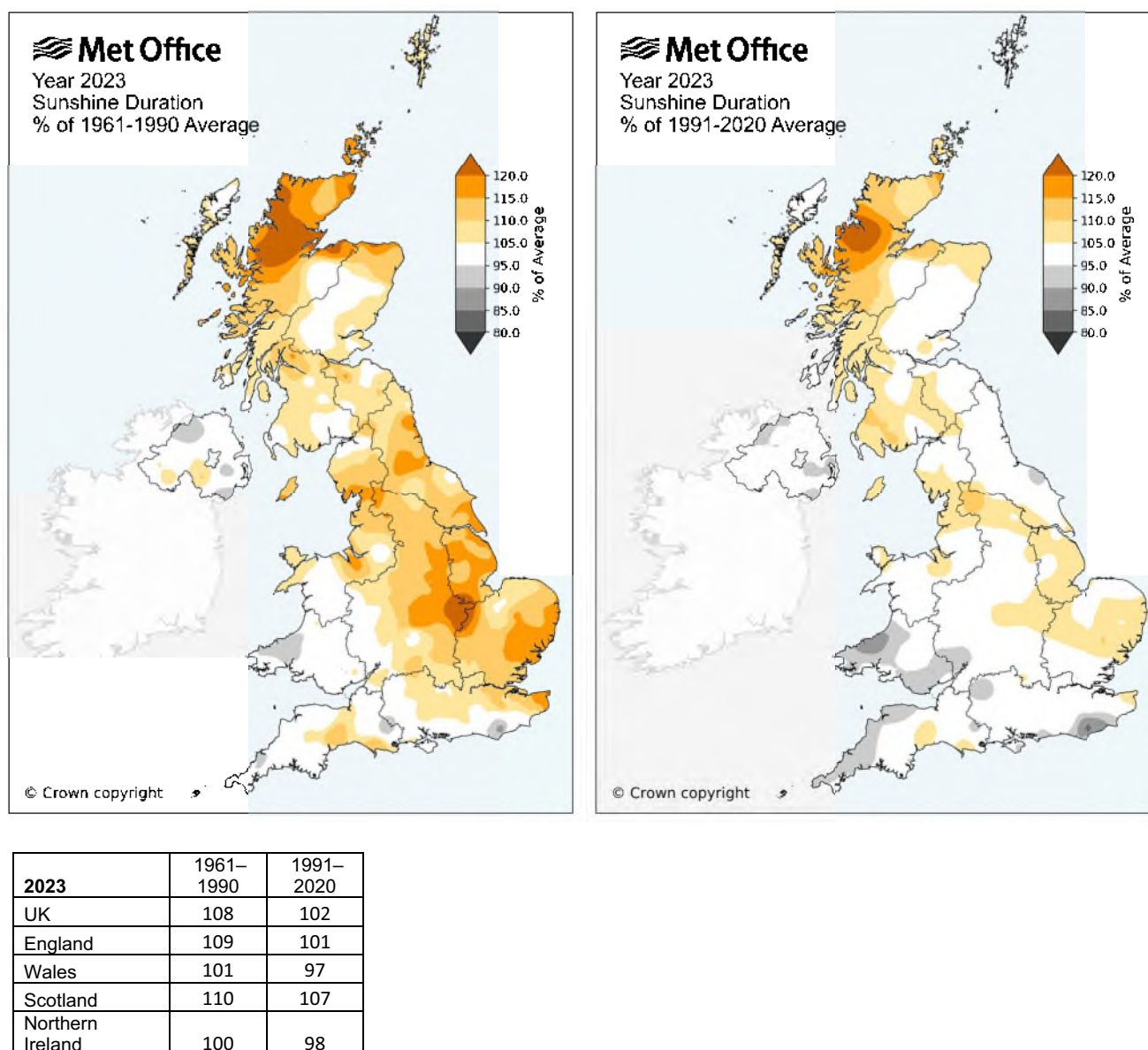


FIGURE 54 (a,b) Sunshine anomalies relative to 1961–1990 and 1991–2020 for year 2023. The table shows percentage of average values for the UK and countries.

October 1987. More recently, major winter storms have included 5th December 2013, 3 January 2012 and 8 December 2011 (for these three, the strongest winds being across Scotland). Storm Eunice on 18 February 2022 (for which two red warnings were issued, including London) was the most severe storm to affect England and Wales since February 2014, but even so, these storms of the 1980s and 1990s were much more severe. Any comparison of storms is complex as it depends on severity, spatial extent, and duration. Nevertheless, recent storms such as Ciarán on 1 to 2 November 2023 (which largely missed the UK to the south) and Ingunn on 1 February 2024 (which largely

missed the UK to the north) are a clear reminder of the potential for exceptionally severe wind storms off the Atlantic to hit the UK. Ingunn (named by the Norwegian Meteorological Institute) was one of the most powerful wind storms in the north Atlantic in observational records, affecting Norway and Sweden.

Changes in instrument type, station network size, station exposure, and choice of metric used mean that interpreting trends in storminess from UK wind speed data is not straightforward due to the limitations of available data, and results should be treated with caution. The wind network on which Figure 60 is based comprises around 120 to 130 stations in the 1970s increase

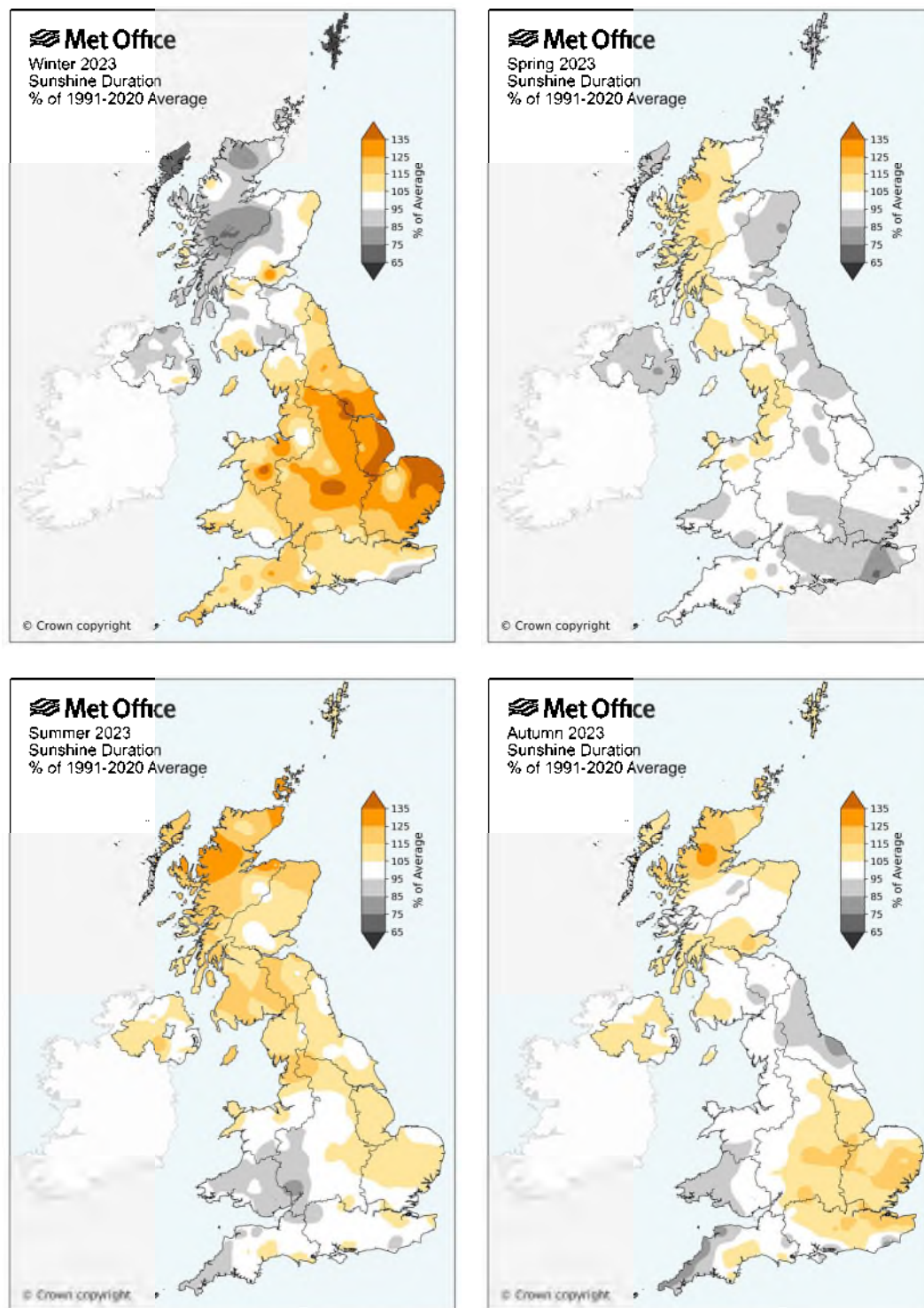


FIGURE 55 2023 seasonal sunshine anomalies relative to 1991–2020. Winter refers to the period December 2022 to February 2023.

180 stations in the 1990s before falling back to around 150 stations. Figure 60 has not been adjusted to take into account this changing network but this may partially account for the higher station counts in 40 Kt gusts through the 1980s and 1990s.

5.2 | Mean wind speed

Figure 61 shows UK annual mean wind speed from 1969 to 2023 based on the HadUK-Grid dataset. This series shows a downward trend through the 1980s and

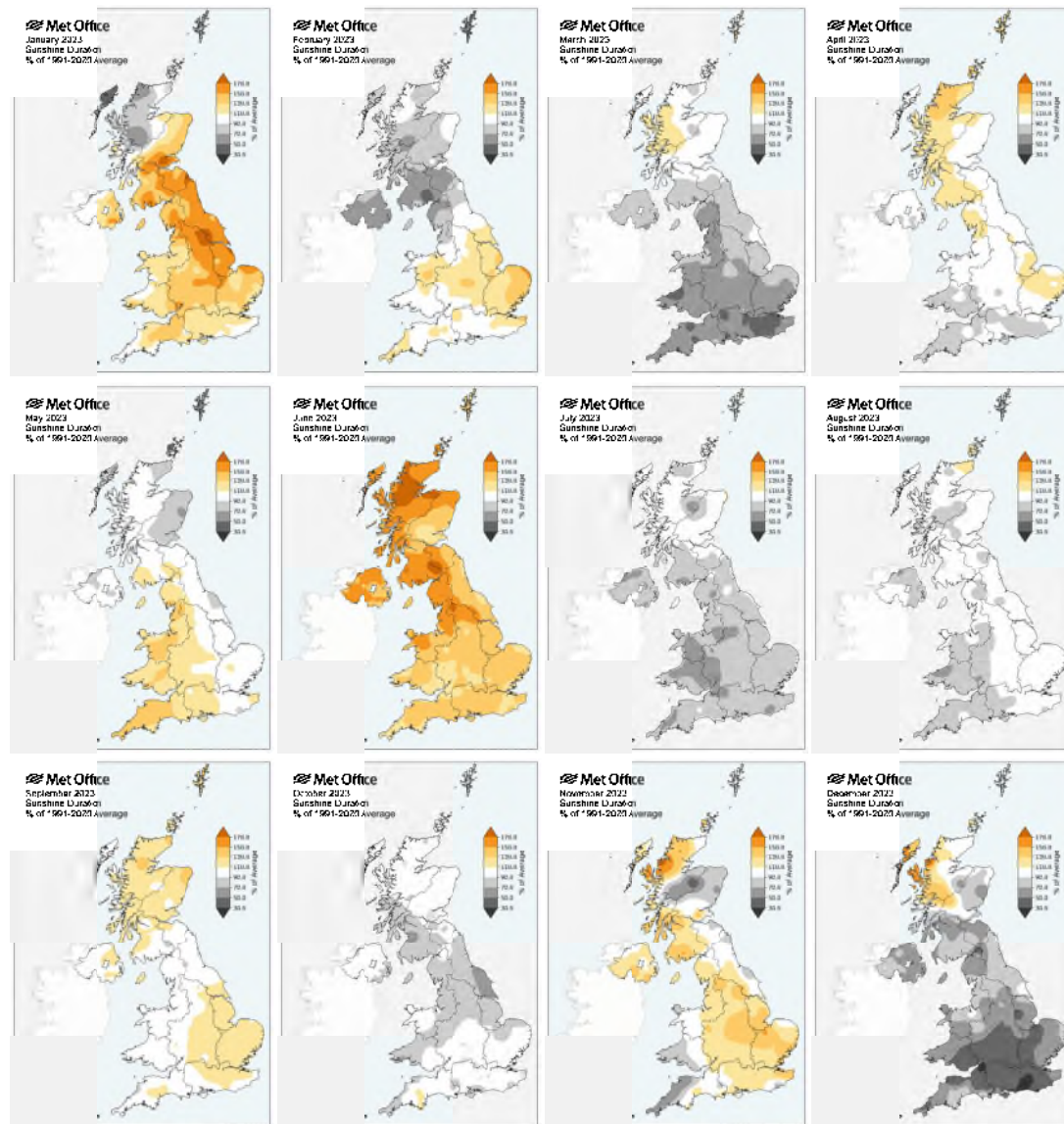


FIGURE 56 2023 monthly sunshine anomalies relative to 1991–2020. The legend scale ranges from 30% to 170%.

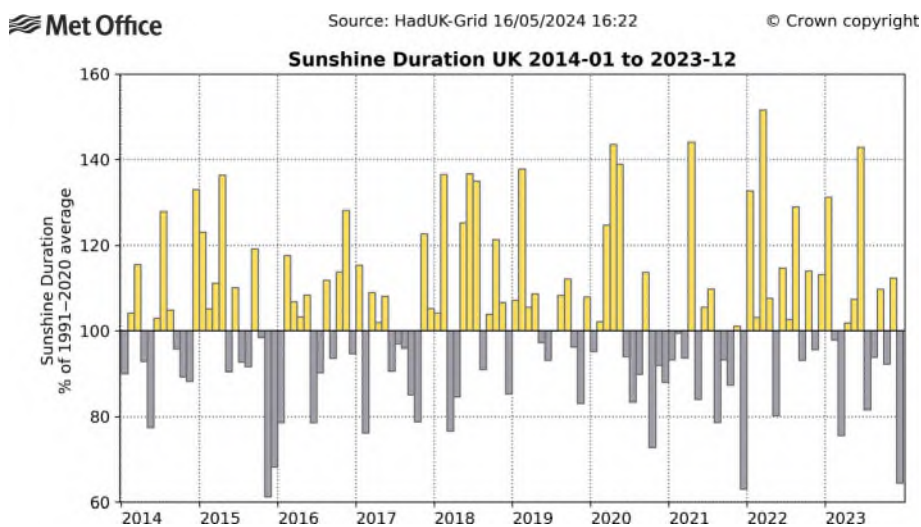


FIGURE 57 UK monthly sunshine anomalies relative to 1991–2020 for the most recent decade 2014–2023 (120 months).

TABLE 12 Monthly, seasonal and annual sunshine actual values (hours) and percentage of average values relative to 1991–2020 for the UK and countries for year 2023.

	UK		England		Wales		Scotland		Northern Ireland	
	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
January	62	131	76	138	56	119	42	121	49	116
February	70	98	86	110	74	108	49	77	40	60
March	82	76	77	66	66	61	96	99	84	83
April	158	102	160	98	143	90	162	114	138	93
May	206	107	225	113	244	128	170	93	173	94
June	245	143	258	138	242	136	227	155	226	150
July	141	82	155	79	125	71	129	92	104	76
August	152	94	169	94	128	80	133	99	122	90
September	140	110	154	109	129	100	122	115	123	109
October	85	92	94	92	82	90	70	94	81	95
November	65	112	75	116	52	94	51	108	64	118
December	28	64	29	56	24	57	27	90	26	68
Winter	181	112	220	120	178	113	123	95	140	95
Spring	447	98	462	96	453	99	428	102	395	91
Summer	538	106	583	103	495	96	489	116	452	107
Autumn	290	104	323	105	263	95	244	107	268	106
Annual	1435	102	1559	101	1366	97	1279	107	1230	98
Key										
	Dullest on record	Top 10 dullest	Dull: ranked in lower third of all years	Middle: ranked in middle third of all years	Sunny: ranked in upper third of all years	Top 10 sunniest	Sunniest on record			

Note: Colour coding corresponds to the rank as given in the key below. The series lengths are 1910–2023 (114 years) except winter which is 1911–2023 (113 years).

The only months of the year notably windier than average were July and December (these being largely unsettled and westerly), while February to June and November were all notably less windy than average.

The 2021 BAMS state of the global climate report (Blunden and Boyer, 2022) shows that on a continental and global scale before around 2010 there was a widespread and general slowdown of near-surface winds termed ‘global stilling’. More recently there are some indications of a reversal of this trend (Zeng et al., 2019). Blunden and Boyer, 2022 and references within conclude that this is likely due to internal variability, which may be further influenced by anthropogenic greenhouse gas forcing, with regional influences from land use change, urbanization and instrumentation issues. However, Dunn et al., 2022 show that this recent reversal of wind stilling may be lower than previous estimates (e.g., Zeng et al., 2019) due to errors in encoding of calm periods in near-surface wind speeds for many stations in Europe and Asia.

The UK mean wind speed series shown in Figure 61 broadly reflects the behaviours documented globally, although in the case of the UK the decline has slowed rather than reversed as reported for the global series. This series must be interpreted with some caution as it has not been rigorously assessed for long term homogeneity, and observations of annual mean wind speed may be significantly affected by changes in the observing network and in the exposure of sites over time. However the broad-scale trend shares some consistency with global wind speed records.

6 | SEA LEVEL

6.1 | Mean sea level

Since the beginning of the 20th century, sea levels in the UK have risen by about 1.5 ± 0.1 mm/year, but observational evidence suggests the rate is increasing (Kendon

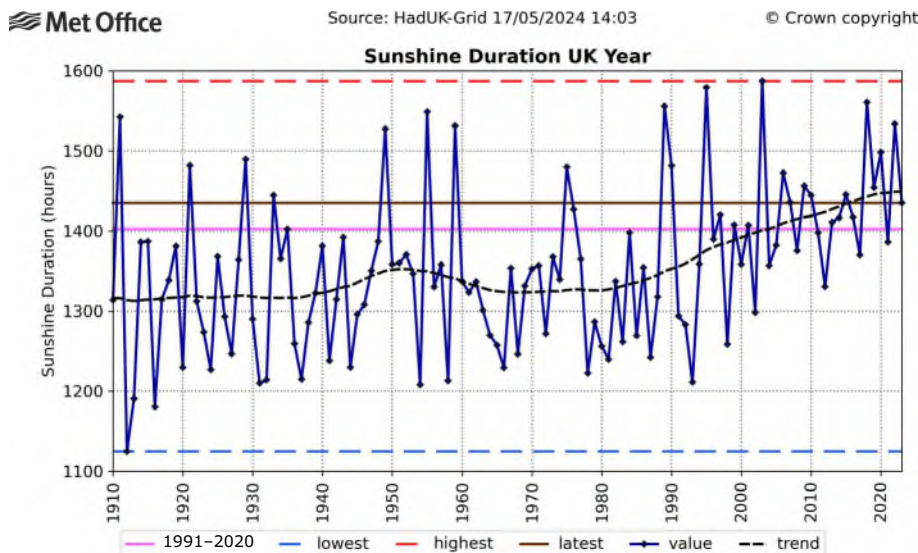


FIGURE 58 Annual sunshine for the UK, 1910–2023. The table shows actual values for the UK and countries (hours) with percentage of average values for 2014–2023.

	1961–1990	1991–2020	2014–2023	2023	2014–2023 % of 1961–1990	2014–2023 % of 1991–2020
UK	1328	1403	1452	1435	109	104
England	1430	1538	1600	1559	112	104
Wales	1352	1407	1444	1366	107	103
Scotland	1165	1200	1235	1279	106	103
Northern Ireland	1233	1255	1276	1230	103	102

et al., 2021), which is consistent with estimate of global sea level rise (Fox-Kemper et al., 2021).

One of the UK's longest continuously-operating tide gauges is Newlyn, with observations beginning in May 1915. The State of the UK Climate reports usually includes a sea level index compiled from records from five long running tide gauges at Newlyn, Sheerness, North Shields, Aberdeen and Liverpool (e.g., Kendon et al., 2023). Unfortunately, we are unable to include that information this year, as only the gauge at Newlyn operated to a sufficient standard to produce data suitable for assessing long-term changes in sea level.

Nevertheless, the data that were available from the national UK tide gauge network suggests that 2023 was an exceptional year, with the highest annual mean on record at the long running record at Newlyn (Figure 62a) and with either the highest or second highest at all but one location returning an annual mean: Ilfracombe (Devon), Portsmouth (Hampshire), Newhaven (East Sussex), Lowestoft (Suffolk), Stornoway (Western Isles) and Port Erin (Isle of Man).

Figure 62b shows seasonal changes in sea level in Newlyn from 1915 to 2023. Sea levels were unprecedentedly high for an extended period between June and October, with four of these 5 months the highest on record. For 2023, the difference between the highest

monthly mean (October) and the lowest (February) was ~37.5 cm, consistent with other sea level observations along the UK coastline. High sea levels are usually observed in autumn and winter (Bulgin et al., 2023), which could be explained by combined changes in atmospheric pressure, winds both in shallow water areas and in the deep ocean, and large-scale advected steric changes (density changes due to temperature and salinity variations). Monthly mean sea level pressure (mslp) for the UK tends to be lowest in autumn and early winter, associated with the jet stream shifting further south and introducing more active Atlantic low pressure systems at this time of year (a 1 hPa drop in pressure corresponding to 1 cm of sea level rise). UK monthly mslp anomalies can partially explain the high sea level in autumn 2023 (see Figure 2). However, the magnitude of seasonal changes varies across the country and from year to year.

There is evidence that the rate of UK sea-level rise is increasing, with the rate of sea level rise since the 1960s increasing to 2.4 ± 0.3 mm/year (Hogarth et al., 2020), from the long-term estimate of 1.5 ± 0.1 mm/year since the 1900s (Kendon et al., 2021). This change is also reflected in the record at Newlyn alone, where sea levels have risen at the rate of 2.4 ± 0.3 mm/year between 1960 and 2023 compared with 2.1 ± 0.2 mm/year over the entire length of the record (1916–2023).

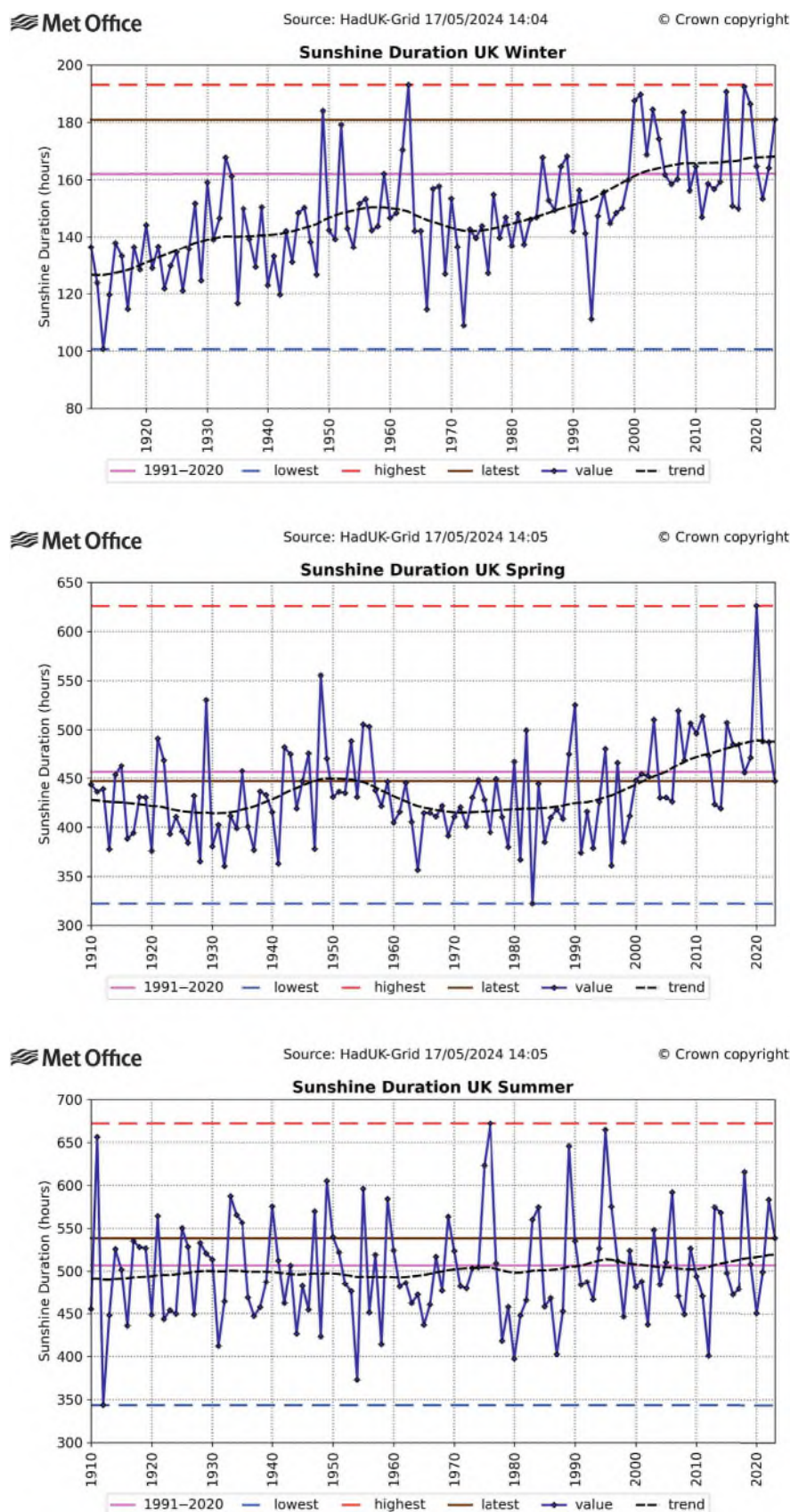


FIGURE 59 Seasonal sunshine for the UK for (a) winter, (b) spring, (c) summer, (d) autumn (overleaf) 1910–2023 (winter 1911–2023). Note the y-axis gridline spacing differs between the figures. The table shows actual values for the UK for each season (hours) with percentage of average values for 2014–2023.

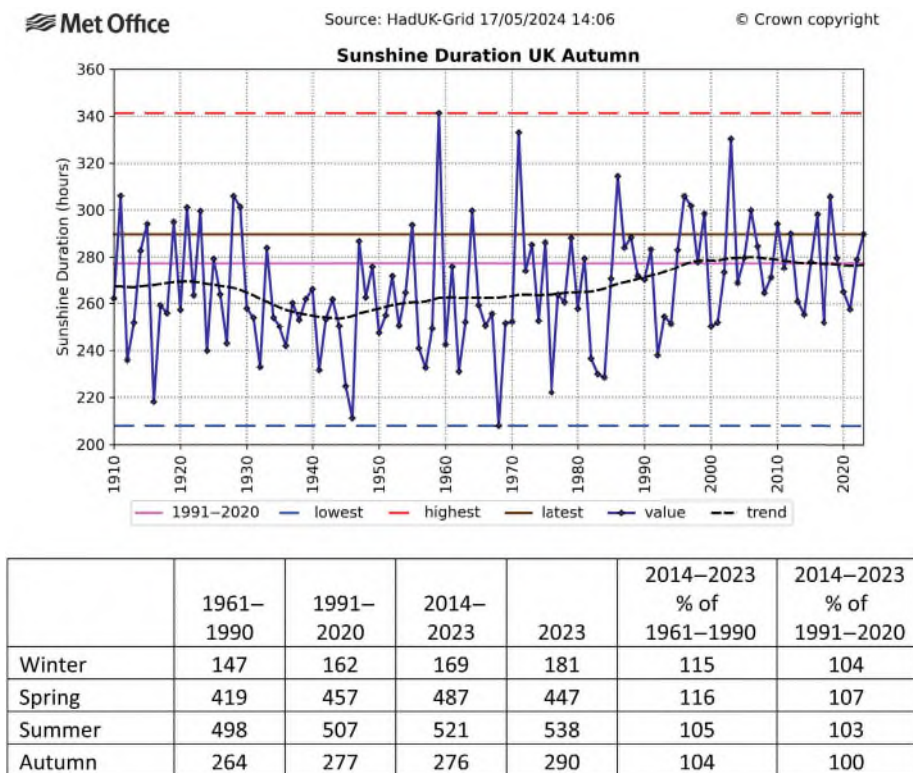


FIGURE 59 (Continued)

Figure 63 shows that these changes have become more pronounced in recent years, and during 1993–2023, sea level has risen at a rate of 4.6 ± 0.9 mm/year, giving a total sea-level rise since 1993 of about 14 cm, which is in good agreement with the 10.1 cm of global mean sea-level rise estimated from satellite altimetry (Johnson et al., 2023 updated).

6.2 | Extreme sea level

There were 16 extreme storm-surge events in 2023, of which 13 were associated with storms named either by the western European storm naming group (Met Office, Met Éireann and KNMI), DMI or Météo-France (see Table A5 for details). Storm surges for the UK are associated primarily with Atlantic low pressure weather systems, caused by wind stress at the sea surface and the horizontal gradient of atmospheric pressure, although the magnitude of any particular storm surge is influenced by many factors including the intensity and track of the weather system, bathymetry, and the shape of the UK coastline (Williams et al., 2016).

On 10 to 11 December storm Fergus led to skew surges (see Appendix A17 for an explanation of this term) up to 1 m in the Irish Sea, but occurred during neap tides and total water levels were not high. Storm Pia on

21 December resulted in the highest skew surges of the year observed in southeast England (Cromer, Norfolk 1.2 m, Lowestoft, Suffolk 1.5 m, Harwich, Essex 1.4 m, Sheerness, Kent 1.2 m and Dover 1 m) with >1 m modelled widespread across the North Sea. Despite Pia occurring during a neap tide, Harwich and Lowestoft recorded their maximum total sea level for the year (Figure 64c,e).

During storm Gerrit on 27 December there were widespread positive skew surges (0.5–1 m) in the west of the UK. Combined with a moderate spring tide this event led to the highest levels of the year at Millport, Ayrshire (near Glasgow). This event was also notable for negative surges (approaching –1 m) in the North Sea (Figure 64d,f). The contrast in skew surge patterns between storms Pia and Gerrit corresponds to the contrasting track of these two storms, with north-westerly winds from storm Pia and south-westerly winds from storm Gerrit (Figure 64a,b).

There were several named storms in August and September, not often observed at this time of year. Storms Antoni and Betty in August did not lead to significant storm surges. During storm Agnes on 27 September, there were high skew surges in north-west England (Workington, Cumbria 0.9 m), Scotland (Millport, Ayrshire 0.9 m, Portpatrick, Galloway 0.8 m) and Northern Ireland (Bangor, County Down 0.8 m). Agnes led to the highest totals of the year in Northern Ireland where the tidal range is small.

TABLE 13 The windiest days of year 2023.

Date	England (99)	Wales (11)	Scotland (33)	Northern Ireland (17)	Total (160)	Named storm
06/01/2023	3	1	6		10	
10/01/2023	3	4	5	2	14	
11/01/2023	8	8	3		19	
12/01/2023	19	9	1	3	32	
13/01/2023	8	4			12	
14/01/2023	8	2	5		15	
15/01/2023	7	3	1	1	12	
31/01/2023			11		11	
17/02/2023	9		21	1	31	Otto (DMI)
19/02/2023	1		10		11	
13/03/2023	16	10	1		27	
11/04/2023	15	10	1		26	Noa (Météo-France)
12/04/2023	19	9			28	Noa (Météo-France)
20/09/2023	4	7	3		14	
27/09/2023	5	9	1	2	17	Agnes
19/10/2023	2		13		15	Babet
20/10/2023	7		6	2	15	Babet
01/11/2023	5	3	2		10	Ciarán
02/11/2023	13	1			14	Ciarán
13/11/2023	13	9	1	2	25	Debi (Met Éireann)
23/11/2023	1	1	11		13	
09/12/2023	9	5		2	16	Elin (Met Éireann)
10/12/2023	4	9			13	Fergus (Met Éireann)
21/12/2023	29	4	25	5	63	Pia (DMI)
24/12/2023	9	3	15	1	28	
27/12/2023	16	11	16	2	45	Gerrit
28/12/2023	16	11	3		30	Gerrit
30/12/2023	8	4	2	3	17	
31/12/2023	6	3	3		12	

Note: The table lists dates where 10 or more stations across the UK recorded a maximum wind gust greater than or equal to 50 Kt (58 mph) on that day. The table also gives a count of stations by country. The indicative number of wind observing sites in 2023 for each country (based on data availability) is also given in brackets. Colours refer to counts >10, 20 and 30 stations.

Extreme sea levels in the UK are a combination of storm surge, waves, tide and mean sea level. If Agnes had been a few days later, the spring tide on 1 October would have led to very high total levels (e.g., 1 m higher at Heysham, Lancashire). Storm Ciarán also fell on moderate tides, so despite widespread skew surges of (0.5–1 m) the total water level was not high at most sites. In the Channel Islands, the modelled skew surge at Jersey was around 1 m, and Jersey was severely affected by wave damage, but unfortunately no tide gauge data was transmitted during that week. The highest level of 2023 was recorded at Bournemouth.

The moderate (0.5–1 m) skew surge on west and north coast of UK on 23 March was not associated with any named storm but coincided with the equinoctial spring tide, leading to this being the highest recorded level of the year at 18 sites in Scotland, Wales and the west coast of England.

The highest levels of 2023 observed on several east coast sites were not linked to any particular storms or meteorological conditions, but were due to September spring tides. In south and south-west England and south-west Wales the highest total sea-levels were also not associated with a named storm, but a spring tide combined

the sustained period of high mean sea-level throughout late October and early November (see Figure 62b). Additional figures with observations and operational surge modelling for all named storms of the year, and the three skew surges not associated with named storms, are available in Williams (2024). Highlighted storms and other high levels are listed in the Appendix A17 Tables A5 and A6.

TABLE 14 UK named storms of 2023.

Name	Date of impact on UK
Otto	17 February (named by Danish Meteorological Institute, DMI)*
Noa	11 to 12 April (named by Météo-France)*
Antoni	5 August
Betty	18 to 19 August
Agnes	27 to 28 September
Babet	18 to 21 October
Ciarán	1 to 2 November
Debi	13 November (named by Met Éireann)
Elin	9 December (named by Met Éireann)
Fergus	10 December (named by Met Éireann)
Pia	21 December (named by Danish Meteorological Institute, DMI)*
Gerrit	27 to 28 December

Note: Asterisks indicates notable storms named by other national meteorological services outside the Met Office storm naming group (Met Office, Met Éireann and KNMI) under different naming schemes. Named storms Antoni and Betty did not meet the count threshold used in Table 13.

7 | EXTREMES

7.1 | Annual extremes

Table 15 shows the UK weather extremes for year 2023. The highest temperature of the year, 33.5°C at Faversham, Kent on 10 September is described in the events Section 9.2. This was fairly modest compared with other years of the most recent decade, half of which have exceeded 35°C. The UK’s highest annual maximum has occurred in September on only a handful of previous occasions in observational records, most recently in 2016. Although notably high for September, 33.5°C fell well short of the UK September record of 35.6°C set at Bawtry, South Yorkshire on 2 September 1906, with another higher value only 7 years previously: 34.4°C at Gravesend, Kent on 13 September 2016. The maximum for summer months were June (32.2°C), July (30.2°C) and August (28.4°C). Temperatures of 30°C in August are perhaps less common than might be expected, having failed to be reached in 2023, 2021, 2017 or 2014. The UK’s highest daily minimum temperature also occurred in early September at two coastal stations (September was the warmest month of the year for UK near-coast SST with 15.7°C—see Figure 73).

The lowest minimum and grass minimum temperatures occurred in early March, in an Arctic airmass with clear skies, light winds and lying snow (as is typically the case for these annual extremes). The fact that the UK’s highest and lowest temperatures of the year occurred outside the summer and winter months demonstrates the

TABLE 15 Annual extremes for the UK for year 2023.

Extreme	Observation	Date	Station
Highest daily maximum temperature (09–09 UTC)	33.5°C	10 September	Faversham, Kent, 46 masl
Lowest daily minimum temperature (09–09 UTC)	−16.0°C	9 March	Altnaharra, Sutherland, 81 masl
Lowest daily maximum temperature (09–09 UTC)	−4.0°C	2 December	Balmoral, Aberdeenshire, 283 masl
Highest daily minimum temperature (09–09 UTC)	20.5°C	7 September	Ventnor Park, Isle of Wight, 60masl
Lowest grass minimum temperature (09–09 UTC)	−19.4°C	8 March	Braemar, Aberdeenshire, 327 masl
Highest daily rainfall (09–09 UTC)	173.4 mm	19 October	Stonyford, Aberdeenshire, 195 masl
Greatest snow depth (09 UTC)	34 cm	18 January 19 January	Loch Glascarnoch, Ross and Cromarty, 269 masl
Highest daily sunshine	16.9 h	15 June	Loch of Hundland, Orkney, 28 masl
Highest gust speed	83 Kt 96 mph	12 April	Needles Old Battery, Isle of Wight, 80 masl
Highest gust speed (mountain)	107 Kt 123 mph	27 December	Cairngorm Summit, Inverness-shire 1237 masl

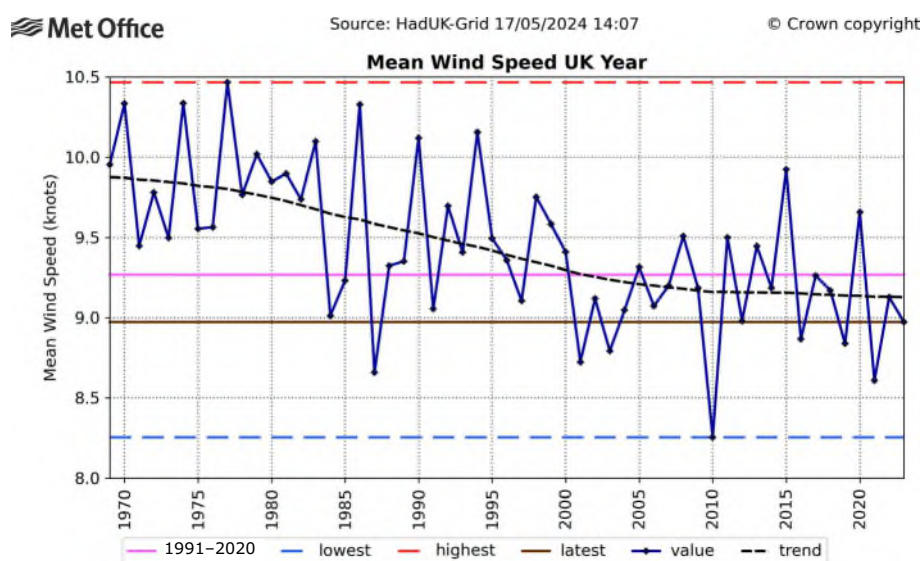
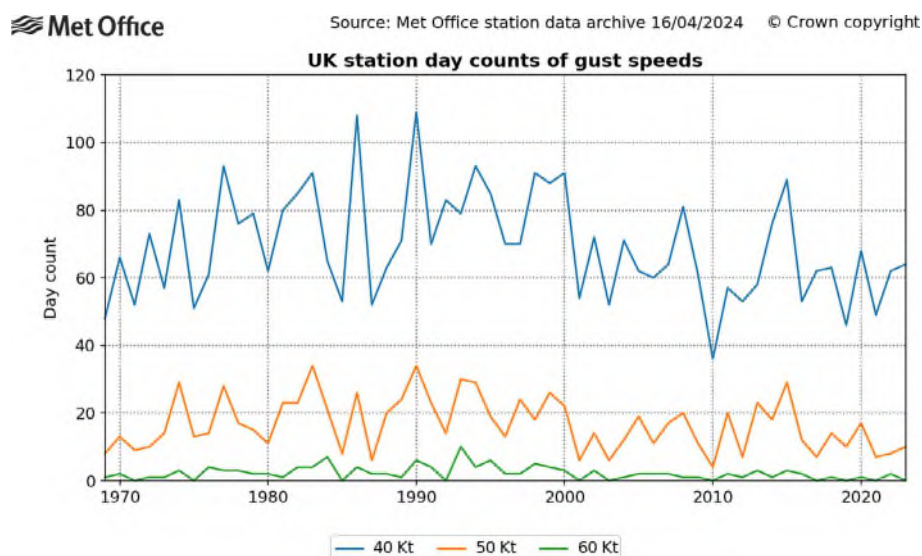
Note: Stations above 500 masl are considered as mountain stations and therefore not representative of low-level areas. They are excluded from the table with the exception of the highest mountain gust. Channel Islands stations are excluded.

variable nature of the UK's climate. The greatest snow depth on 18 and 19 January was as a result of steady accumulation over the previous days from the 15th from persistent snow showers in a northerly airstream.

The highest daily rainfall occurred during storm Babet in which a red warning for rain was issued (see Section 9.4 for more details of this event). The highest rainfall total of the year would typically be associated with either

orographic enhancement of frontal rainfall in a westerly Atlantic flow across western Scotland, the Cumbrian Fells or Snowdonia, particularly when an active front becomes stationary for a prolonged period (as, e.g., in 2021 and 2022), or, less commonly, a highly localized extreme convective rainfall event (as, e.g., in Norfolk in August 2020). Unusually, however, the 173.4 mm total at Stonyford was due to extreme orographic enhancement in an easterly

FIGURE 60 Count of the number of individual days each year during which max gust speeds ≥ 40 , 50 and 60 Kt (46, 58, 69 mph; 74, 93, 111 kph) have been recorded by at least 20 or more UK stations, from 1969 to 2023. Stations above 500 masl are excluded. The counts for 2023 are 64 (40 Kt), 10 (50 Kt) and 0 (60 Kt). The 10 individual days in 2023 in which at least 20 stations recorded gusts ≥ 50 Kt are listed in Table 13, the majority of these being named storms.



	1991–2020	2014–2023	2023
UK	9.3	9.2	9.0
England	8.3	8.2	8.1
Wales	9.9	9.7	9.7
Scotland	10.7	10.7	10.3
Northern Ireland	8.5	8.6	8.4

FIGURE 61 Annual mean windspeed for the UK, 1969–2023. The table shows actual values for the UK and countries (Kt).

flow, affecting eastern Scotland (i.e., the reverse of the normal direction).

The highest gust speed was at Needles Old Battery, Isle of Wight, during storm Noa (named by Météo-France). This station is located at the western end of the Isle of Wight, at 80 masl at the top of a cliff and is fully exposed to westerly winds blowing up the English Channel. As a consequence it has recorded the UK's highest gust speed across all except mountain stations for a number of recent years. However, it is not very representative of southern England. The highest gust speed at a mountain station was at Cairngorm Summit during storm Gerrit (see Section 9.6).

Figures 65 and 66 show the UK's highest maximum and lowest minimum temperatures, by year, across all stations, from 1900. The UK's average highest maximum temperature for the most recent decade 2014–2023 was 35.6°C, 2.1°C higher than 1991–2020 and 4.3°C higher than 1961–1990—these changes being much greater than the equivalent increases for the UK annual mean temperature (0.42°C and 1.25°C) (Table 2, Figure 11). 35.6°C (the average highest maximum temperature for 2014–2023) was exceeded in 4 years of the 20th century (1911, 1932, 1976 and 1990), whereas in the 21st Century so far it has already been reached or exceeded in 7 years: 2003, 2006, 2015, 2018, 2019, 2020 and 2022.

The UK's average lowest minimum temperature for the most recent decade 2014–2023 was −14.6°C, 0.9°C higher than 1991–2020 and 4.4°C higher than 1961–1990. The period 1961–1990 included some particularly extreme cold spells with temperatures falling to −20°C or lower in 16 of these 30 years. For comparison, in the 21st Century −20°C has been recorded in just 3 years: 2001, 2010 and 2021. The trends shown in these station series are likely to be affected by station data availability,

particularly before the 1960s, since a lower station network density will be less able to capture extremes.

7.2 | Monthly temperature extremes

Castlederg, County Tyrone recorded a daily maximum temperature of 28.0°C on 8 September, a new Northern Ireland highest daily maximum temperature record for

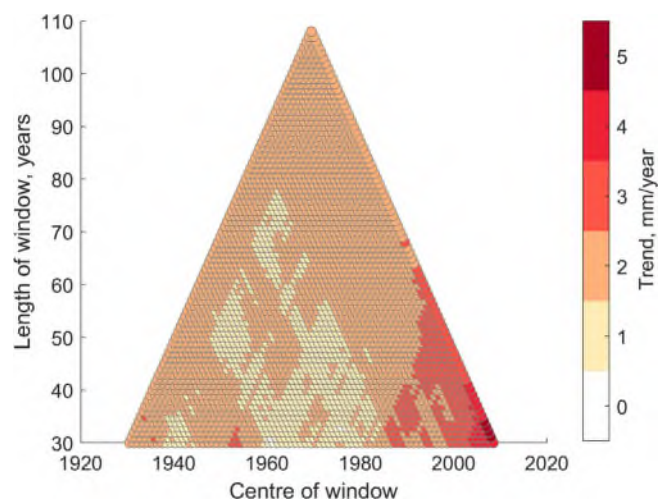


FIGURE 63 Trends at Newlyn fitted over all possible windows at least 30 years long between 1915 and 2023. Each point represents one window, with the value on the horizontal axis representing the centre of the window, the value on the vertical axis representing the length of the window, and the colour of the point encoding the value of the trend. So, for example, the point at (1960–1961) represents the trend over the period 1930–1990.

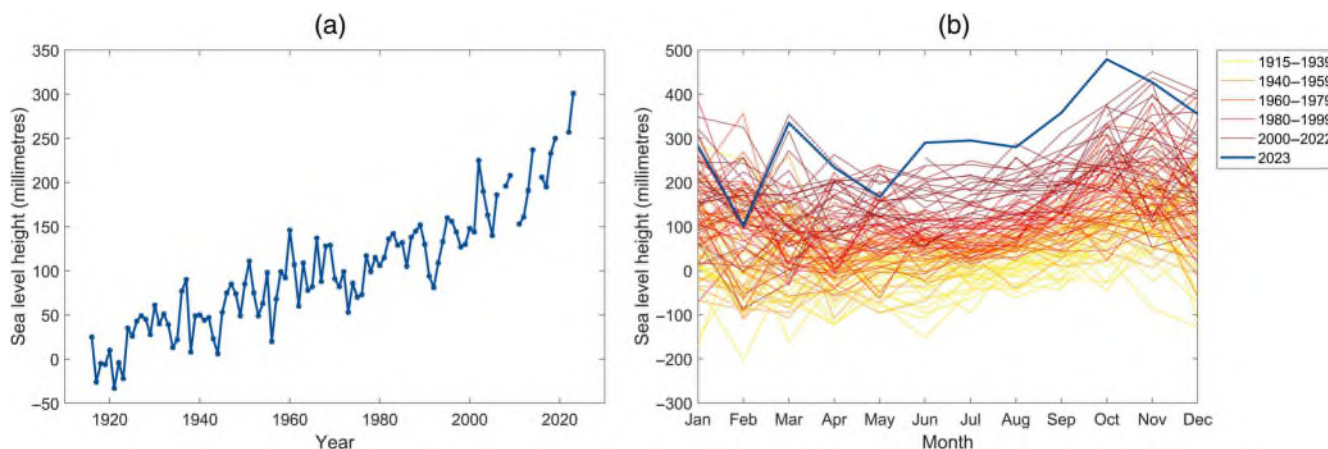


FIGURE 62 (a) Annual mean sea level at Newlyn, Cornwall, 1916–2023 with 2007, 2010, 2015, 2020 and 2021 missing due to insufficient data. (b) Monthly means at Newlyn, 1915–2023. Each individual year plotted as a single line coloured by year. Heights are millimetres above Ordnance Datum Newlyn (ODN), based on mean sea level at Newlyn 1915–1921.

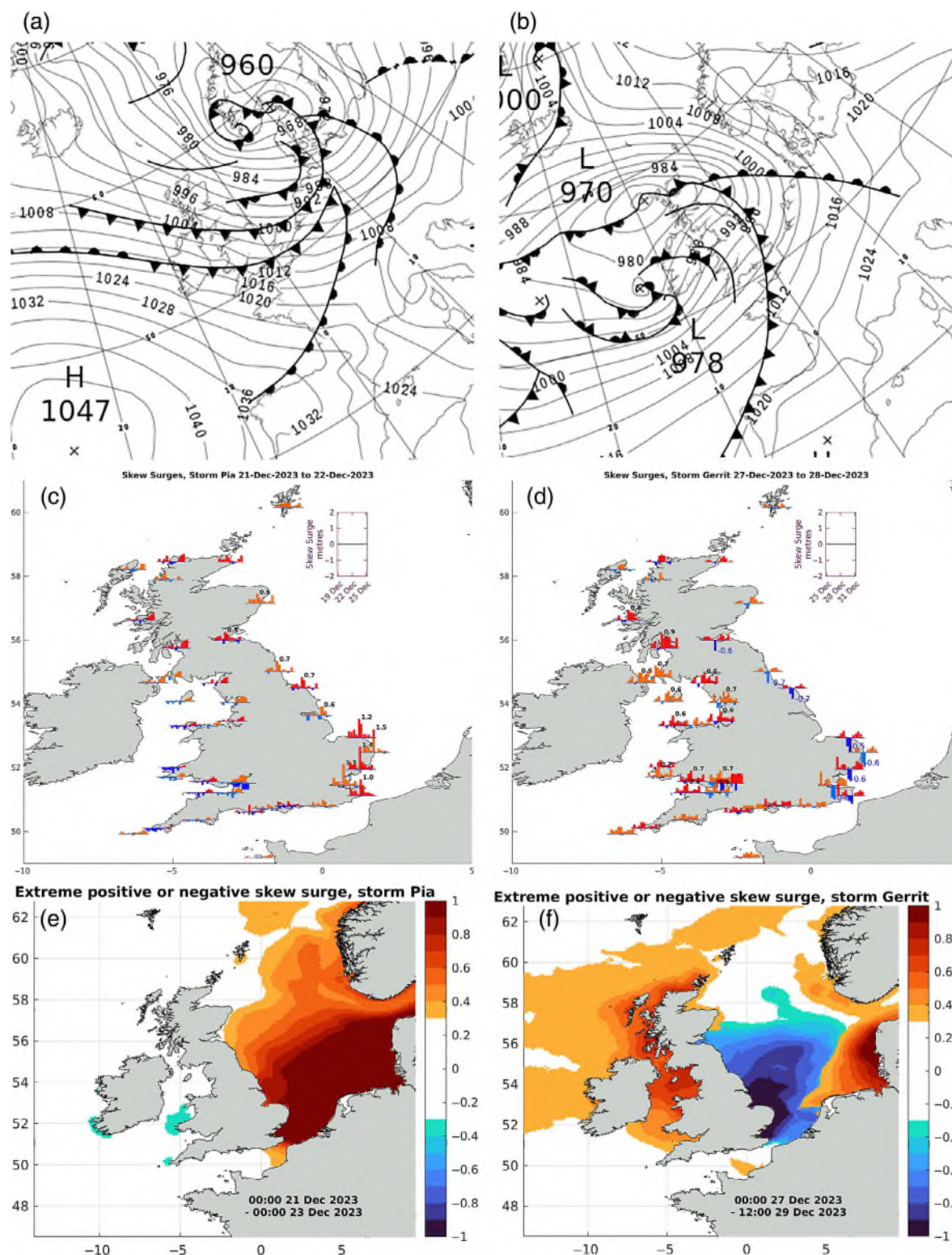


FIGURE 64 (a,b) Analysis chart at 1200 UTC 21 December 2023 (storm Pia) and 1800 UTC 27 December 2023 (storm Gerrit). (c,d) Skew surge from tide gauge observations. (e,f) Skew surge from storm surge model of storms Pia and Gerrit. Pia caused high skew surges on the east coast, in the North Sea. Gerrit was high on the west coast and lower levels than the predicted tide on the east. The model used here is the NEMO surge and tide operational model (Furner et al., 2016), and it shows patterns of extreme skew surges in open water that correspond well with observed extremes.

September, exceeding 27.6°C at Armagh on 1 September 1906.

Prestatyn, Denbighshire recorded a daily minimum temperature of 20.0°C on 25 June, a new Wales highest daily minimum temperature record for June, exceeding 19.9°C at Swansea, Victoria Park on 30 June 1976.

Portglenone, County Antrim recorded a daily minimum temperature of 17.5°C on 14 June, equalling the Northern Ireland highest daily minimum temperature record for June, at Annaghmore, County Armagh on 18 June 2005.

All official UK station records are available on the Met Office website at <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-extremes>. For more details of the verification process for these records, see Appendix A7.

8 | CLIMATE CHANGE CONTEXT

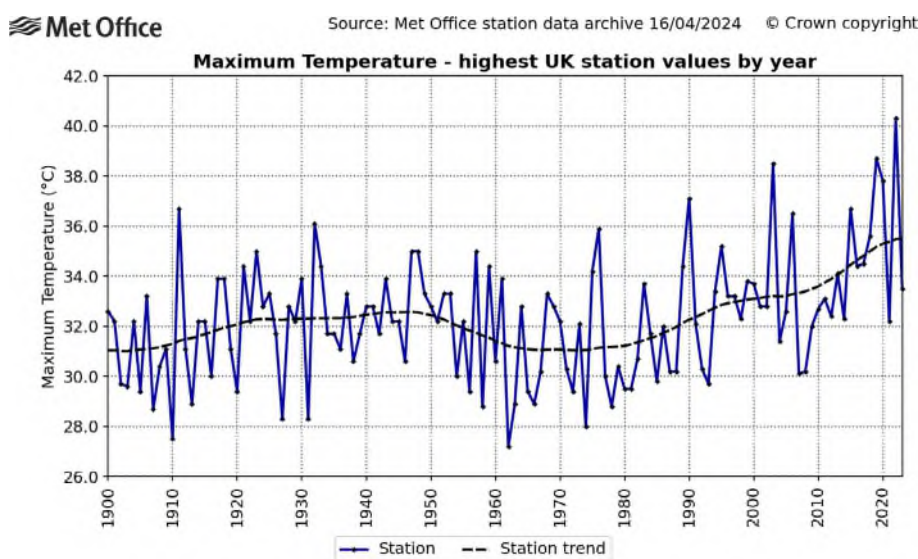
8.1 | Temperature

An attribution study was carried out to quantify the influence of human-caused climate change on the likelihood of reaching a UK annual average temperature at or above that recorded in 2023 (Ciavarella and McCarthy, 2024). The method used an established Met Office system for rapid attribution of extreme events (Christidis, 2021). The analysis used observed values of the UK annual temperature and near surface temperature data for the UK from 14 climate model simulations from the sixth phase of the global coupled model intercomparison project (CMIP6,

Eyring et al. 2016). One set of model simulations used only natural climate forcings (‘NAT’) for the period 1850–2020, while another set used all natural and human-caused forcings (‘ALL’) for the historical period and the SSP2-4.5 emissions scenario, often described as a ‘medium’ emissions scenario, out to 2100. These simulations provide estimates of the likelihood of the UK annual temperature exceeding the observed 2023 value for the following scenarios: A natural climate without human-caused greenhouse gases; the current climate taken as a 20-year period centred on 2023; an end-of-century climate under a medium emissions scenario taken as the period 2081–2100.

The estimated return period for a UK annual average temperature exceeding 9.97°C in the NAT simulations was once every 460 years (with a range of 82–587). For the ALL simulations in the present day, this fell to once every 3 years (with a range of 2.86–3.17). For the ALL simulations in the future, it fell further, meaning an annual mean temperature like 2023 being exceeded more frequently than every other year. Human-caused climate change is therefore estimated to have increased the likelihood of a year as warm as 2023 by a factor of more than 150.

Figure 67 plots annual T_{mean} for the UK from 1884 to 2023 alongside UK climate projections (UKCP) from 1961 to 2100, presenting the observations against the future climate context. These are probabilistic projections of the latest set of national climate projections for the UK under different scenarios RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5 (Murphy et al., 2018, Harris et al., 2022). RCPs



	1961–1990	1991–2020	2014–2023	2023
T_{max}	31.3	33.5	35.6	33.5

FIGURE 65 UK highest maximum temperature station observations for each year 1900 to 2023. The table shows actual values (°C). The figure shows the evolution of the UK national record through time—in 1911 (36.7°C), 1990 (37.1°C), 2003 (38.5°C), 2019 (38.7°C) then 2022 (40.3°C). Not all values have been manually checked, and values may change as further data are digitized

are broadly comparable with SSPs for temperature response (i.e., RCP 4.5 is broadly comparable with SSP2-4.5) although there are some differences in the detail including the greenhouse gas mix. The projections provide estimates of uncertainty in future change in monthly, seasonal and annual averages for key UK climate variables. The green line and grey shading shows the RCP 4.5 intermediate pathway scenario and how T_{mean} would be projected to evolve through the 21st century based on this scenario. The spread represents the range of temperature accounting for both annual variability in UK climate and uncertainty in the magnitude of future change. Which

emission pathway is followed will depend on how future emissions evolve globally and Earth's associated response. For example, RCP 8.5 would represent a backtracking on current global policy commitments. The figure therefore illustrates a range of possible outcomes through to 2100 and shows that thus far UK annual T_{mean} observations are broadly consistent with these projections.

By 2100 the RCP 4.5 scenario projects the UK annual mean temperature as $+2.2^{\circ}\text{C}$ relative to 1991–2020 (50th percentile), ranging from $+0.4^{\circ}\text{C}$ to $+4.2^{\circ}\text{C}$ (5th to 95th percentiles). Under the RCP 4.5 scenario a year such as 2023 (anomaly $+0.83^{\circ}\text{C}$, the UK's second warmest year

FIGURE 66 UK lowest minimum temperature station observations for each year 1900 to 2023. The table shows actual values ($^{\circ}\text{C}$). The figure shows the national record in 1982 and 1995 (-27.2°)—which also occurred in 1895. Not all values have been manually checked, and values may change as further data are digitized.

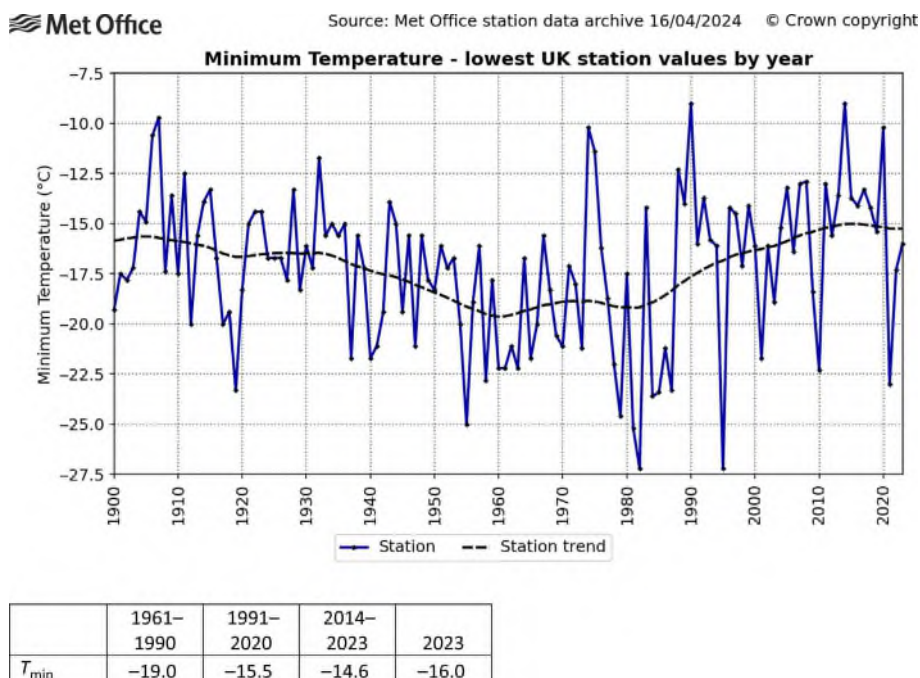
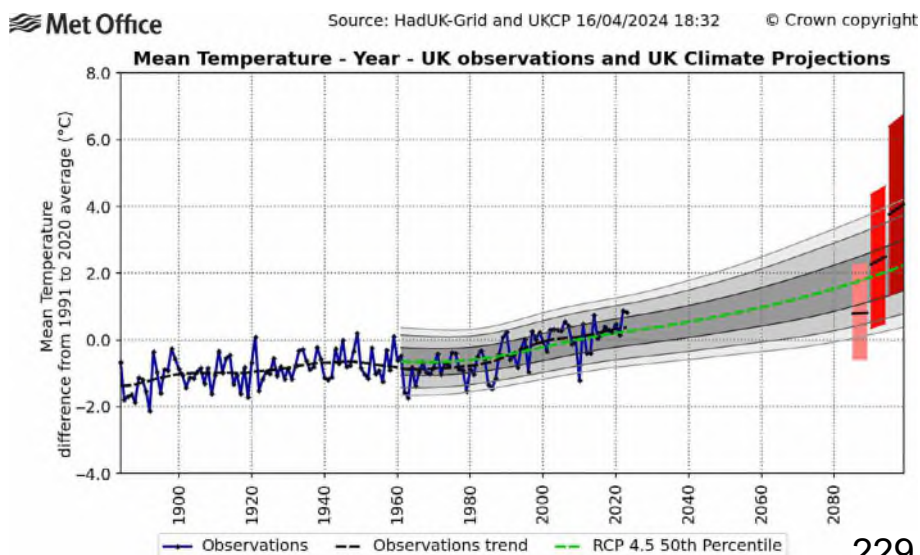


FIGURE 67 Annual mean temperature for the UK, 1884–2023 and UK Climate Projections plume plot 1961–2100 as anomalies relative to 1991–2020 showing Representative Concentration Pathway (RCP) 4.5. The grey shading shows the 5–95 percentile, 10–90 percentile, and 25–75 percentile ranges. Other scenarios RCP 2.6 (light red), 6.0 (mid red) and 8.5 (dark red) are included in the 2080s showing the 50th percentile and 5–95 percentile ranges.



on record) would be considered an average year by the 2050s and a cool year by around 2100.

To provide a long term perspective on the rate of change in temperature shown by these projections, the length of the UK's longest instrumental record (CET) series from 1659 is around 360 years, and for around three centuries to the late 20th century, fluctuations in the trend line in this series have generally been within $\pm 0.5^{\circ}\text{C}$ of the long term mean over this period (Figure 16). For comparison, the future UK climate projections period (to 2100) is around 80 years. An intermediate scenario projects around 2°C of warming relative to 1991–2020 and a high emissions scenario around 4°C of warming by 2100. This represents a change very much larger in magnitude than these previous fluctuations and in only a quarter of the timespan of the CET series, pushing the UK's climate well outside the envelope of the current and historical range. Under the RCP 8.5 very high

emission scenario an individual year on the 50th percentile would have an annual mean temperature of 13.2°C , more than 3°C warmer than 2023. This difference of 3°C is comparable to that between the UK's warmest and coldest years on record, 1892 and 2022 (Figure 11).

The attribution study results are, unsurprisingly, similar to an equivalent study reported in last year's report on the record-breaking annual mean temperature of 2022 (Kendon et al., 2023). The study indicates that, despite being the warmest and second warmest years on record, 2022 and 2023 are not necessarily extreme in the context of the UK's current climate and therefore emphasizes that observations alone do not provide the full context for year 2023. An important implication of the study is that there is the potential for a far higher UK annual average temperature, not just in the future but also in the present-day climate. Taken together, the attribution study and climate projections show that

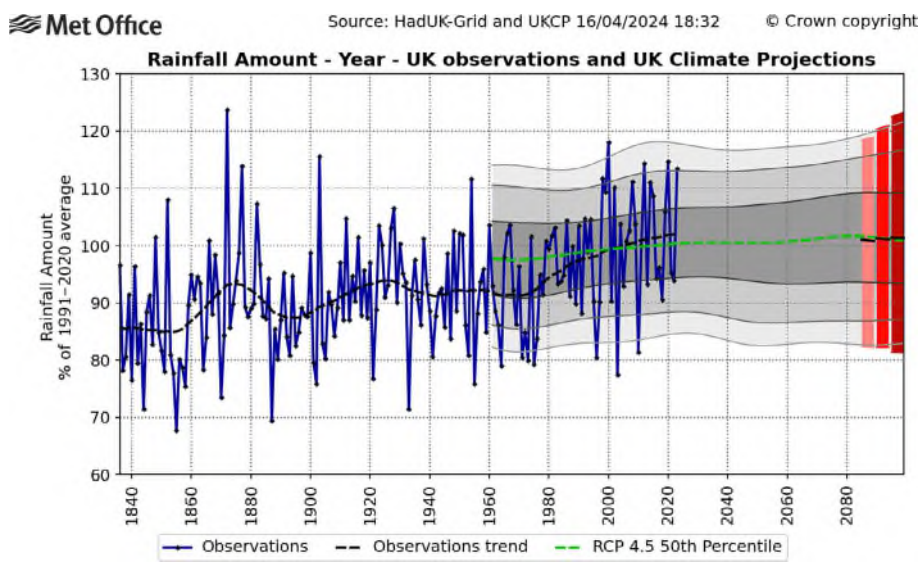


FIGURE 68 Annual rainfall for the UK, 1836–2023 and UK Climate Projections plume plot 1961–2100 as anomalies relative to 1991–2020 showing Representative Concentration Pathway (RCP) 4.5. The grey shading shows the 5–95 percentile, 10–90 percentile and 25–75 percentile ranges. Other scenarios RCP 2.6 (light red), 6.0 (mid red) and 8.5 (dark red) are included in the 2080s showing the 50th percentile and 5–95 percentile ranges.

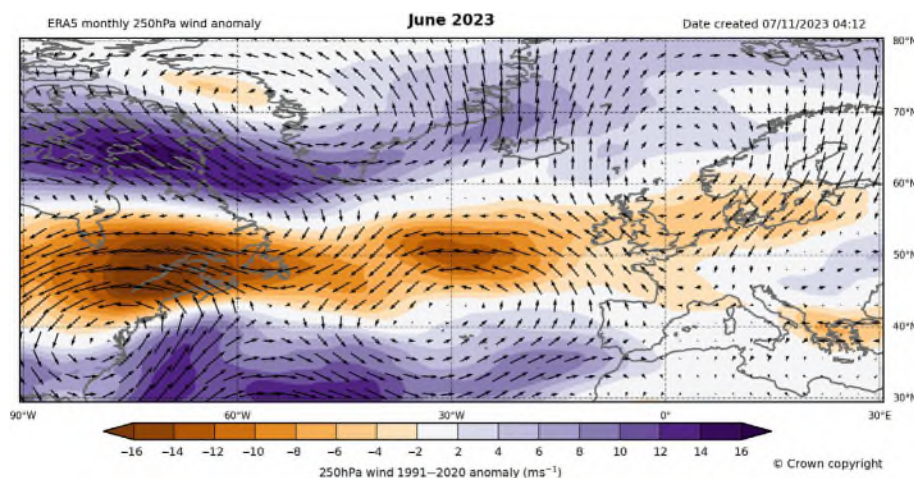


FIGURE 69 June 2023 wind anomalies (ms^{-1}) at 250 hPa relative to the 1991–2020 average using the ERA5 reanalysis (Hersbach et al., 2020). 250 hPa is a level of equal pressure equivalent to a height of $\sim 10,500$ the level of the jet stream.

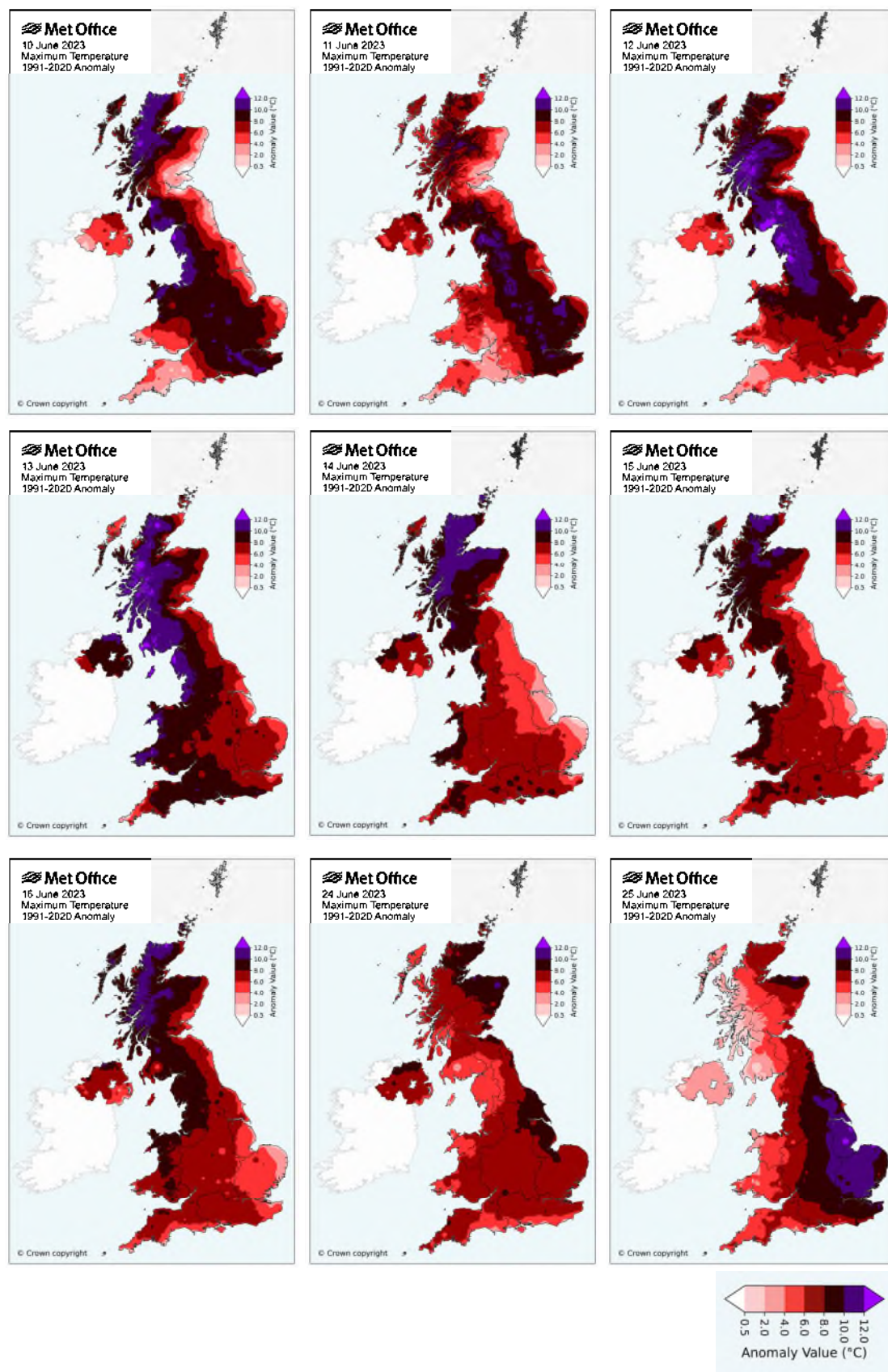


FIGURE 70 The hottest days of June 2023: daily maximum temperature anomalies (°C) relative to the 1991–2020 June average for the week of 10 to 16 June, plus 24 and 25 June.

Met Office

Source: HadUK-Grid 17/05/2024 14:33

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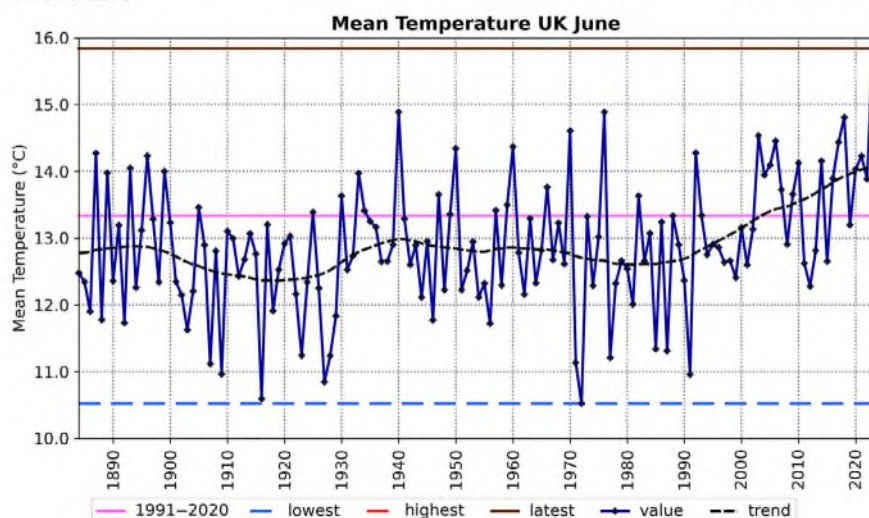


FIGURE 71 June mean temperature for the UK ($^{\circ}\text{C}$), 1884–2023.

Met Office

Source: HadUK-Grid 17/05/2024 14:35

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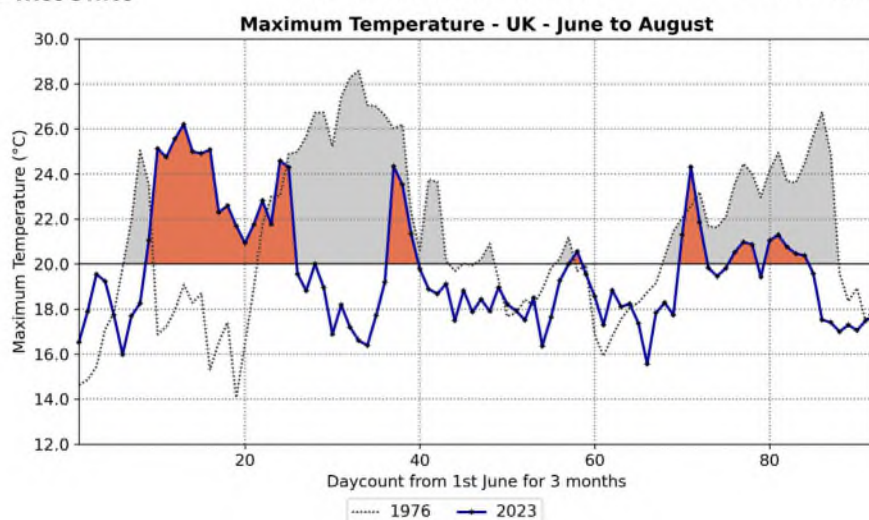


FIGURE 72 UK mean maximum temperature for summer 2023 and summer 1976 compared. The shading shows periods with an average maximum temperature above 20°C in 2023 (red) and 1976 (grey). For UK mean maximum temperature, the hottest day of June 2023 was the 13th with an average daily maximum temperature of 26.2°C .

Met Office

Source: HadUK-Grid and HadSST 05/04/2024 16:52 © Crown copyright

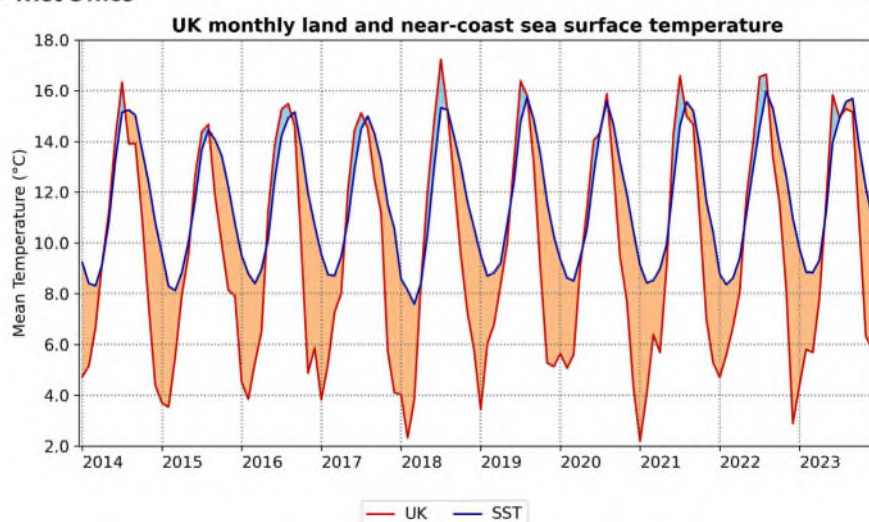


FIGURE 73 UK monthly mean temperature over land and monthly mean sea surface temperature (SST) across near-coastal waters around the UK ($^{\circ}\text{C}$) for the most recent decade 2014–2023 as actual values. The difference between the two series is shaded pale red where UK near-coast SST is higher than UK air temperature over land, and pale blue where it is lower.

FIGURE 74 UK monthly mean temperature over land and monthly mean sea surface temperature (SST) across near-coastal waters around the UK for the most recent decade 2014–2023 as anomalies relative to the 1961–1990 monthly average ($^{\circ}\text{C}$).

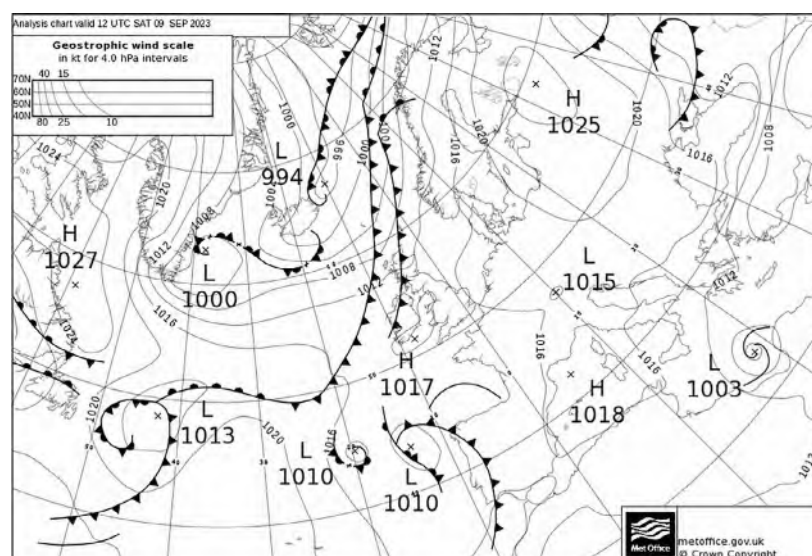
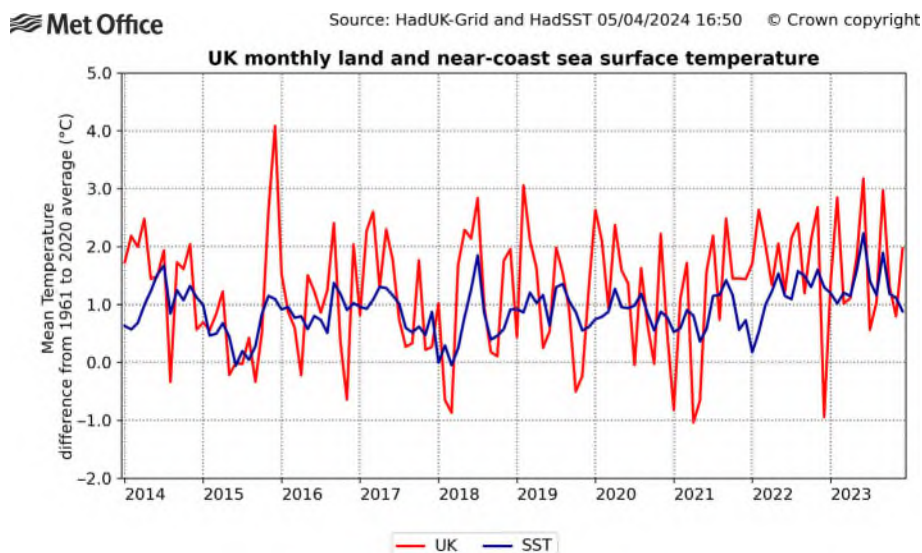


FIGURE 75 Analysis chart at 1200 UTC 9 September 2023.

years like 2022 or 2023 should not be regarded as unusual and will be increasingly likely in coming decades. By 2100, under an intermediate scenario, many if not most years will be as warm and some potentially much warmer.

8.2 | Rainfall

Figure 68 similarly plots annual rainfall for the UK from 1836 to 2023 alongside UK climate projections (UKCP) from 1961 to 2100. As for Figure 67, this figure includes the same RCP 4.5 intermediate pathway scenario in grey and green, with other scenarios included, projected to 2100. Rainfall is a highly complex variable and, in the context of future climate change, the annual mean

rainfall will mask many potential aspects of future changes—for example, changes in the distribution of rainfall through the year (e.g., winter rainfall increasing compared with summer rainfall decreasing) or changes in dry periods, or changes in rainfall intensity in wet weather. In terms of water resources, additional factors will add still further complexity, for example, a dependency not just on rainfall but also on evaporation rates.

All projections show a slight increase but, in contrast to temperature, there is almost no difference between the 50th percentile by 2100 between the four scenarios RCP 2.6, 4.5, 6.0 and 8.5, with the difference between these scenarios being an increased variance for the higher emission scenarios. The other major difference when compared with temperature is the range of 5th to 95th percentiles by 2100 is still within that of the observ

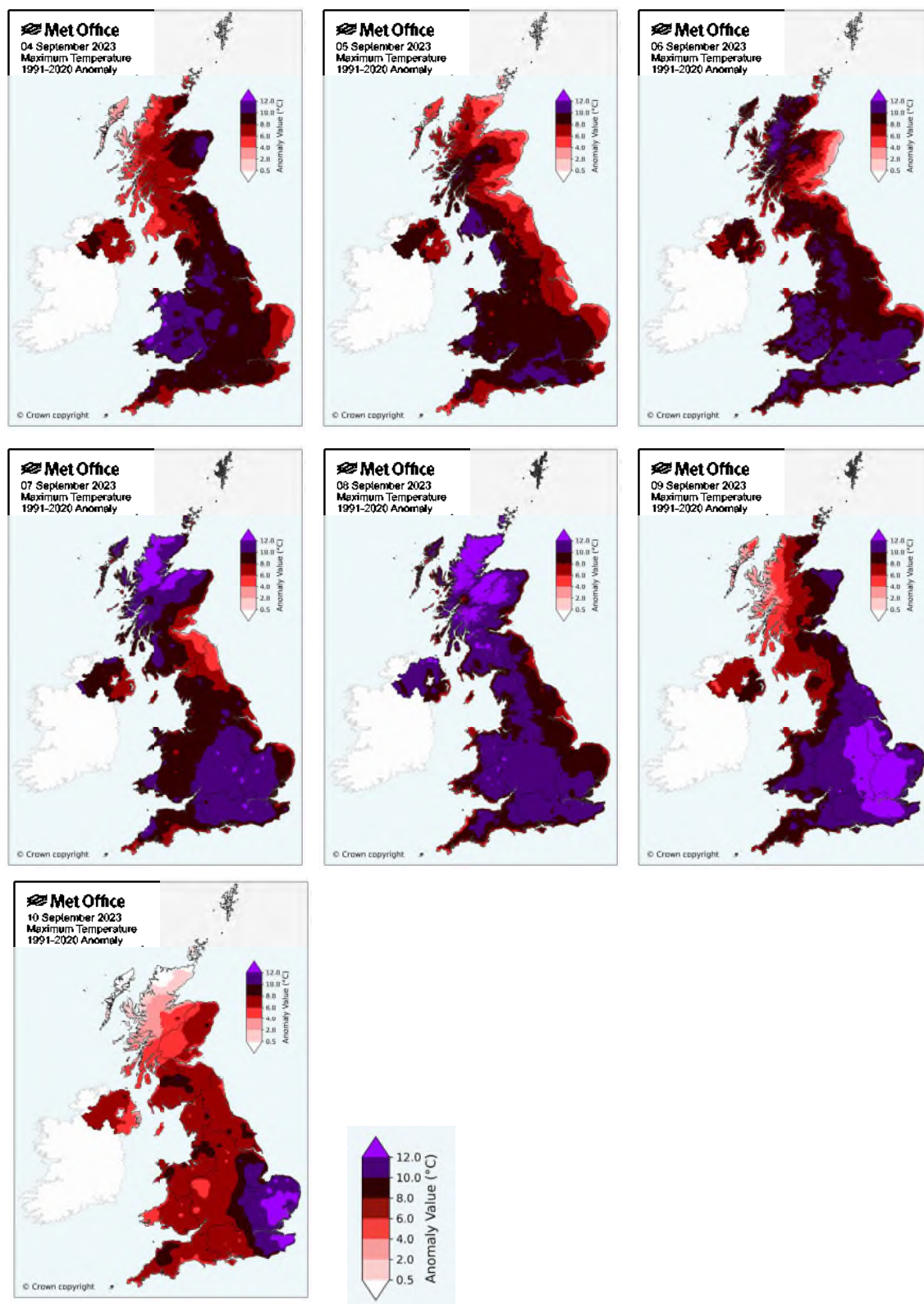
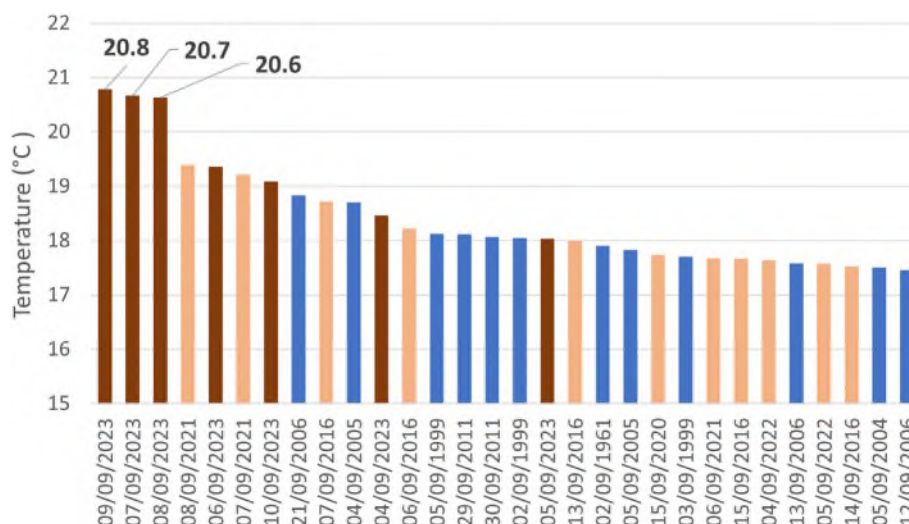


FIGURE 76 The hottest days of September 2023: daily maximum temperature anomalies (°C) relative to the 1991–2020 September average for the week of 4–10 September.

FIGURE 77 UK daily mean temperature ($^{\circ}\text{C}$) for the 30 hottest days of September from 1960 to 2023, with bars shaded dark brown occurring in 2023, bars shaded pale orange other years in the most recent decade 2014–2023 and bars shaded blue earlier years.



even for the highest emissions scenario RCP 8.5 (i.e., the UK's wettest year and driest years, 1872 and 1855, lie outside this range). This reflects the very much smaller signal to noise ratio in rainfall compared with that for temperature (i.e., much greater annual variability relative to the long term increase in the trend). For this same reason, identifying a trend in the UK annual mean rainfall observations is less straightforward than for temperature. By 2100, the RCP 4.5 50th percentile is virtually unchanged from the 1991–2020 mean with an increase of 1%.

9 | SIGNIFICANT WEATHER EVENTS

This section describes notable weather events which occurred during 2023. The choice of event is determined by the National Climate Information Centre based on our many years' collective experience of monitoring the UK's climate, broadly taking into account a combination of spatial extent, severity and duration and any associated impacts. It does not represent a comprehensive list of all impactful weather affecting the UK during the year, which may be mentioned elsewhere in the report. A discussion of notable and named storms for 2023 is also included in the Section 5 of this report.

9.1 | Record warm June

June was a fine, warm and settled month across the UK. Pressure was higher than normal, with Atlantic weather fronts mostly blocked and an anomalous south-easterly flow at high level (Figure 69). Figure 70 shows daily maximum temperature anomalies for the week of 10th to 16th, and the 24th and 25th June 2023 relative to

the June 1991–2020 average. The highest anomalies during the week of the 10th, exceeding 12°C , were mostly in the west and north, with cooler conditions further east due to easterly winds off the North Sea—for example, 29.9°C at Crosby, Merseyside compared with 17.7°C at Donna Nook, Lincolnshire on the 13th. The 24th and 25th were also very warm (Figure 70). The heat and humidity led to outbreaks of thunderstorms at times.

The UK recorded its warmest June in the series from 1884 by a margin of over 0.9°C (Figure 71) and it was the warmest June across all four nations. The likelihood of a UK June mean temperature exceeding 14.9°C , the previous UK June temperature record (set in Junes of 1940 and 1976) has at least doubled (comparing 1991–2020 to 1925–1955, the 30-year period centred on 1940) with a $\sim 3\%$ chance of being exceeded in the current climate (Lowe and Wallace, 2023).

Figure 72 compares UK average daily maximum temperatures for summer 2023 and summer 1976. The main heatwave of June 2023 occurred much earlier in the month, whereas in 1976 it started much later but then extended to the second half of July—with a further heatwave in August. The highest June temperature in 2023 (32.2°C) was relatively modest compared with June 1976 (35.6°C).

In the CET series from 1659, the Junes of 1846, 1676, 1826 and 1822 were all warmer than 2023 (but, similar to the UK series, neither 1976 nor 1940) (1976, 1846 and 1822 were all warmer in the Oxford Radcliffe series from 1814)—emphasizing the importance of multi-century series for long term context.

A significant contributing factor for this event was a major North Atlantic marine heatwave, which brought record-breaking temperatures in the North Atlantic and around the UK. A severe marine heatwave was de

in mid-June, which further amplified temperatures over the UK land. This may have contributed a 0.6°C increase in the UK mean temperature for June (Berthou et al., 2023). Figures 73 and 74 show monthly UK air temperature over land and near-coast SST averaged over the most recent decade 2014–2023 as actuals and anomalies relative to the 1961–1990 monthly average. See Appendix A11 for details of the UK near-coast SST series. UK near-coast SST is warmer on average than UK land (1991–2020 average 11.4°C compared with 9.1°C), with a lag in the annual temperature cycle compared with UK land and the maximum difference in early winter of around $+5^{\circ}\text{C}$. The variability of UK near-coast SST

monthly anomalies is less than half that of UK land. In the most recent decade there were 13 months with the UK mean temperature below the 1961–1990 monthly average, compared with only 3 months for near-coast SST.

The June 2023 near-coast SST monthly anomaly ($+2.2^{\circ}\text{C}$) was the highest of any month in the most recent decade, coinciding with the highest June UK land anomaly. While there are some other months in the most recent decade where peaks in anomalies coincide (e.g., July 2018 and September 2023), others do not and overall these monthly anomaly series are only weakly correlated (R^2 0.24).

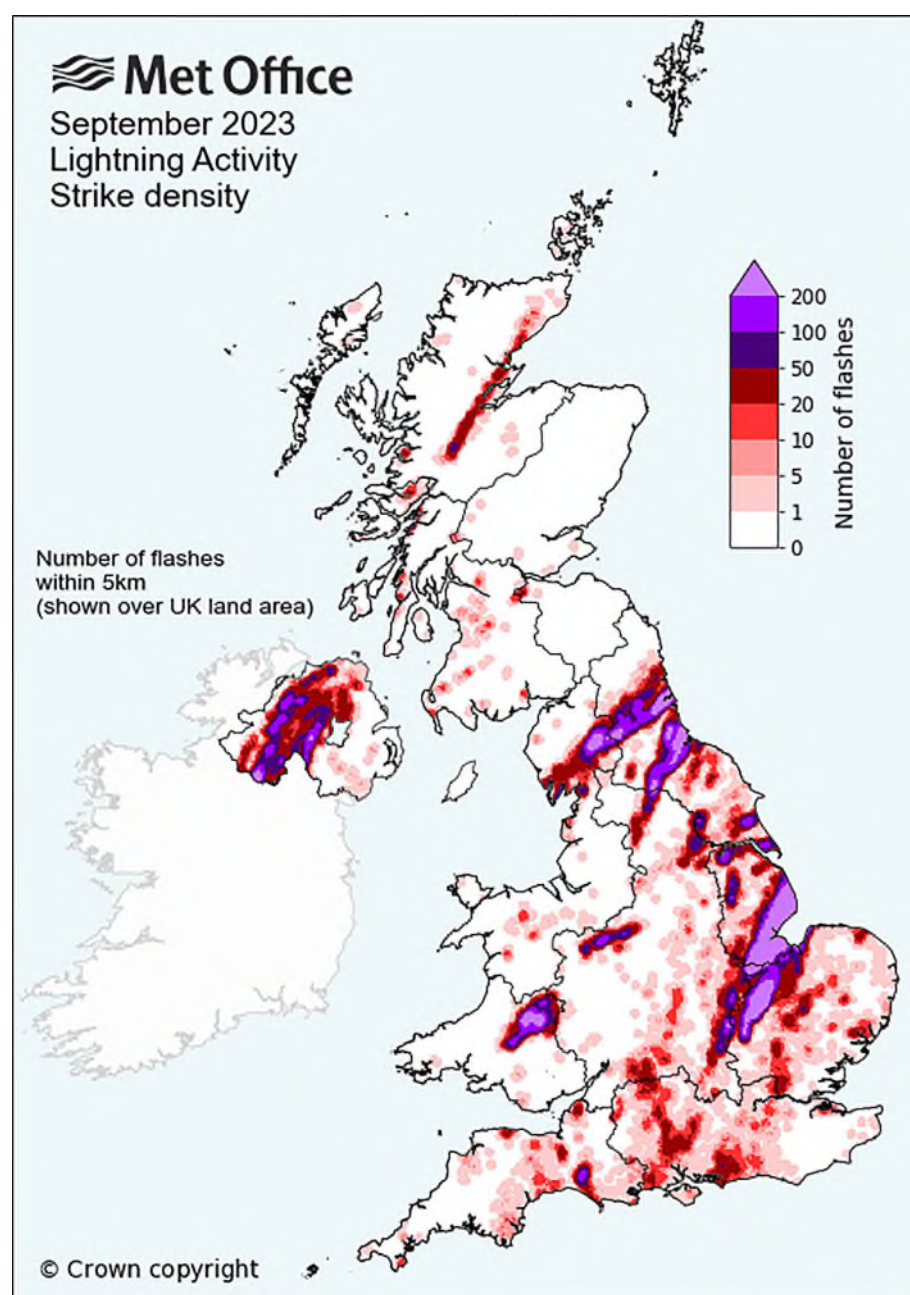


FIGURE 78 Number of lightning flashes recorded across the UK (within a distance of 5 km) during September 2023. Data are from the Met Office operational long range lightning location system LEELA (Lightning Electromagnetic Emission Location by Arrival time difference) consisting of 10 sensors located across Europe. 236

FIGURE 79 UK rain-radar image at 1700 UTC 10 September 2023. Areas in white indicate rainfall rates exceeding 32 mm/h. These locations align with the areas of most dense recorded lightning flashes as shown in Figure 78.

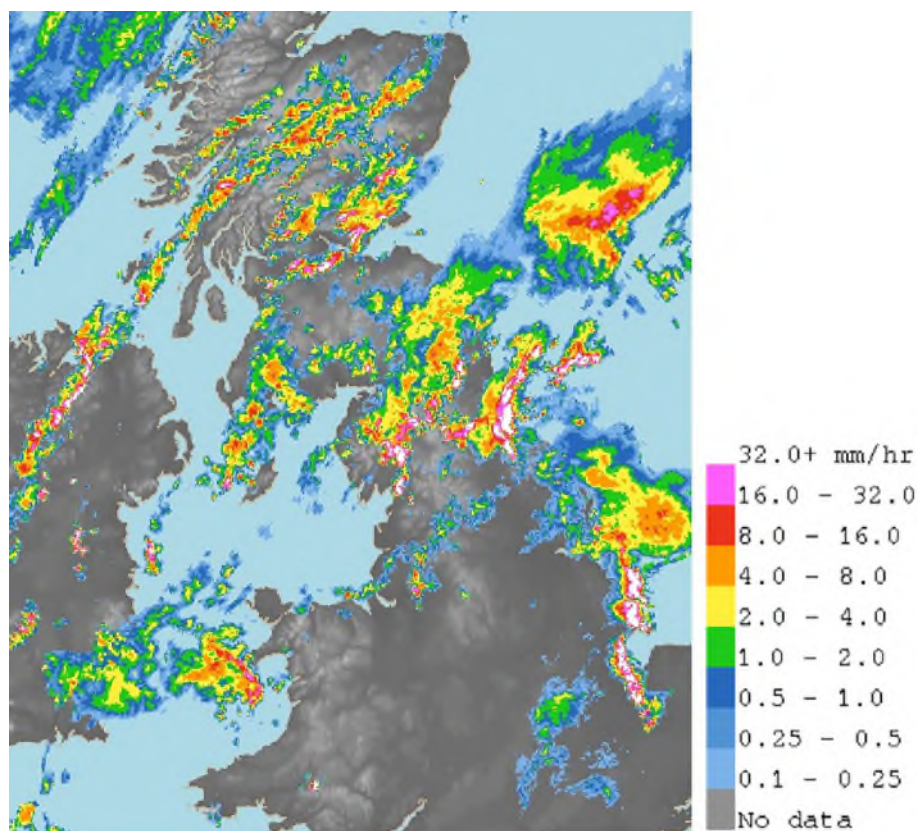
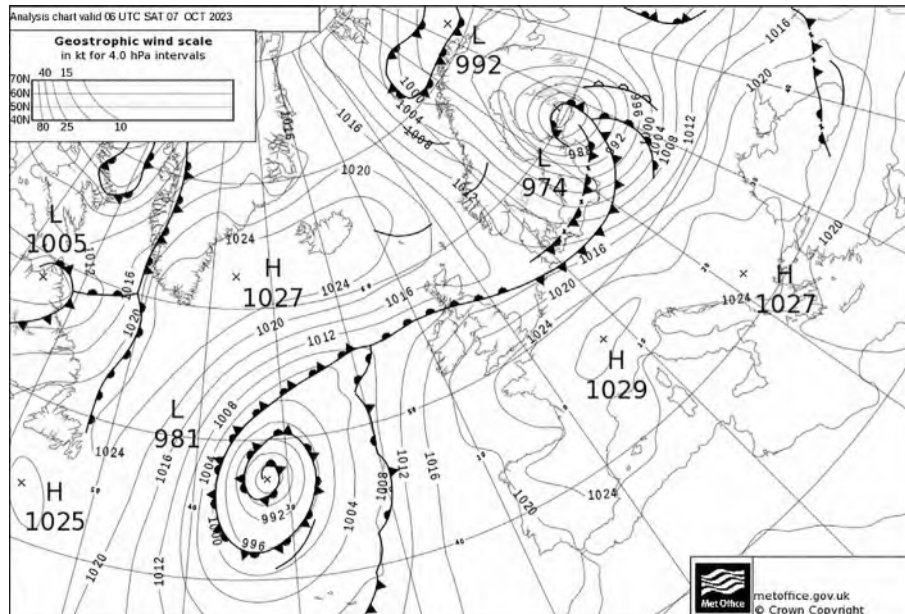


FIGURE 80 Analysis chart at 0600 UTC 7 October 2023.



9.2 | September heatwave

In early September, the jet stream shifted to the north allowing high pressure to build across the UK with a light southerly flow bringing a hot Tropical Continental Air mass (Figure 75). This pattern is fairly typical of heatwave conditions for the UK, and

resulted in hot, dry, sunny weather. Former tropical cyclone Franklin amplified this build-up of high pressure as it moved north-east into the North Atlantic early in the month.

Temperatures exceeded 30°C somewhere in England each day of the week of Monday 4 to Sunday 10 September, and in west Wales on the 4th.

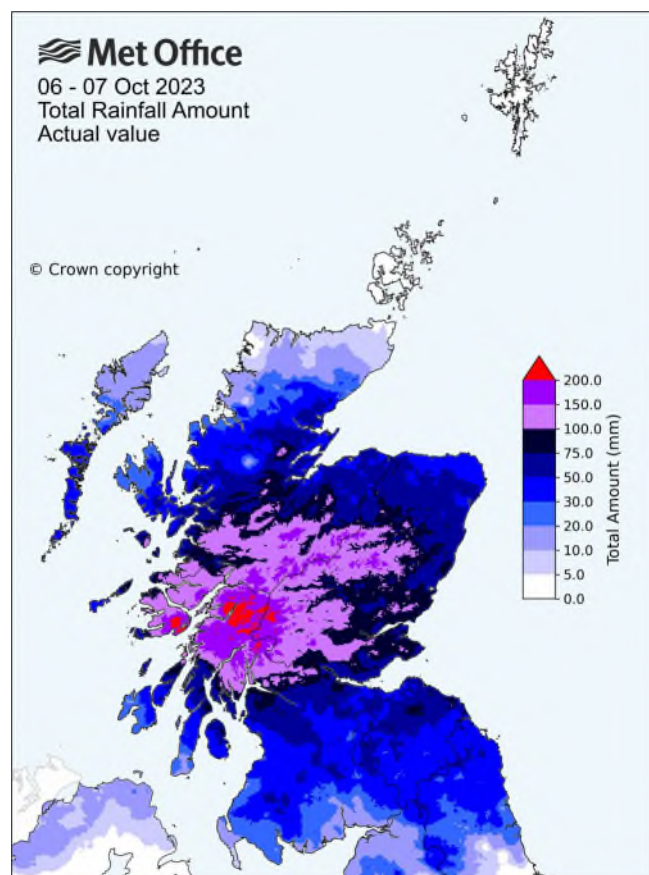


FIGURE 81 Daily rainfall totals (mm) across Scotland 6–7 October 2023.

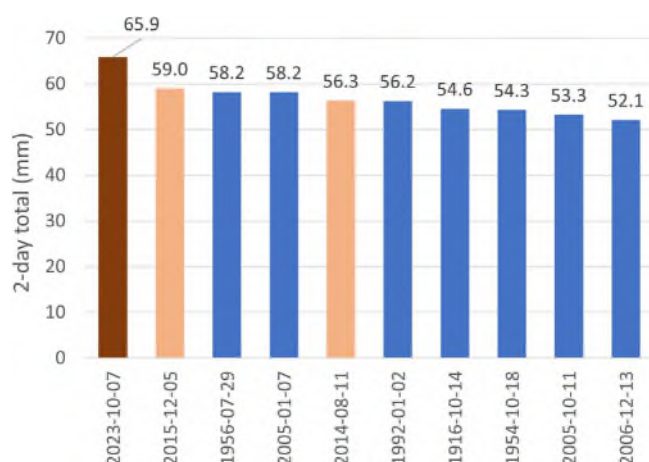


FIGURE 82 Scotland's 10 wettest independent 2-day periods on record, from 1891 to 2023. The date is the end day. Bars shaded pale orange are other years in the most recent decade 2014–2023 and bars shaded blue are earlier years.

shows daily maximum temperature anomalies relative to the 1991–2020 September average for this spell. On 7th and 8th, maximum temperatures across northern

Scotland reached 27°C–29°C, around 12°C above the September 1991–2020 average in this area, while a new September Northern Ireland temperature record of 28.0°C was set on 8th (Section 7.2). On 9th and 10th, maximum temperatures across south-east England reached 31°C–32°C, more than 12°C above the September average in this area including the UK's highest temperature of the year, 33.5°C on 10th—unusually late in the year (Section 7.1).

This heatwave would not have been particularly unusual had it occurred during the high summer months (July or August), but the 7-day run of 30°C in 2023 was, for September, the longest such run in the UK's observational records, exceeding the 5 days of 1929 and 1911. A number of stations with 100+ year records recorded their hottest September day, including Armagh (County Armagh), Lerwick (Shetland), Wisley (Surrey), Balmoral (Aberdeenshire), Wick Airport (Caithness), Woburn (Bedfordshire), Cranwell (Lincolnshire) and Leuchars (Fife). Stornoway Airport, Western Isles and Durham recorded their highest September temperatures since 1 September 1906, and Sheffield and Oxford since 8 September 1911.

The UK's daily mean temperature exceeded 20°C for three consecutive days from 7 to 9 September, making these the UK's three warmest September days on record by a wide margin, based on a daily series from 1960; half the UK's top-ten warmest September days in this series occurred during this spell (Figure 77). This statistic must be interpreted cautiously however because it is highly probable that one or more September days before 1960 may have been warmer for the UK overall. In particular, on 1 September 1906 the temperature exceeded 32°C as far as northern Scotland with 32.2°C at Gordon Castle, Moray and 32°C–33°C widely across England. The warmest September days in the CET daily maximum temperature series from 1878 were 1 and 2 September 1906, each more than 2°C warmer than any day in September 2023, while September 1911 was also warmer for CET $T_{\max}$. Examples like this demonstrate the importance of further data digitization to help extend the daily HadUK-Grid dataset further back before 1960 to capture more historical extremes and provide longer-term context.

UK recorded its equal-warmest September on record in the series from 1884, shared with 2006. England and Wales each recorded their warmest September on record, and it was also warmest in the September CET series from 1659. An attribution analysis by Wallace and Pirret (2023) found that a September this warm would be exceptionally unlikely in a natural climate, but with a 3% chance of reaching or exceeding it in the current

FIGURE 83 Analysis chart at 0000 UTC 20 October 2023.

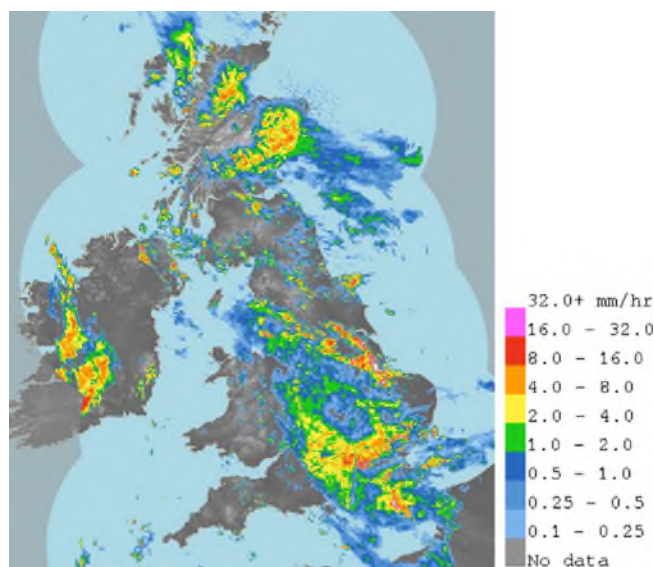
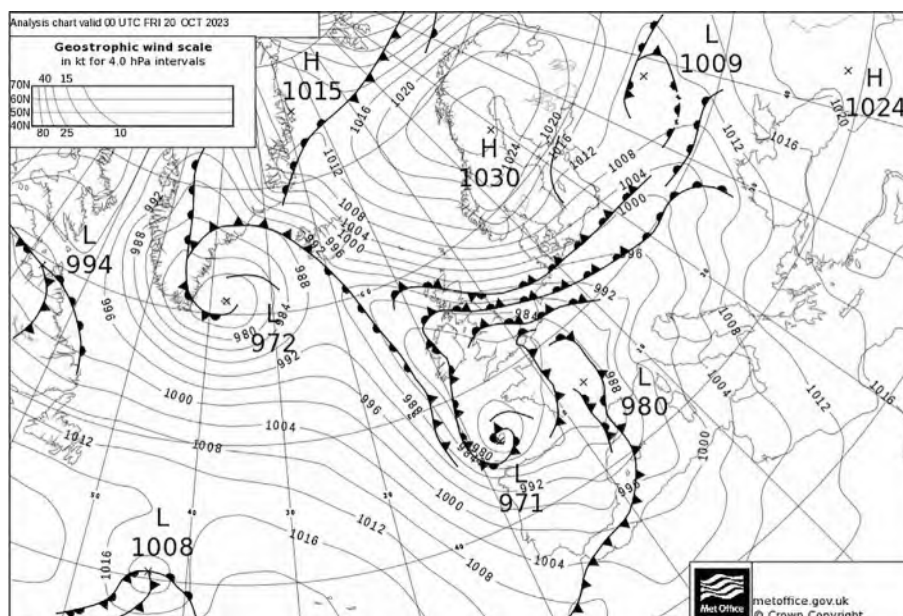


FIGURE 84 UK rain-radar image at 0000 UTC 20 October 2023.

While the right combination of factors is still needed, climate change is making such late-season warmth more likely.

The heat and humidity from this heatwave made uncomfortable conditions for the elderly and vulnerable and difficult conditions for sleeping at night. Despite the often cool and rather unsettled weather in July and August, 2023 overall saw the third highest heat-associated mortality for the UK based on a series of monitoring reports from 2016 (HSA, 2024). Of the five heat episodes identified in the HSA report in 2023, the period

from 3 to 13 September was the longest and had the highest total heat-associated mortality.

As so often happens in the UK, the heat and humidity led to some intense thunderstorms with lightning and torrential downpours. Figure 78 shows the north-easterly track of these thunderstorms. Figure 79 shows some of the more intense storms across northern and eastern England on 10 September. Several rain-gauges across Cumbria, County Durham, Tyne & Wear and Northumberland recorded hourly rainfall totals of between 20 and 30 mm/h including, for example, 29.4 mm at Harpington Hill Farm and 26.4 mm at Darlington, both County Durham. Flash flooding and lightning strikes from these storms caused significant impacts.

9.3 | Scotland's wettest 2-day period

Much of Scotland experienced widespread and prolonged rainfall from 6 to 7 October 2023 from an 'atmospheric river'—a narrow stream of moisture laden air capable of causing very high rainfall totals. Figure 80 shows the frontal system associated with this rain, marking the boundary between warm air to the south and much colder air to the north. On 7 October, daily maximum temperatures reached 25.7°C at Faversham, Kent, but only 7.7°C at Aviemore, Inverness-shire.

The wettest area was across a swathe of the southern and central Highlands, with 100–150 mm falling widely over this 2-day period (Figure 81). High rainfall totals also extended further east to Perth and Kinross, Stirling and Falkirk, Angus and Fife with over 75 mm falling at some

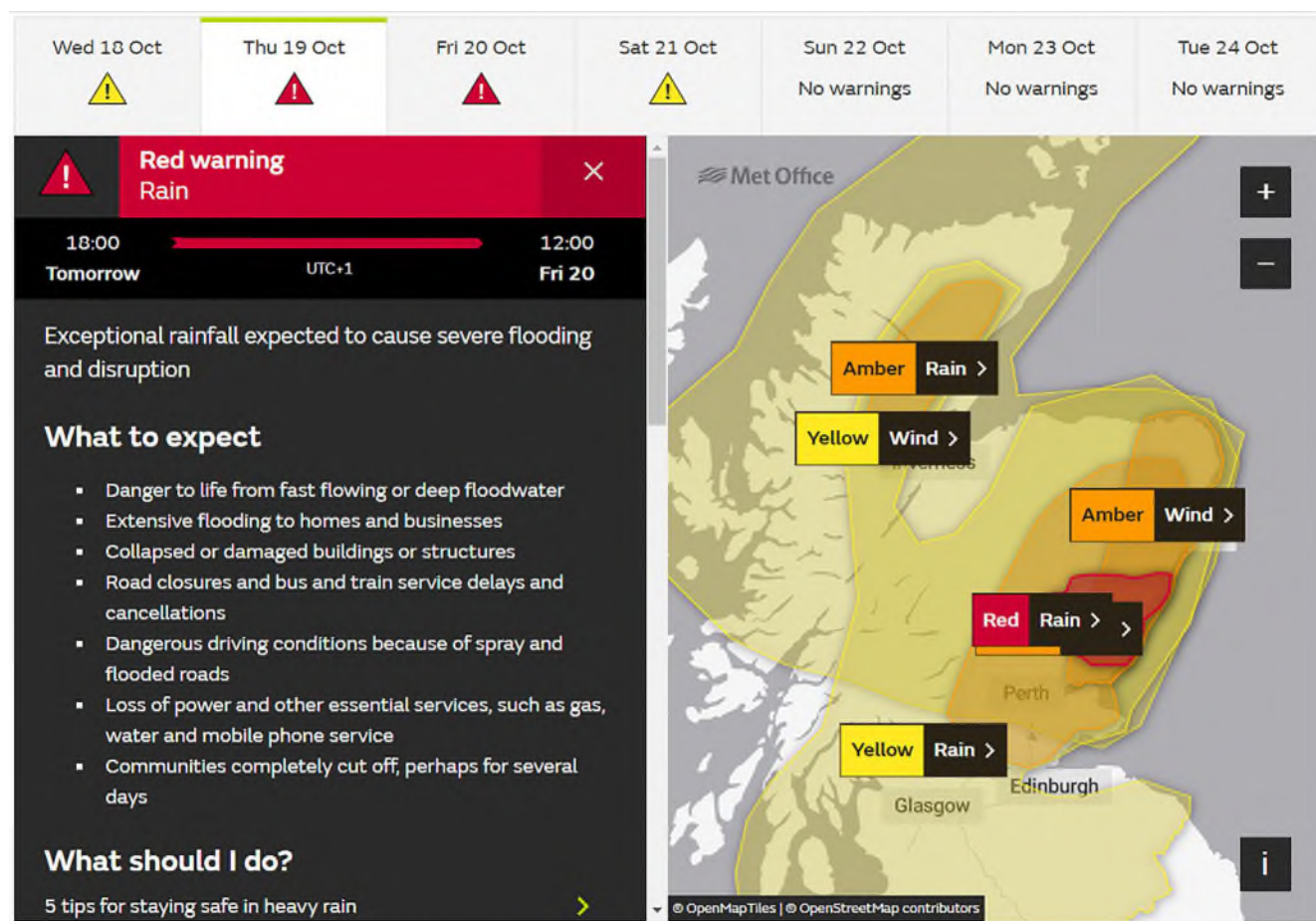


FIGURE 85 Met Office red warning for rain issued for parts of eastern Scotland for 1800 BST Thursday 19 October to 1200 BST Friday 20 October 2023. The map also shows amber and yellow warning areas for both rain and wind.

locations near the East Coast. In the wettest locations rainfall totals reached 150–200 mm or more, with the highest total 217 mm, 121% of the 1991–2020 October average at Allt na Lairige, Argyll (328 masl), near the head of Loch Fyne.

The two-day rainfall total averaged across the whole of Scotland for 6 and 7 October 2023 was 65.9 mm, making this the wettest two-day period on record for Scotland in a series from 1891, ahead of 4–5 December 2015 (storm Desmond) and 28 to 29 July 1956 (Figure 82) (data before 1961 are based on a smaller number of stations due to more limited data availability, see Appendix A2). The Scotland rainfall totals for these two consecutive days 6th and 7th were 32.6 and 31.5 mm, respectively—each independently within Scotland's top-30 wettest days in this series and the wettest days in this series since 3 October 2020. Six of Scotland's 10 wettest 2-day periods on record have occurred in the 21st century, including three in the most recent decade.

Inevitably for such extreme rainfall, there were significant impacts across Scotland. In Argyll, the A83 was closed due to a landslide with 10 people airlifted from

their vehicles, while several other major trunk roads were also closed. Rail services across Scotland were severely affected, and at Inverary, bales of silage were washed away by the River Aray. Scottish farmers reported the loss of several million pounds worth of unharvested vegetables damaged by floodwaters. Over 50 flood warnings were issued across Scotland, including severe flood warnings for parts of Aviemore and Perth.

9.4 | Storm Babet

Storm Babet brought exceptional rainfall to parts of eastern Scotland, while heavy, persistent and widespread rain also affected much of England, Wales and Northern Ireland. Babet tracked south to north as it approached the UK, an unusual direction, allowing the system to pick up additional moisture as it crossed the Bay of Biscay. The rain-bearing fronts remained stationary across eastern Scotland for a prolonged period, being unable to clear north-east due to an area of high pressure 240

Scandinavia (Figures 83 and 84). The Met Office issued two red warnings for persistent heavy rain across eastern Scotland for 19th–20th, and 21st October, with several other amber warnings for rain and wind covering

Scotland, Northern Ireland, Wales and parts of northern England (Figure 85). The last time the Met Office issued a red warning for rain was from storm Dennis in mid-February 2020, covering parts of South Wales.

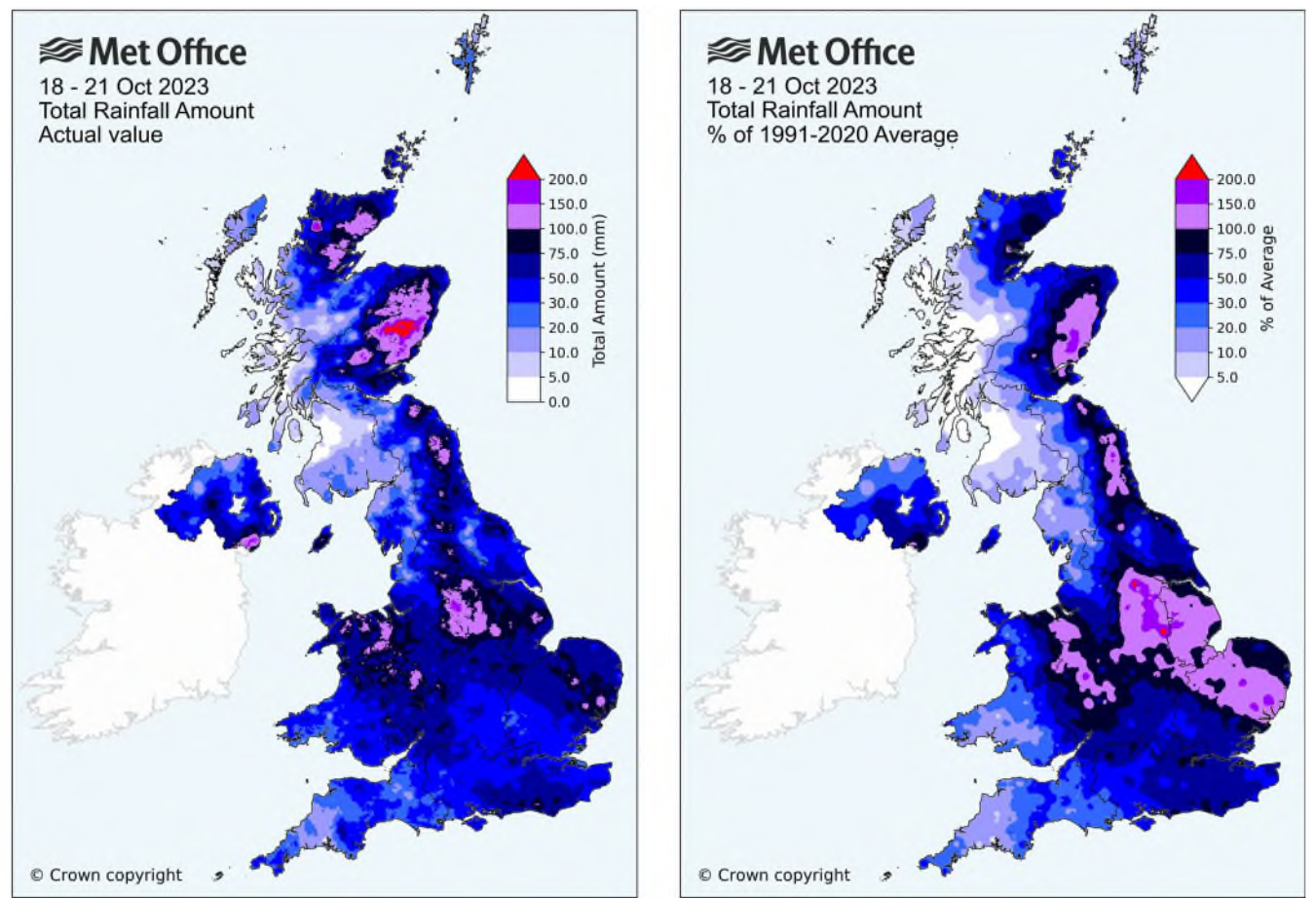


FIGURE 86 Cumulative UK rainfall 18–21 October 2023 as actual value (mm, a) and percentage of October 1991–2020 monthly average (b).

TABLE 16 Highest station rainfall totals for 18–21 October 2023 across Eastern Scotland (mm), and percentage of October 1991–2020 monthly average rainfall.

Station	County	Elevation (masl)	Total (mm)	October average (mm)	% of average
Stonyford	Aberdeenshire	195	232.8	144.2	161.5
Waterside, Glen Esk	Angus	185	203.8	131.7	154.8
Durris	Kincardineshire	107	188.3	124.9	150.7
Fettercaim, Glensaugh No 2	Kincardineshire	171	186.1	133.1	139.9
Charr	Kincardineshire	251	184.8	143.5	128.8
Invermark Bridge	Angus	255	178.4	142.2	125.5
Forfar S Wks	Angus	61	164.4	90.9	180.9
Mongour	Kincardineshire	315	158.8	139.6	113.7
Spittal of Glenmuick No 2	Aberdeenshire	407	147.2	148.0	99.5
Balconnel	Angus	149	145.5	102.7	141.7

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Figure 86 shows the accumulated daily rainfall for the 4-day period 18–21 October 2023 from storm Babet as actual totals in mm (left) and percentage of the October whole-month average (right). Large swathes of the UK received over 50 mm of rain, with 75–100 mm widely

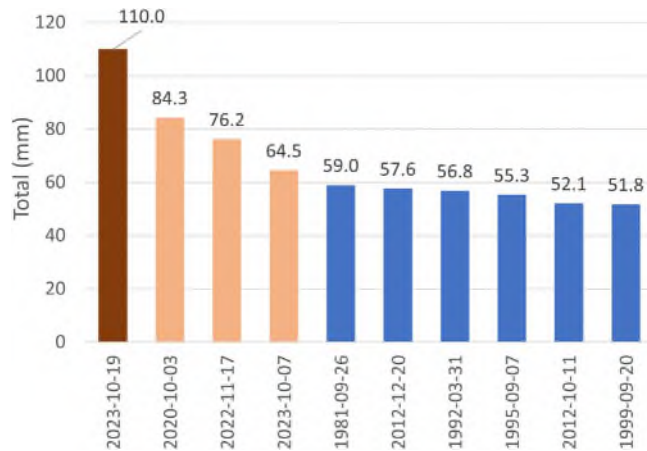


FIGURE 87 The 10 wettest days for the county series of Angus from 1961 to 2023. Bars shaded pale orange are other years in the most recent decade 2014–2023 and bars shaded blue are earlier. Dates before 1961 are excluded from this analysis due to the large reduction in number of stations used in the HadUK-Grid dataset which will affect daily rainfall statistics for county-sized areas before this date (see Appendix A2).

across eastern Scotland, the Pennines, North Wales, the Mourne Mountains of Northern Ireland and parts of the West Midlands, East Anglia and south-east England, and over 100 mm in the wetter locations (some places having over 150 mm). The gridding process aims to take topographical influences into account, and this shows a significant area of eastern Scotland receiving over 200 mm (shaded in red). Much of the Midlands, East Anglia, south Pennines, Northumberland and eastern Scotland received rainfall exceeding the whole-month average, with significantly more than this in some areas.

Table 16 lists the highest station totals from 18 to 21 October (0900 UTC 18th to 0900 UTC 22nd) from this event. The wettest locations in eastern Scotland recorded totals for the 3 day period of 150–200 mm, with two rain-gauges exceeding 200 mm. The wettest day of this period was 19th October, with some exceptional daily totals including 173.4 mm at Stonyford (the highest daily total of 2023), 168.4 mm at Waterside, Glen Esk and 151.6 mm at Invermark Bridge (all in Angus) and 131.8 mm at Charr, Kincardineshire. Rainfall totals were many times higher inland than they were a few tens of km away on the coast due to extreme orographic enhancement in the unusual south-easterly flow.

19 October 2023 was, by a wide margin, the wettest day for the county of Angus (coinciding with the red warning area) in the series from 1961, while 7 October

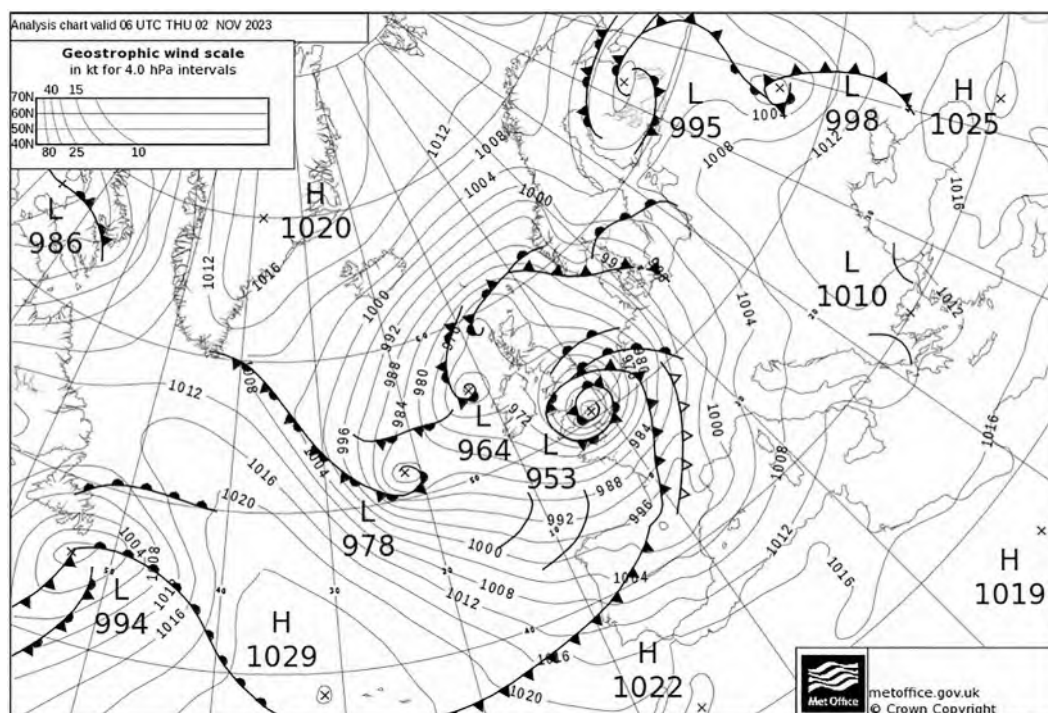


FIGURE 88 Analysis chart at 0600 UTC 2 November 2023.

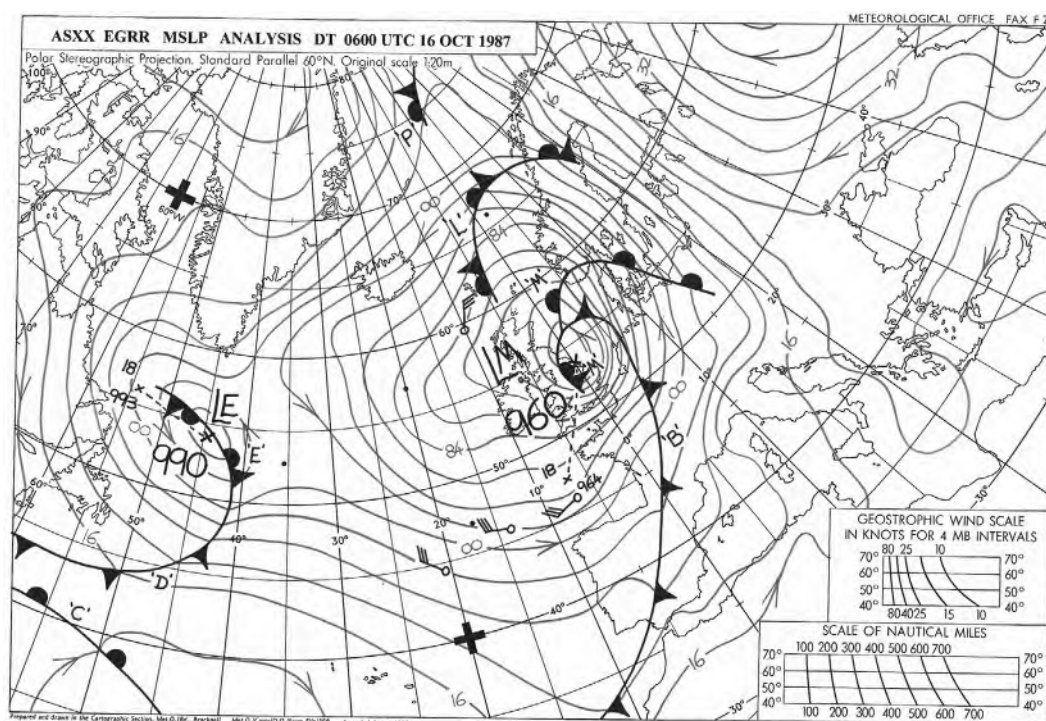


FIGURE 89 Analysis chart at 0600 UTC 16 October 1987.

(less than a fortnight previously) was the fourth wettest day. Four of the 10 wettest days on record for this county have occurred in the last 5 years (Figure 87). These statistics in the observations are illustrative of the expected increases in rainfall extremes as the UK's climate continues to warm. (Data before 1961 are not shown due to the limited number of stations at county-level.)

For England and Wales overall, the 3-day period 18 to 20 October 2023 was the third-wettest independent (non-overlapping) 3-day period on record in a daily series from 1891, with 53.0 mm of rain falling and the only wetter periods on record being 28–30 October 2000 (60.0 mm) and 23–25 September 2012 (54.8 mm). Nine of the 10 wettest independent 3-day periods on record for England and Wales in this series have been associated with large-scale autumn or winter low pressure systems, with six of these 10 in October (the event in late August 1986 was associated with ex-hurricane Charley). Many stations recorded their wettest October day during this event, for example, 61.4 mm at Sheffield on 20th (139-year record), 46.8 mm at Waddington, Lincolnshire on 19th (76 years), 48.2 mm at Wattisham, Suffolk on 19th (63 years).

A prolonged widespread heavy rain event such as this will inevitably result in significant flood impacts. Multiple severe flood warnings were issued by the Environment Agency (EA) and the Scottish Environment Protection Agency (SEPA). At least seven people were

reported to have died as a result of the storm (although some of these were from wind impacts rather than flooding). In Scotland, hundreds of homes and businesses were inundated with the town of Brechin severely affected after defences were overtopped by the river South Esk. The main A90 trunk road was closed between Forfar and Brechin after storm Babet damaged a bridge, and schools across Angus were closed. Scottish farmers were reported to have lost crops, and some sheep were also washed away by floodwater.

Over 1000 homes in England were also affected by flooding across Yorkshire, the East Midlands and the Humber area. In Chesterfield (Derbyshire), around 400 homes were flooded while 500 homes were evacuated in Retford, Nottinghamshire and widespread flooding affected other locations such as Stafford and Wrexham. Derby's Museum of Making was flooded, and a major incident declared in Suffolk. Rail services on the East Coast were severely affected due to flooded lines.

9.5 | Storm Ciarán

Across most of the UK, wind speeds from Storm Ciarán on 1–2 November 2023 were fairly typical for a major Atlantic storm. However, further south, exceptionally severe and damaging winds on the southern flank of this storm affected northern France

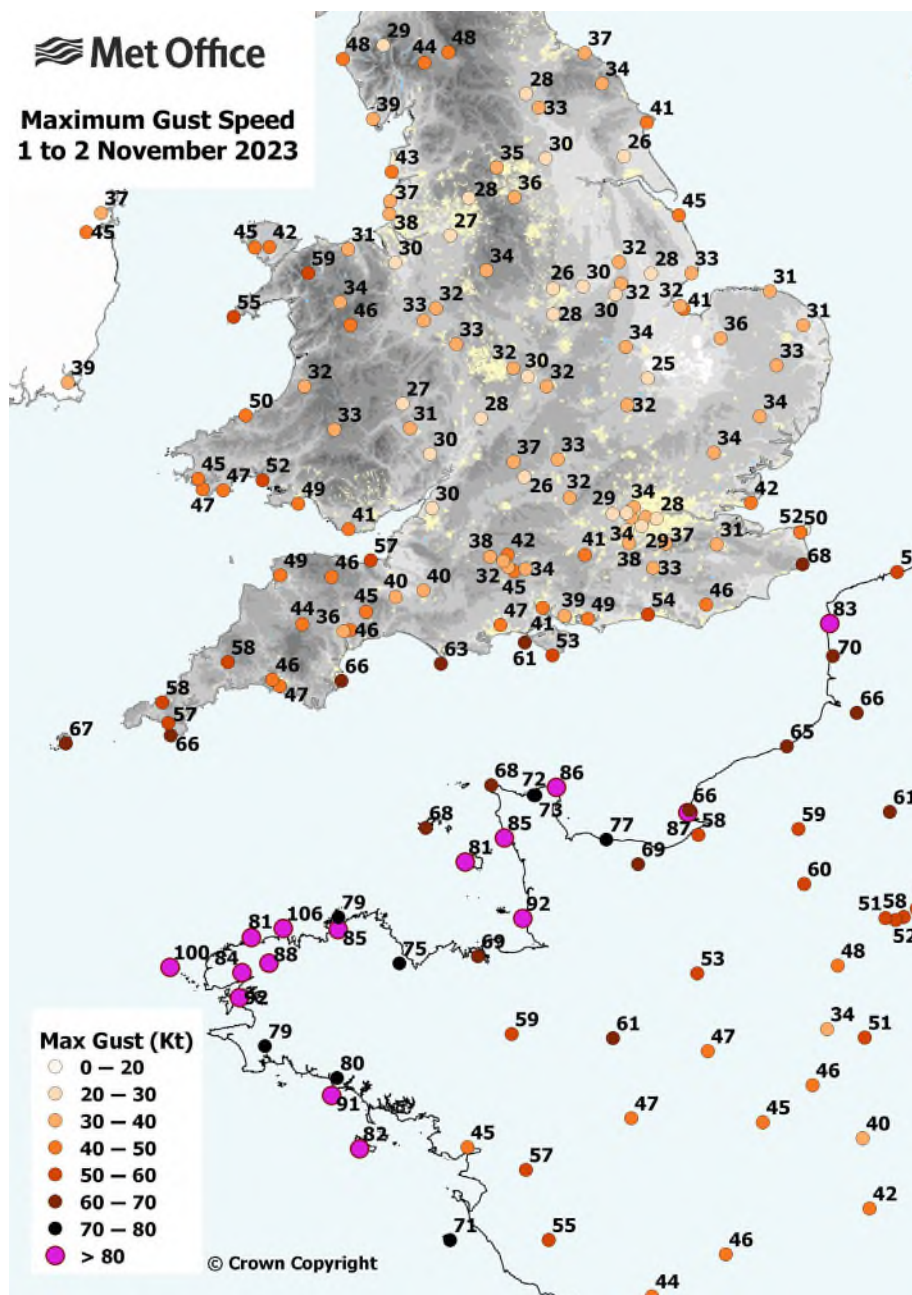


FIGURE 90 Maximum gust speeds (Kt) across the southern half of the UK and northern France 1–2 November 2023. The grey shades over the UK show underlying topography.

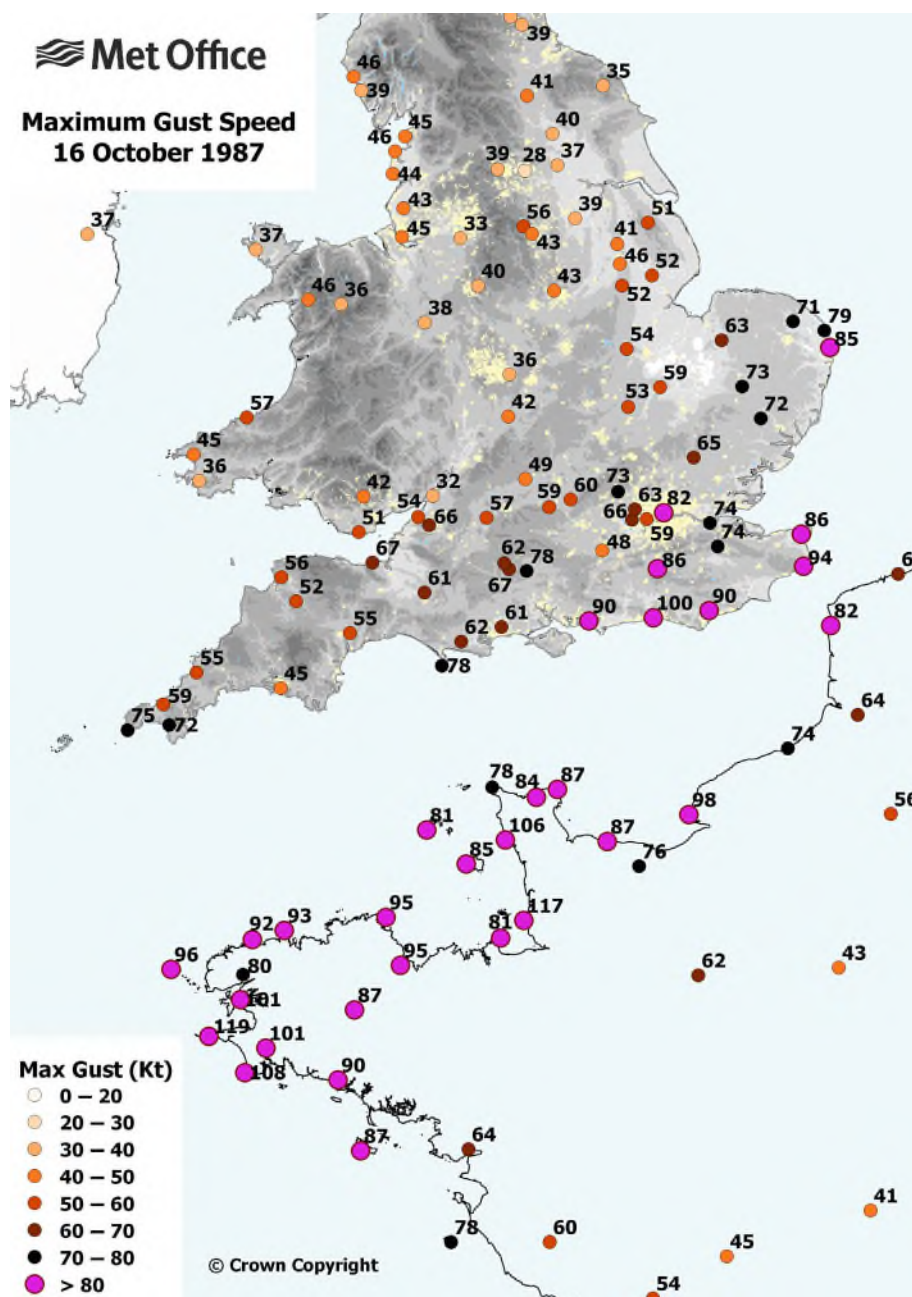
Channel Islands. In this area, maximum gust speeds were comparable in severity with those experienced in the south-east of England during the ‘Great Storm’ of 16 October 1987.

Figures 88 and 89 compare the analysis charts for storm Ciarán and 16 October 1987 illustrating the similarity between these two events. Similar to the ‘Great Storm’, Ciarán underwent ‘explosive cyclogenesis’—rapidly deepening and gaining strength as it approached the UK from the south-west. The central pressure dropped by 28 hPa in 24 hours, falling below 955 hPa at several stations on the south coast. St Catherine’s Point (Isle of Wight) and Culdrose

(Cornwall) each recorded 953.6 hPa, England’s lowest November pressure on record, lower than the previous record in 1916. Wales also recorded its lowest November pressure.

In the Channel Islands, Jersey Airport recorded a gust of 81 Kt (93 mph), the highest gust since the ‘Great Storm’ of 16 October 1987. Wind gusts on the Atlantic and Channel coasts of Brittany and Normandy exceeded 80 Kt (92 mph), in places over 90 Kt (104 mph). Two stations in Brittany reached 100 Kt (115 mph) including 106 Kt (122 mph) at Ile de Batz (Figure 90). Winds of this severity are indicative of an exceptionally severe storm, comparable to those experienced in the south-

FIGURE 91 Maximum gust speeds (Kt) across the southern half of the UK and northern France 16 October 1987. The grey shades over the UK show underlying topography. Values across northern France have been taken from Figure 10 of Burt and Mansfield (1988) due to problems with how historical maximum gust speed data for overseas stations are stored for this period in the Met Office MIDAS database.



England from the ‘Great Storm’ of 16 October 1987—where a gust of 100 Kt (115 mph) was recorded at Shorehamby-Sea, West Sussex (Figure 91). However, overall the ‘Great Storm’ of 1987 was much more severe; gusts for example, reaching 119 Kt (137 mph) at Pointe du Raz, Brittany.

The Channel Islands and northern France experienced the worst weather impacts, with numerous fallen trees and significant damage to buildings, with a tornado and large hail affecting eastern parts of Jersey at the height of the storm (Knightley et al., 2024). Jersey’s Met Service issued a red weather warning and a major incident was declared. In northern France, a reported

1.2 million people were without electricity, and across western Europe more widely, heavy rain and flooding linked to storm Ciarán reportedly led to at least 13 deaths.

If Ciarán had tracked 150 km further north, impacts across the UK would have been much worse: this early in the autumn many trees were still in leaf with saturated ground also increasing the risk of uprooting. However, since October 1987, major advances in the ability to forecast severe storms have taken place, with greatly improved communications of warnings (including the storm naming scheme) allowing mitigating actions to be taken well in advance.

Even so, the storm brought significant impacts to the UK. The port of Dover was temporarily closed, the Great Western Main line closed and many commuters advised

to work from home. Hundreds of schools were shut and almost 150,000 homes left without power. Large waves battered the South Coast, several vehicles were swept into the sea and a major incident was declared in Hampshire and the Isle of Wight. At West Bay in Dorset, a section of cliff collapsed into the sea, and in Surrey a power outage at three water treatment plants left thousands without a water supply.

9.6 | Named storms September to December

The sequence of named storms from September to December resulted in an exceptionally wet end to the year. Many parts of eastern England, eastern Scotland and the south-east of Northern Ireland recorded over 150% of the 1991–2020 average rainfall in this four-month period, with the wettest areas in eastern Scotland exceeding 200% (Figure 92). Figure 93 shows UK average daily rainfall through this period, illustrating the contributions from named storms Agnes to Gerrit and the almost continuously unsettled nature of the weather with only a brief respite during the colder spell from late November to early December. Figures 94 (a and b) show rainfall accumulations through this period in the wettest areas—the counties of Angus and Nottinghamshire—with the major step after mid-October from storm Babet. Each of these counties recorded their wettest September to December in the monthly series from 1836, for Angus by a margin of 130 mm (more than the December long term average). The UK recorded its wettest September to December since 2000 (Figure 95). Autumn 2000 brought the most serious and extensive flood event across

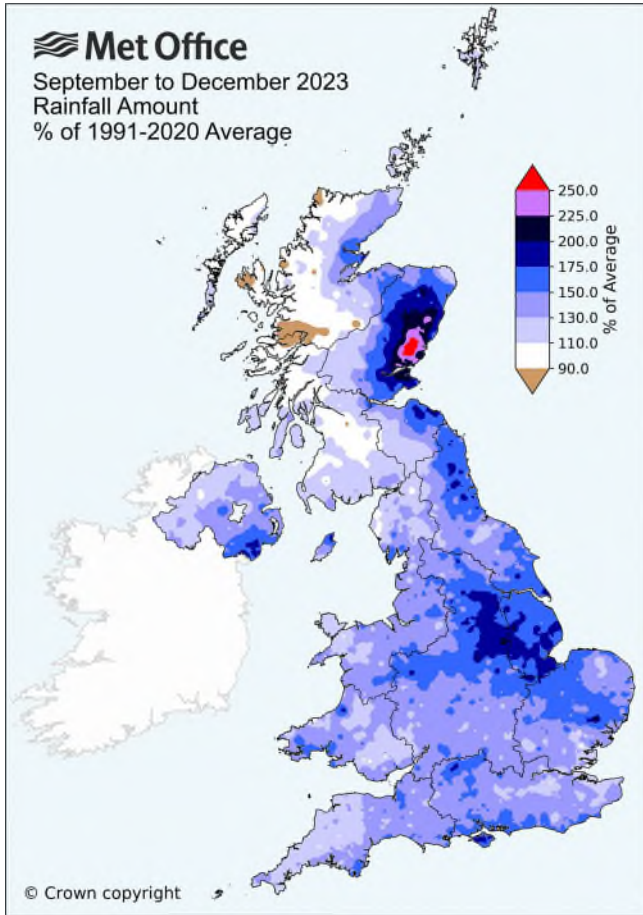


FIGURE 92 UK rainfall for September to December 2023 as a percentage of the September to December 1991–2020 average.

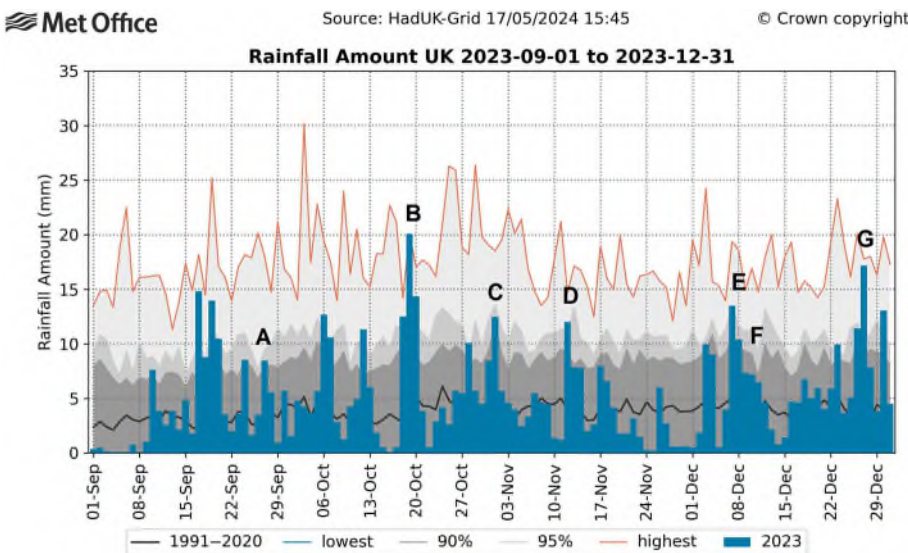


FIGURE 93 UK daily rainfall September to December 2023 (mm, blue bars). The black line shows the 1991–2020 average for each calendar day based on 1991–2020, the grey shaded areas percentiles and red line highest daily value based on the daily series 1891–2023. Named storms are labelled: Agnes (27–28 September), Babet (18–21 September), Ciaran (1–2 November), Debi (13 November), Elin (9 December), Fergus (10 December) and Gerrit (27–28 December).

FIGURE 94 Daily rainfall accumulations from September to December 2023 for the counties of Angus and Nottinghamshire (mm, blue shaded area). The black line shows the 1991–2020 average daily accumulation, the grey shaded areas percentiles and red and blue lines the highest and lowest daily accumulations based on the period 1961–2023.

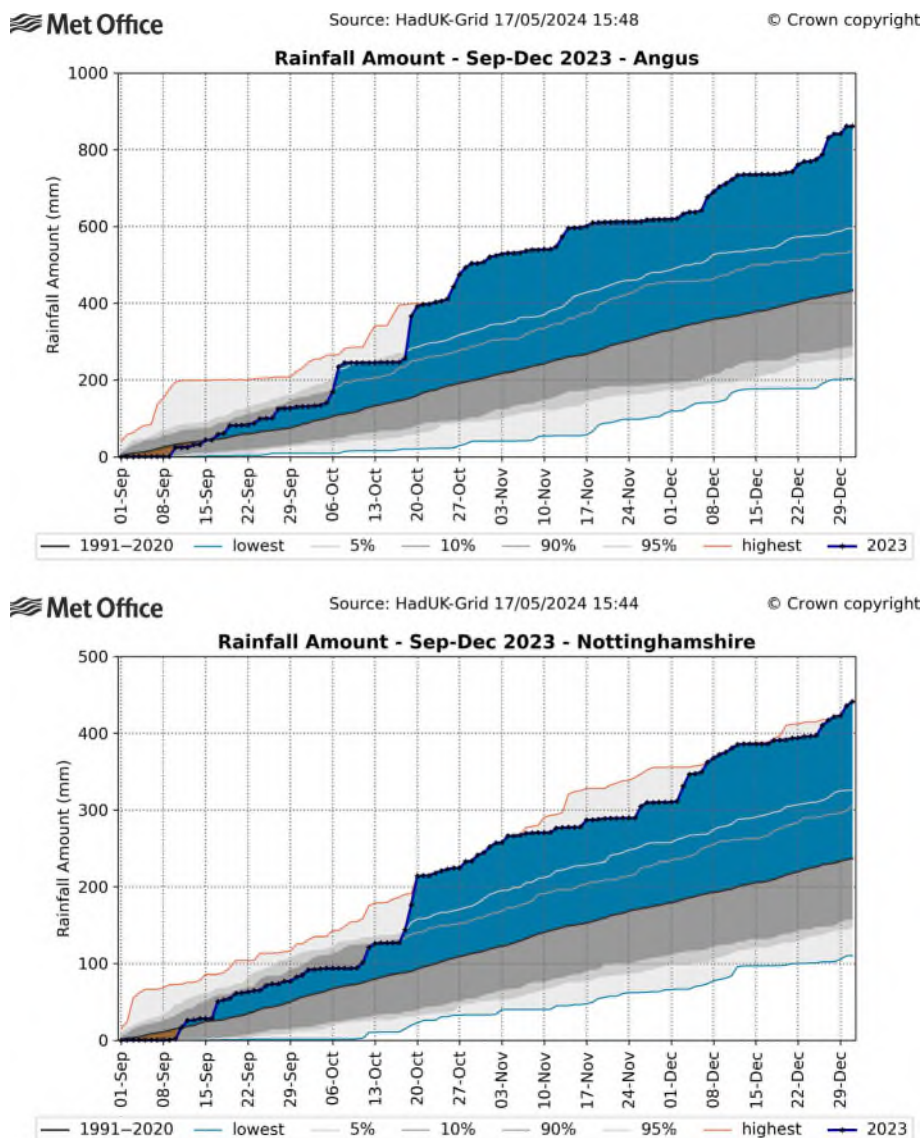
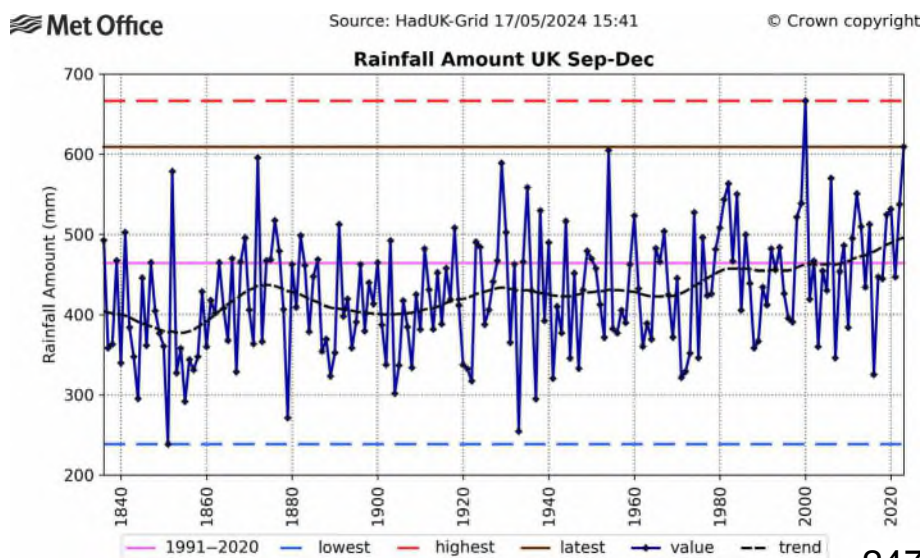


FIGURE 95 UK rainfall 1836–2024 (mm) for the 4-month period September to December.



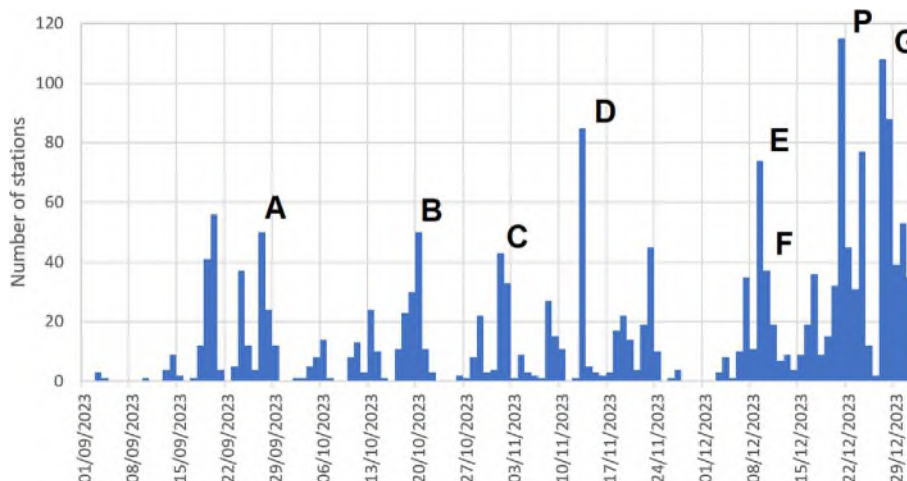


FIGURE 96 Count of the number of stations across the UK by date recording a wind gust ≥ 40 Kt (46 mph) from September to December 2023. Named storms are labelled: Agnes (27–28 September), Babet (18–21 September), Ciaran (1–2 November), Debi (13 November), Elin (9 December), Fergus (10 December), Pia* (21 December) and Gerrit (27–28 December). *Named by the Danish Meteorological Institute, DMI.

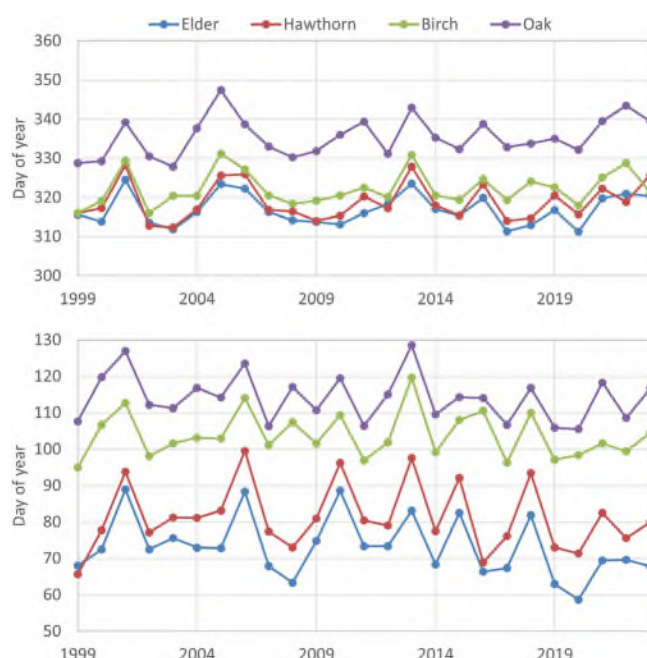


FIGURE 97 Mean day of year of first leaf and bare tree for four common shrub or tree species: Elder, Hawthorn, Silver Birch and Oak, derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

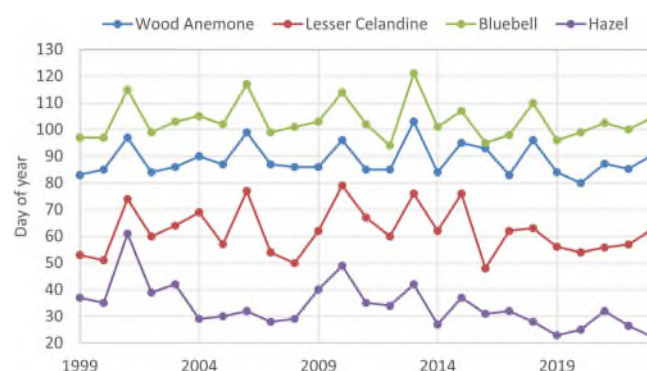


FIGURE 98 Mean day of year of first flowering for four flower species: Hazel, Lesser Celandine, Wood Anemone and Bluebell, derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

England and Wales since the snowmelt-generated floods of March 1947 (Marsh and Dale, 2002).

By the arrival of storm Gerrit on 27 December, concerns about flooding increased with temporary flood barriers installed along parts of the River Severn at Ironbridge, Shropshire and Bewdley, Worcestershire. In Yorkshire, sections of the M62 and A1M were closed due to flooding and there were huge crowds of stranded passengers at London King's Cross Station after the East

Coast Main Line was closed north of Newcastle (with impacts made worse by the number of travellers just after Christmas).

Figure 96 shows a count of the number of stations across the UK each day from September to December 2023 recording a wind gust of 40 Kt (46 mph) or higher, with the peaks generally coinciding with named storms through this period.

10 | PHENOLOGY

Phenology is the study of recurring biological events in relation to climate, typically of the dates of first and last events as they occur each year. It provides clear indicators of nature's response to weather and climate. In the UK, phenology data are collected by a citizen science

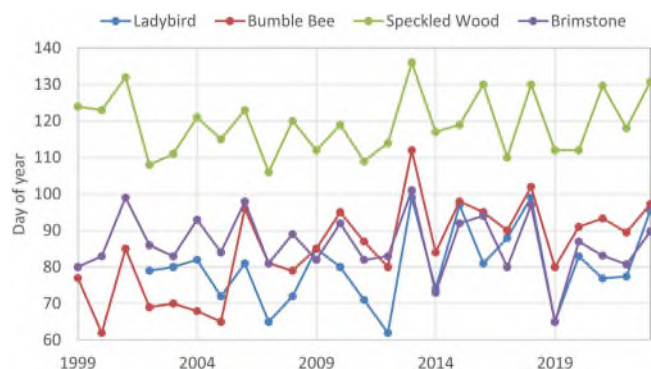


FIGURE 99 Mean day of year of first appearance of four invertebrate species: 7-spot Ladybird, Brimstone butterfly, Red-tailed Bumblebee and Speckled Wood butterfly, derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

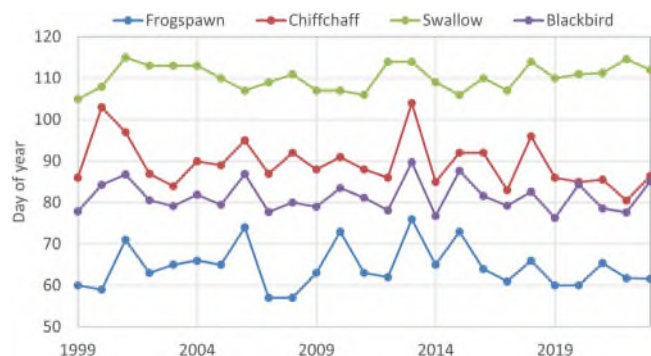


FIGURE 100 Mean day of year of first nest building of Blackbird, first observation of Chiffchaff and Swallow and first appearance of Common Frog spawn, derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

project called Nature's Calendar which relies exclusively on volunteer observers. A summary of phenological recording in the UK was given in Sparks and Collinson (2008).

In this section, we summarize average UK changes in four species of woody plants (Figure 97), four flower species (Figure 98), four invertebrate species (Figure 99), and four vertebrate species (Figure 100). We also show first and last lawn cutting dates which integrate both grass responses to temperature and human behaviour (Figure 101). For the woody species we summarize both first leaf and bare tree dates. Of the four woody species, Elder and Hawthorn are the earliest to come into leaf (in mid- to late-March), with Silver Birch and Pedunculate Oak about a month later. In autumn, bare tree dates for these species are more condensed, typically occurring in mid- to late-November. The flower species range from Hazel in early February to

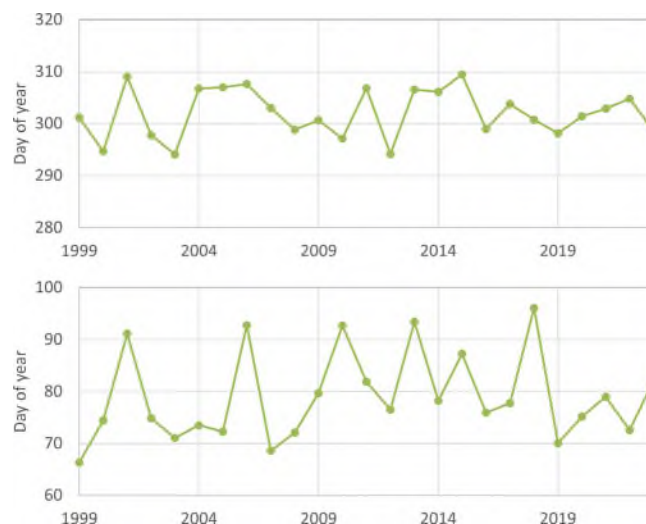


FIGURE 101 Mean day of year of first and last lawn cut, derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

Bluebell in April. With the exception of Speckled Wood butterfly the other listed invertebrates overwinter as adults. The vertebrates are a diverse group: evidence of breeding (frogspawn) in the cold-blooded Common Frog, nest building in the Blackbird, first appearance of the short distance migrant/resident Chiffchaff, and first appearance of the long distance migrant Swallow. Table 17 provides a summary of these data.

Spring 2023 was a near average or late year for most events, although the early Hazel flowering, the earliest in this series, and, to a lesser extent Elder first leafing, were likely encouraged by early season warmth in late January and February (Figure 20, Table 1). In fact, Hazel flowering has shown a significant advance over the 1999–2023 period. Other species were more influenced by the colder first half of March. High September temperatures and a generally mild autumn led to three of four woody species having later-than-average autumn dates (Figure 20, Table 1). Overall, the leaf-on season (the difference between first leaf and bare dates) was 4 days longer than the baseline largely due to a later autumn, although the lawn cutting season was 7 days shorter than the baseline. The timing of lawn cutting is quite complex; both low temperatures and dry soils inhibit vegetative growth, while wet grass discourages cutting. Spring responses to temperature varied from 1 to 7 days earlier for every 1°C increase in mean temperature of the 1–3 months before the month of mean date. In contrast, tree bare dates in autumn typically showed a response of about 2–3 days later for every 1°C increase in October temperature.

TABLE 17 Mean dates of example events for woody plant species, flowers, invertebrates and vertebrates, and lawn first and last cut derived from UK observations contributed to Nature's Calendar from 1999 to 2023.

Group	Event	Species	Mean first date 1999–2022	2023 mean first relative to 1999–2022	Mean response to a 1°C increase in <month(s) right>	Month (s)	R ² (%)
Woody plants	First Leaf	Elder	14-Mar	−5.6	−6.9	JFM	69
		Hawthorn	22-Mar	−1.6	−7.7	JFM	68
		Silver Birch	13-Apr	+0.6	−5.8	FMA	80
		Oak	24-Apr	+2.6	−5.9	FMA	77
Woody plants	Bare	Elder	11-Nov	+3.6	2.1	O	45
		Hawthorn	13-Nov	+7.2	2.6	O	45
		Silver Birch	17-Nov	−1.0	2.4	O	46
		Oak	30-Nov	+4.2	3.1	O	58
Flowers	First Flower	Hazel	3-Feb	−12.0	−5.0	DJF	36
		Lesser Celandine	2-Mar	+0.7	−6.6	JFM	52
		Wood Anemone	29-Mar	+1.9	−5.1	JFM	72
		Bluebell	13-Apr	+1.3	−5.2	FMA	49
Invertebrates	First seen	7-spot Ladybird	20-Mar	+16.0	−4.3	M	28
		Brimstone butterfly	27-Mar	+3.6	−5.3	M	66
		Red-tailed Bumblebee	25-Mar	+12.5	−5.4	M	31
		Speckled Wood butterfly	28-Apr	+12.0	−7.2	MA	69
Vertebrates	First seen nest building	Blackbird	22-Mar	+3.8	−2.2	M	56
		Frogspawn	5-Mar	−3.0	−4.5	JFM	71
	First Seen	Chiffchaff	30-Mar	−3.2	−3.5	M	59
		Swallow	20-Apr	+1.8	(−0.8)	(A)	11
Grass	First in spring	Lawn cutting	19-Mar	+3.2	−7.0	JFM	65
	Last in autumn		28-Oct	−3.5	2.9	O	58

Note: Columns show the mean dates for the baseline period (1999–2022), the anomaly in days for 2023 relative to this period, the temperature response (days change per°C C: −ve earlier, +ve later) and months of maximum temperature sensitivity. Values in brackets do not reach statistical significance at $p < 0.05$. The final column shows the proportion of the variance in the mean first date explained by the temperature variables (R^2).

AUTHOR CONTRIBUTIONS

Section 6: Jevrejeva S., Matthews A., Williams J.
Section 10: Garforth J., Sparks T. All other sections: other authors.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in Centre for Environmental Data Analysis at <https://catalogue.ceda.ac.uk/uuid/4dc8450d889a491ebb20e724debe2dfb>

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APPENDIX A: DATASETS

These appendices provide information about the underlying datasets used in this report. Much of the content is repeated from previous reports, with only minor updates, but they are included here in full for reference.

A1 | NAO index

The Winter North Atlantic Oscillation (WNAO) index is traditionally defined as the normalized pressure difference between the Azores and Iceland. This represents the principal mode of spatial variability of atmospheric pressure patterns in the North Atlantic. The WNAO index presented in this report is an extended version of this index based on a series maintained by the University of East Anglia Climatic Research Unit, using data from stations in Gibraltar and south-west Iceland (Jones et al., 1997). These two sites are located close to the centres of action that comprise the WNAO. Data from these stations have been used to create homogeneous pressure series at the two locations which extend back to 1821. The WNAO index in this report is based on these data back to 1850, with winter defined as December to February to provide consistency with winter statistics presented elsewhere in this report.

For the UK, a positive WNAO index tends to be associated with higher temperatures and higher rainfall (R^2 values of 0.56 for winter mean temperature and 0.26 for winter rainfall based on years 1885–2023 and 1850–2023, respectively. If the WNAO and temperature/rainfall

series are detrended using the trend lines shown in the figures, the R^2 values increase to 0.62 and 0.28). This means that well over half of the annual variability for UK winter mean temperature and over a quarter for rainfall may be associated with the WNAO (Figure 3). Importantly, however, it also means the WNAO is unable to fully explain the variability of UK winters because the complexity of weather types and associated temperature and rainfall patterns through the season cannot be fully accounted for by this single index—the correlation with rainfall in particular being fairly weak.

This is because other modes of spatial variability in atmospheric pressure patterns also affect the UK's weather. For example, the East Atlantic (EA) and Scandinavian (SCA) patterns—the second and third modes of spatial variability represented in their positive phases by low pressure to the west of Ireland and high pressure over Scandinavia, respectively—also exert an influence (Hall & Hanna, 2018). The influence of WNAO may also differ regionally across the UK, for example for rainfall across the north-west compared to the south-east, which overall UK rainfall statistics will tend to smooth out (West et al., 2018).

The centres of action that define the summer NAO (SNAO) correspond to grid-point pairs 60° N, 5° E and 80° N, 50° W—located to the east of the Shetland Islands and in north-west Greenland, respectively. These reflect the smaller spatial scale and a more northerly track of summer Atlantic low pressure systems (Folland et al., 2009). Due to their location a station-based SNAO series cannot be used. Instead, the SNAO index has been calculated from the 20th Century Reanalysis (Slivinski et al., 2019) and extended to the present day using the ERA5 reanalysis (Hersbach et al., 2020).

The index is calculated as the difference in seasonal mean sea-level pressure between these grid-point pairs for each year from 1850 to 2023 inclusive. Summer is defined as June, July and August to provide consistency with summer statistics presented elsewhere in the report. Note this SNAO definition differs from Folland et al., 2009 which uses July and August only. For the UK, a positive SNAO tends to be associated with higher temperatures and lower rainfall (R^2 values of 0.21 for summer mean temperature and 0.48 for summer rainfall based on years 1884–2023 and 1850–2023, respectively. If the SNAO and temperature/rainfall series are detrended using the trend lines shown in the figures, then these R^2 values change to 0.35 and 0.47). So, as with the WNAO, this index is unable to fully explain the variability of UK summers which will also be influenced by other modes of spatial variability. In contrast to the WNAO, for the SNAO it is the correlation with

temperature, rather than rainfall, that is weak. The efficacy of the 20th Century Reanalysis to calculate the SNAO index prior to 1880 is likely to be limited by data availability, so uncertainties are likely to be larger early in the series.

A2 | HadUK-Grid dataset

The principal source of data in this report is the HadUK-Grid dataset, comprising monthly and daily gridded data covering the UK (Hollis et al., 2019). The primary purpose of these data is to facilitate monitoring of UK climate and research into climate change, impacts and adaptation. All gridded data are at 1 km resolution. The grids are based on the GB national grid, extended to cover Northern Ireland and the Isle of Man, but excluding the Channel Islands. This dataset is updated annually. This report uses version 1.3.0.0 of the dataset. The previous version 1.2.0.0 was used in the State of the UK Climate 2022 report (Kendon et al., 2023). The main change from v1.2.0.0 to v1.3.0.0 has been the inclusion of the latest year, 2023 although see also discussion of Figure A1. Evaluating and improving the HadUK-Grid dataset and associated underlying station data remain active and ongoing task.

The underlying source of UK station data used to produce the gridded dataset is the Met Office Integrated Data Archive System (MIDAS) Land and Marine Surface Stations Database. This has been supplemented by further recently digitized historic data from multiple sources including Met Office Monthly and Daily Weather Reports and monthly rainfall totals from both British Rainfall and the 'Rainfall Rescue' project, comprising digitized data contained within the 'Ten year rainfall' collection (Met Office Digital Library and Archive, 2020). This collection of transcribed data went through an extensive process of

consolidation, quality control and verification of meta-data, described in detail by Hawkins et al. (2023). This version of HadUK-Grid has been built using the second version of this rainfall rescue collection (v2.0.0, Hawkins, 2023), also used for HadUK-Grid v1.2.0.0.

Table A1 shows the monthly and daily grids from HadUK-Grid used for this report, including the year from which variables are available. Derived annual grids are also included. Daily temperature has been gridded back to 1960, with daily rainfall back to 1891. With daily data there is often a weaker link between the data and the geographical factors which shape the average over a longer time-scale. Metrics in this report based on the daily rainfall grids are mostly presented from 1961, even though these grids extend back to 1891. This is because of the step-change in station network density for daily rainfall in 1961 (Figure A3). The smaller number of stations before this date used for the daily rainfall grids means that further work is needed to determine the extent to which any trends in metrics in earlier years are influenced by the relatively low station network density.

Several of the monthly climate variables (days of air frost, days of rain ≥ 1 mm and days of rain ≥ 10 mm) have been derived from the daily grids (daily $T_{\min}$ and daily rainfall, respectively) rather than gridded from monthly station values directly. This approach has the advantage of ensuring that they are consistent with the daily grids on which they are based (which would not be the case if they were gridded from station data). Because the gridding is at a daily timescale, we also anticipate that there will be a better overall representation of spatial variation in these monthly variables. Annual degree-day and rainfall intensity grids have also been derived from daily temperature and daily rainfall grids respectively. In contrast, monthly temperature and rainfall grids are gridded from monthly station data, rather than being derived from daily temperature and rainfall grids. This means

FIGURE A1 Numbers of stations used for gridding in this report (solid lines)—monthly $T_{\max}$, $T_{\min}$, T_{mean} (1884–2023), monthly days of ground frost (1961–2023), monthly sunshine (1910–2023) and monthly windspeed (1969–2023). Number of stations used for the previous version of HadUK-Grid (v1.2.0.0) for groundfrost, sunshine and windspeed (dotted).

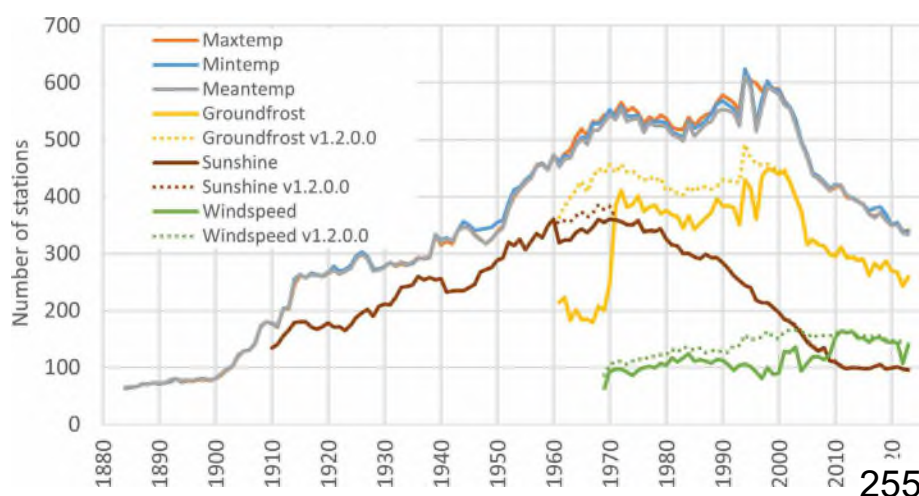


TABLE A1 Monthly and daily variables presented in this report, gridded over the UK at 1 km resolution.

Climate Variable	Definition	First year available	Gridding time-scale
Max air temperature	Monthly average of daily max air temperatures°C	1884	Monthly
Min air temperature	Monthly average of daily min air temperatures°C	1884	Monthly
Mean air temperature	Monthly average of mean daily max and mean daily min air temperatures°C	1884	Monthly
Days of air frost	Count of days when the min air temperature is below 0°C	1960	Monthly ^a
Days of ground frost	Count of days when the grass min temperature is below 0°C	1961	Monthly
Heating degree days	Day-by-day sum of number of degrees by which the mean temperature is <15.5°C	1960	Annual ^b
Cooling degree days	Day-by-day sum of number of degrees by which the mean temperature is more than 22°C	1960	Annual ^b
Growing degree days	Day-by-day sum of number of degrees by which the mean temperature is more than 5.5°C	1960	Annual ^b
Precipitation	Total monthly precipitation amount (mm)	1836	Monthly
Days of rain ≥1 mm	Number of days with ≥1 mm precipitation	1891	Monthly ^a
Days of rain ≥10 mm	Number of days with ≥10 mm precipitation	1891	Monthly ^a
Rainfall intensity	Total precipitation on days with ≥1 mm divided by the count of days with ≥1 mm during the year	1891	Annual ^b
Sunshine	Total hours of bright sunshine during the month based on the Campbell–Stokes recorder	1910	Monthly
Windspeed	Monthly mean wind speed Kt	1969	Monthly
Max air temperature	Daily max air temperatures°C	1960	Daily
Min air temperature	Daily min air temperatures°C	1960	Daily
Precipitation	Daily precipitation amount (mm)	1891	Daily

Note: The table also includes monthly and annual grids derived from daily grids.

^aDenotes monthly grids derived from daily grids.

^bDenotes annual grids derived from daily grids.

that they are not exactly consistent (indeed observations from monthly rain-gauges, or digitized monthly rainfall data from Rainfall Rescue, can only be used for the monthly rainfall grids)—but in general differences are small.

The approximate total number of station values used to generate the grids for each variable is given in Table A2. In total well over 100 million station values have been used to generate the HadUK-Grid dataset, with more than 90% of these accounted for by daily temperature and daily rainfall. Note however that for monthly variables (e.g., monthly mean maximum temperature), the majority of the monthly station values will have themselves been derived from daily station values (e.g., daily

maximum temperature). So in practice the number of *station values* used to generate the grids will differ from the number of *station observations* extracted from the MIDAS database or the other digitized data sources.

Figures A1–A3 show the number of stations used for creating monthly and daily grids for each of the variables. For monthly temperature, the number of stations varies from fewer than 100 for the period 1884–1900, increasing to between 200 and 400 from the 1910s to 1950s and reaching a peak of over 500 stations from the 1960s to 1990s, followed by a subsequent decline to below 400 stations in the most recent decade. The number of stations recording monthly days of ground frost (i.e., with a grass minimum thermometer) is typically around 100

than air temperature from the 1960s onwards. The number of monthly sunshine stations rises from around 150 to over 300 from the 1950s to 1980s, followed by a steady decline to around 100 stations in 2010, thereafter being stable. The number of monthly windspeed stations rises from 100 to 120 in the 1970s and 1980s to over 150 stations in the 2010s, followed by a slight fall.

The number of stations used for groundfrost, sunshine and windspeed have reduced at different points in the historical series when comparing v1.3.0.0 to the previous version v1.2.0.0 (shown dotted in Figure A1). These reductions in station numbers have been caused by changes made in the data processing steps in the latest version upstream of the gridding process.

- For groundfrost this reduction has been caused by an automated quality control process flagging the historical data which have been removed as suspect (mostly affecting data from 1961 to 1970).
- For sunshine the small reduction in the 1960s has been caused by the removal of digitized monthly sunshine data through this period where we wish to reverify the data source.

- For windspeed the reduction from 1969 to 2010 has been caused by changes to rules applied relating to data completeness when compiling daily mean windspeeds, which in turn have followed through to monthly statistics.

We anticipate that the vast majority of observations removed will be likely to be satisfactory for gridding and will be reintroduced in future versions of this dataset, but we have removed them from this version as a precaution. The impact on the large-scale metrics in this report (i.e., area averages by country or UK for these variables) is expected to be minimal.

As would be expected the number of stations for daily temperature over the period 1960–2023 matches that for monthly temperature (Figure A2).

Figure A3 shows the number of stations for monthly and daily rainfall. The inclusion of digitized monthly rainfall data sources prior to 1961, in particular Rainfall Rescue data, has effectively eliminated the step change in station numbers before 1960, with the number of stations in the dataset in 2023 equivalent to that in the 1880s. The total number of stations in the network does not in itself provide the full picture however. As an

TABLE A2 Approximate total number of observations used for each variable in v1.3.0.0.

Climate variable	Number of years	Number of grids	Average number of stations values per grid	Total number of station values
Monthly $T_{\max}$	140	1680	355	600,000
Monthly rainfall	188	2256	3453	7,800,000
Monthly groundfrost	63	756	329	250,000
Monthly sunshine	114	1368	235	320,000
Monthly windspeed	55	660	116	77,000
Daily $T_{\max}$	64	23376	512	12,000,000
Daily rainfall	133	48577	1918	93,000,000

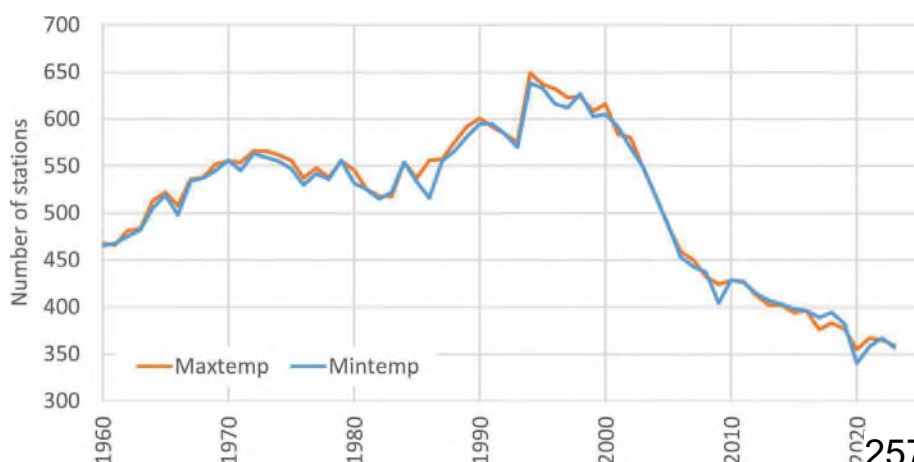


FIGURE A2 Numbers of stations used for daily temperature 1960–2023. The numbers are very similar to those for monthly $T_{\max}$ and monthly $T_{\min}$ as shown in Figure A1.

example, Figure A4 compares the monthly rainfall station coverage in September 1885 (a) and September 2023 (b). While there are fewer stations in 2023, they are generally better spatially distributed, with 1885 having significant clustering in some areas such as south-east and north-west England and Scotland's Central Belt, while

other areas such as west Wales and northern Scotland remain relatively data sparse. Even so, the addition of these recently digitized data still represent a major improvement.

The step change in station numbers is still present for daily rainfall in v1.3.0.0. Since the majority of the

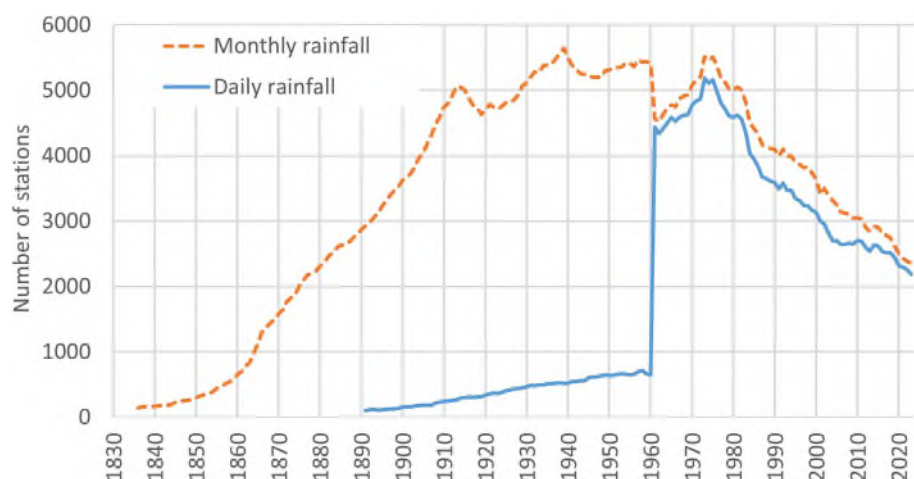


FIGURE A3 Numbers of stations used for monthly rainfall (1836–2023) and daily rainfall (1891–2023).

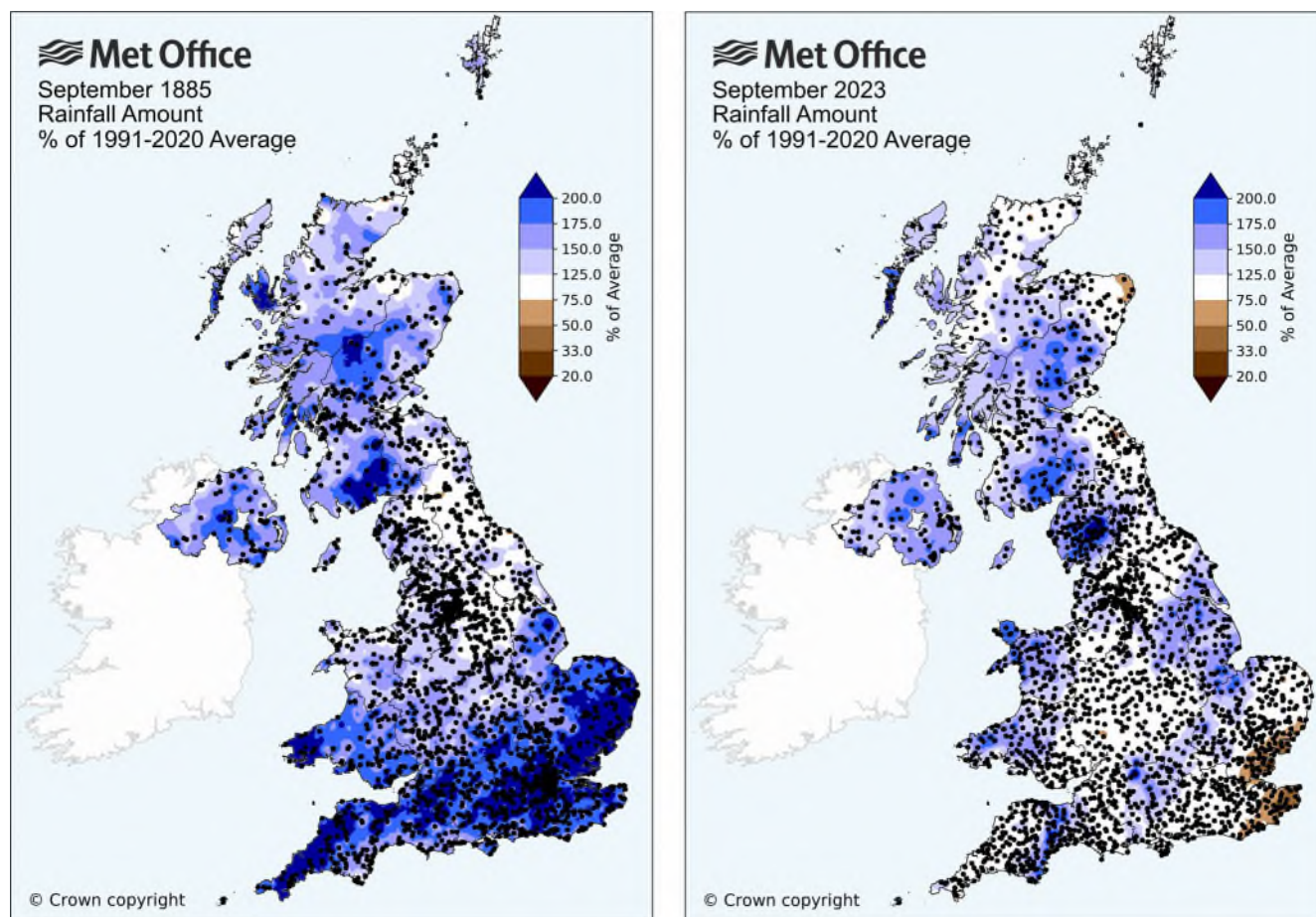


FIGURE A4 (a,b) The station network used in HadUK-Grid v1.3.0.0 comparing monthly rainfall for September 1885 (2620 stations) and September 2023 (2282 stations).

monthly rainfall observations will be from stations returning daily values, this emphasizes the potential of future digitization work to increase the amount of daily rainfall data, although the total volume of data required to bring the number of daily stations up to equal the number of monthly stations would be very much greater. For example, an average of 3000 stations each day for 100 years would be equivalent to over 100 million observations, approximately doubling the number of observations in the HadUK-Grid dataset, possibly requiring a new approach to digitization (e.g., the use of AI). Investigating the efficacy of different digitization approaches is

an ongoing active area of research both in the Met Office and elsewhere.

A3 | The observing network in 2023

Figure A5 shows the state of the UK's observing network in 2023 based on data availability from stations that have actively returned data during the year. The networks are designed and maintained to achieve a good spatial coverage with stations representative of all areas of the UK. Due to its high spatial variation, the network is



FIGURE A5 State of the UK observing network in 2023. The number of observations is indicative as these may vary on a daily basis due to data availability.

much denser for rainfall compared to other variables, but even so highly localized events may still be missed.

While the majority of the UK is reasonably well covered, some areas, notably western Scotland, are more data-sparse than others, but these also tend to correspond to areas with a lower population. Coverage for some variables (notably sunshine) may considerably reduce if data for an individual station is missing, and where surrounding stations struggle to cover the gap—that is, there is limited redundancy in the network. Overall, however, even though the current number of stations may be fewer than in earlier decades (e.g., the 1970s), the spatial distribution of stations is more even, and so there is an improvement in the overall network's ability to capture the spatial characteristics of climate variables over that day, month, season or year.

A4 | Long-term average grids

The long-term averages for the WMO standard 30-year climatological reference periods 1961–1990 and 1991–2020 presented in this report have been calculated from long term average monthly gridded datasets at 1 km. These gridded long-term averages have been derived as simple averages of the individual monthly grids spanning each 30-year period. The long-term averages for nations and regions quoted in this report are, therefore, self-consistent with the long term average calculated from monthly, seasonal and annual series in the report, although we note this is not exactly true for winter since 30 individual winters in the period will include the previous December (e.g., December 1990 for the period 1991–2020) and omit the last December (December 2020)—although in practice any difference will usually be very small.

The introduction section explains of the choice of averaging periods used in this report. More background and discussion regarding averaging periods is provided in Hulme, 2020.

A5 | Annual degree days

Degree-day datasets were generated from the daily temperature grids, as indicated in Table A1, using formulae given in Table A3 and A4. The daily mean temperature T_{mean} is calculated from the daily maximum temperature T_{max} and the daily minimum temperature T_{min} as $(T_{\text{max}} + T_{\text{min}})/2$. The degree-day value is estimated differently depending on which of T_{max} , T_{mean} or T_{min} are above (for Cooling Degree Days and Growing

Degree Days) or below (for Heating Degree Days) the defined threshold.

A6 | Consistency and quality control

Quality control of station observations held in the MIDAS database (the source of the majority of station data used in HadUK-Grid) is the responsibility of the Met Office Observations Quality Management (OBQM) team. This team runs a suite of both automated and manual quality control checks. The other digitized data sources have also had quality checks at time of digitization where possible. For example, tables of monthly rainfall published in British Rainfall also include annual totals, enabling a closure check on the monthly totals. Development of the HadUK-Grid dataset and improvement in quality control processes to remove as much suspect data as possible, whilst avoiding the removal of good data (summarized by what in the field of machine learning is termed a “confusion matrix”) remains an active area of research and development and will feed into future versions. Further details are beyond the scope of this report.

TABLE A3 Formulae used for calculating cooling or growing degree days above thresholds of 22°C and 5.5°C.

Condition: daily T_{max} T_{min} and T_{mean} above or below $T_{\text{threshold}}$	
$T_{\text{threshold}}$	Degree-day value
$T_{\text{max}} \leq T_{\text{threshold}}$	0
$T_{\text{min}} \geq T_{\text{threshold}}$	$T_{\text{mean}} - T_{\text{threshold}}$
$T_{\text{mean}} \geq T_{\text{threshold}}$ and $T_{\text{min}} < T_{\text{threshold}}$	$0.5 (T_{\text{max}} - T_{\text{threshold}}) - 0.25 (T_{\text{threshold}} - T_{\text{min}})$
$T_{\text{mean}} < T_{\text{threshold}}$ and $T_{\text{max}} > T_{\text{threshold}}$	$0.25 (T_{\text{max}} - T_{\text{threshold}})$

TABLE A4 Formulae used for calculating heating degree days below a threshold of 15.5°C.

Condition: daily T_{max} T_{min} and T_{mean} above or below $T_{\text{threshold}}$	
$T_{\text{threshold}}$	Degree-day value
$T_{\text{min}} \geq T_{\text{threshold}}$	0
$T_{\text{max}} \leq T_{\text{threshold}}$	$T_{\text{threshold}} - T_{\text{mean}}$
$T_{\text{mean}} \leq T_{\text{threshold}}$ and $T_{\text{max}} > T_{\text{threshold}}$	$0.5 (T_{\text{threshold}} - T_{\text{min}}) - 0.25 (T_{\text{max}} - T_{\text{threshold}})$
$T_{\text{mean}} > T_{\text{threshold}}$ and $T_{\text{min}} < T_{\text{threshold}}$	$0.25 (T_{\text{threshold}} - T_{\text{min}})$

The HadUK-Grid dataset uses open-source ancillary files for terrain elevation, proximity to coast and urban land use that are used within the interpolation scheme, which provides traceability. The dataset is also version controlled—including a version-controlled numbering system, so State of the UK Climate publications can all be linked to a specific version of the dataset (v1.3.0.0 for this report). Details of the HadUK-Grid dataset are provided in Hollis et al. (2019).

A7 | Quality control of record values

Quality control of station observations is particularly important for potential new record values. While this is especially the case for high profile records such as the UK highest maximum temperature record of 40.3°C at Coningsby Lincolnshire on 19 July 2022, all possible records must be carefully checked. The Met Office has an established process for verifying potential new records, managed by the Site Weather Assessment Team (SWAT). Whenever a potential new record occurs, this team undertakes a detailed manual assessment prior to the new record's acceptance. This assessment includes: a site assessment to take into account any potential issues affecting exposure; checking instrument calibration dates; and a detailed check of the observations (at an automated site this would typically comprise minute-resolution data), including checks with neighbouring stations. At a manual station, verification may also involve a discussion with the observer. Supplementary evidence or observations would be used where possible (e.g., rain-radar).

The SWAT team makes a final decision based on collective expert judgement using all available evidence, based on the general premise that an observation should be assumed valid unless there is clear supporting evidence to the contrary. The record's acceptance or rejection is confirmed in as timely a manner as possible, typically within a week. The monthly temperature records in Section 7.2 are examples of observations accepted as new records after verification by the SWAT process.

While SWAT reports are official Met Office documents primarily for internal use, publicly available versions of these documents are available as Weather Event Verification Reports from the Met Office digital library and archive at https://digital.nmla.metoffice.gov.uk/SO_cb95d84f-d807-4818-897c-687c2cdfc80b/.

A8 | Areal series

The monthly series for the UK and countries are calculated as area averages derived from the 1 km monthly gridded datasets. Each monthly value is an average of all

the individual 1 km grid point values which fall within the UK or country. The seasonal and annual series in turn are calculated from the monthly areal series. This approach enables a single statistic to be produced for each area (UK or country) from each grid, despite the fact that the UK's climate has a very high degree of spatial variation (e.g., with elevation). These statistics are self-consistent through time, without any gaps. Daily area averages have similarly been calculated from the 1 km daily gridded datasets.

In the same way, long-term averages are calculated as an average of all the individual 1 km long-term average grid points which fall within the UK or country. Long-term average statistics are consistent with the monthly statistics (although as noted in the Appendix A.4 winter is an exception to this).

Statistics for the UK and countries are useful for monitoring annual variability, trends and extremes but inevitably may mask considerable spatial variation across the area as illustrated by the anomaly maps.

Some of the maps and analyses within this report are based on a set of county areas for the UK. These comprise ceremonial counties in England, Scottish lieutenancy areas in Scotland, and preserved counties in Wales, defined in 1997. More detail is provided at <https://www.data.gov.uk/dataset/ad4fbd84-3185-4606-b619-b5317bc30a41/ceremonial-county>. Northern Ireland is divided into six counties. The reason these county areas were chosen is that they provide a stable set of areas for long term monitoring, avoiding potential problems with boundary changes for other possible choices of areas which might be routinely updated (e.g., as a result of administrative changes). Area average statistics would otherwise need continual updating to keep in step.

There are 97 county areas in total (Figure A6). These are particularly useful for climate monitoring because they are generally similar in size, although inevitably some areas are much smaller than others. At this size these counties provide area average statistics which usually cover much of the spatial variation across the UK. Rainfall has such a large spatial variability that even at this scale the county areas may struggle to capture the detail. Statistics for county areas will also be much more sensitive to station network density (see Figures A1–A4). More work is required to evaluate the relationship between area size and uncertainty in the area average statistics. Uncertainties are discussed further in Appendix B.2.

A9 | Global surface temperature

HadCRUT.5.0.2.0 is a gridded dataset of global historical surface temperature anomalies relative 261

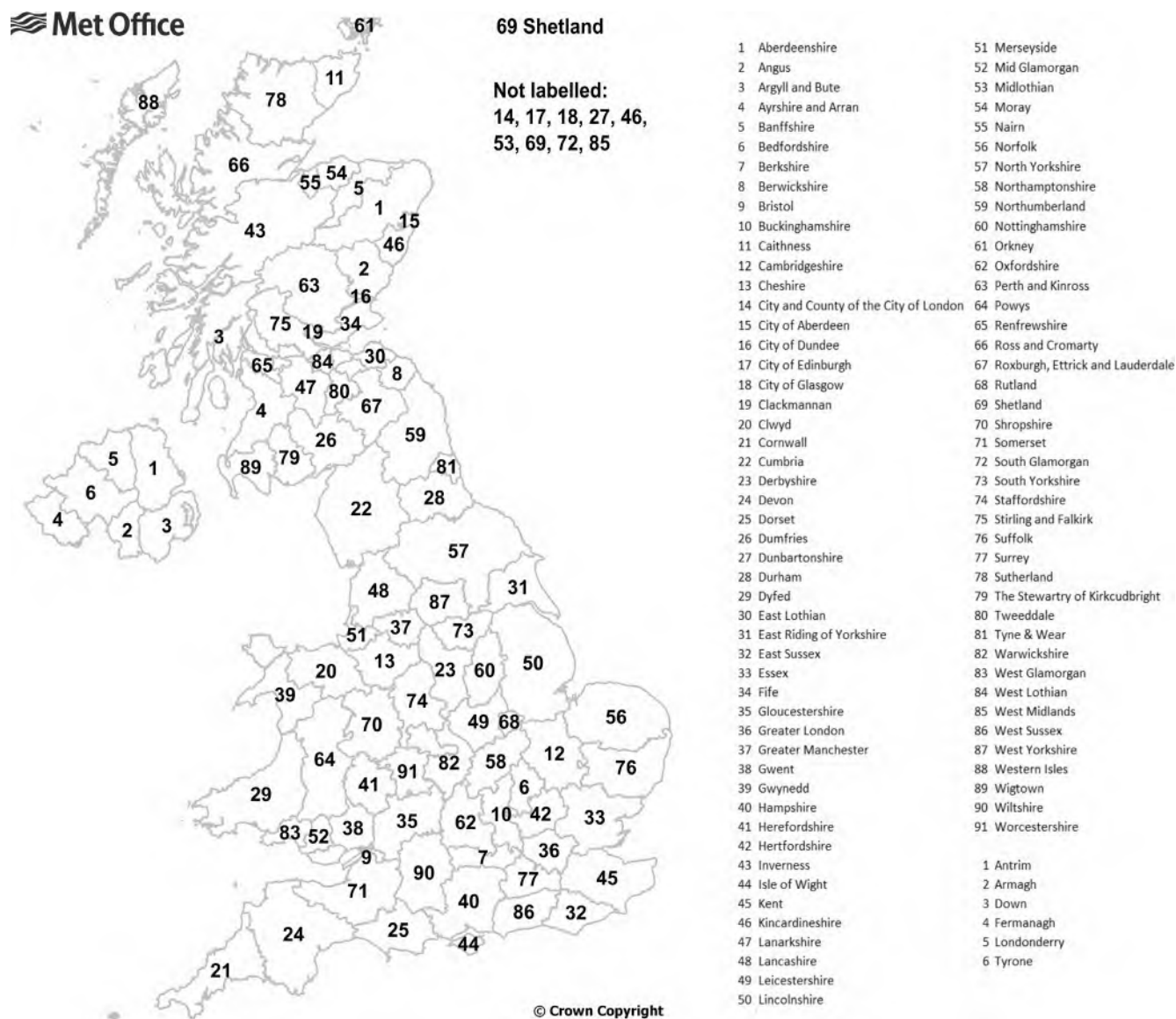


FIGURE A6 County areas for the UK used in this report. The Isle of Man is excluded.

1961–1990 reference period. Data are available for each month from January 1850 (Morice et al., 2021). The HadCRUT5 dataset of global surface temperature is produced from the station series of the CRUTEM5 land-surface air temperature dataset (Osborn et al., 2021) and the HadSST4 sea-surface temperature dataset (Kennedy et al., 2019).

The CRUTEM5 station series comprises monthly-mean temperature records from a global network of several thousand weather stations, from which CRUTEM5 anomaly fields are calculated. HadSST is produced by taking in situ measurements of SST from ships, moored and drifting buoys, stored in the International Comprehensive Ocean-Atmosphere Data Set (ICOADS).

The HadCRUT5 global average values are calculated as the ‘best estimate’ mean of 200 ensemble member

dataset realisations that sample the distribution of uncertainty. HadCRUT5 is one of several global surface temperature datasets, with other examples produced by NOAA, NASA, Berkeley Earth, and the German Climate Computing Centre DKRZ. Global temperature series based on reanalysis are also produced by ECMWF (ERA5) and Japan (JRA-55).

A10 | Central England temperature

The CET monthly series, beginning in 1659, is the longest continuous temperature record in the world (Manley, 1974). It comprises the mean of three observing stations covering a roughly triangular area of England from Bristol to London to Lancashire; the

stations used for this series are Pershore College (Worcestershire), Rothamsted (Hertfordshire) and Stonyhurst (Lancashire) although the stations used in this series have changed in the past. A CET daily series is also available from 1772 (Parker et al., 1992).

Following each station change the data are adjusted to ensure consistency with the historical series by analysing periods of overlap between stations, and since 1974 the data have been adjusted to allow for any artificial warming effects due to the expansion of local built-up areas. Parker and Horton (2005) and Parker (2010) have investigated uncertainties in the CET series.

Last year's report used an updated version of the CET series, v2.0.0.0 (Legg et al., 2024). The version of the CET series presented in this report is v2.1.0.0, released May 2024. Updates to the CET series for this and the previous release (v2.0.1.0, April 2023) include substantial structural improvements to the underlying software, including addressing some historical issues. These changes have had negligible impact on the CET series overall (e.g., the rank of individual years). This series is updated on an annual basis. Detailed release notes for the CET series are available at https://www.metoffice.gov.uk/hadobs/hadcet/releases/cet_releases.html.

The CET series is a station-based series using data from a *combination* of observing stations. Climate records in the UK may also come from *individual* climate stations, examples of which include the long-running stations at Oxford and Durham. Comprehensive descriptions of these two stations and their associated climate series are provided in Burt and Burt (2019, 2022).

A11 | Sea-surface temperature data

The Met Office Hadley Centre's sea surface temperature (SST) data set, HadSST.4.0.1.0 is a monthly global field of SST on a 5° latitude by 5° longitude grid from 1850 to date. This is derived from a combination of fixed and drifting buoys, ship bucket and engine room intake thermometers and hull sensors. The data have been adjusted to minimise the effects of changes in instrumentation throughout the record. The data set is presented as a set of interchangeable realizations that capture the temporal and spatial characteristics of the estimated uncertainties in the biases (Kennedy et al., 2019).

The UK near-coast sea-surface temperature series in this report comprises the average of the 5° latitude-longitude grid-cells adjacent to the coast of the Great Britain, which at this spatial resolution comprises four grid-cells. Although this is much lower than the 1° latitude-longitude resolution of HadISST1 (Rayner et al., 2003), HadSST.4.0.1.0 has a more up to date homogenization so

should be better for identifying long term trends, and it also has uncertainty information as shown in Figure 32.

A12 | England and Wales precipitation series

The England and Wales precipitation series (EWP) has monthly data back to 1766, and is the longest instrumental series of this kind in the world. The daily EWP series begins in 1931. The series incorporates a selection of long-running rainfall stations to provide a homogeneity-adjusted series of areal-averaged precipitation. EWP totals are based on daily weighted totals from a network of stations within each of five England and Wales regions.

The extent to which seasonal trends apparent in the EWP series are influenced by homogeneity issues (e.g., the number of stations used historically to compile the EWP series, how well the network has historically captured orographically enhanced rainfall across high ground, how well the network has historically captured precipitation which has fallen as snow) remains an area of investigation, and trends in the series should be treated with caution (Murphy et al., 2020). Various papers detail the development of the EWP series (Alexander & Jones, 2000; Simpson & Jones, 2012; Wigley et al., 1984). Figure 41 shows that the EWP series is highly correlated with the England and Wales series (the areal-average for England and Wales combined) from the HadUK-Grid dataset from 1836.

A13 | Rain gauge and snow depth data

Daily rainfall data presented in this report are 0900–0900 UTC totals from either daily or tipping-bucket rain-gauges registered with the Met Office. The rain-gauge network has steadily diminished from a peak of over 5000 rain-gauges across the UK in the mid-1970s to fewer than 2500 in 2023 (i.e., halving in 50 years). The majority of these gauges are owned and maintained by the Met Office, the Environment Agency, Natural Resources Wales, SEPA and Northern Ireland Water. The spatial distribution of the network has changed with time but nevertheless the high network density ensures that most rainfall events will be well captured, although inevitably highly localized convective rainfall events may be missed.

Snow depth data are recorded at 0900 UTC. These are either spot observations from automatic snow depth sensors or manual observations of representative level depth in a location free from drifting or scour by wind; ideally the average of three measurements would be recorded. The network comprised over 400 stations from 1

2000, reaching a peak of over 500 stations in the 1990s. It subsequently reduced to around 200 stations in 2010 and has remained fairly steady thereafter.

A14 | Sunshine data

The UK's sunshine network in 2023 comprises two instrument types: just over a third Campbell-Stokes (CS) sunshine recorders which are read manually; the remainder Kipp and Zonen CSD-1 (KZ) automatic sunshine recorders. An upward adjustment of KZ totals is made to give a monthly 'CS equivalent sunshine'. This ensures that the full sunshine network (automatic and manual) is used while maintaining consistency between the two instrument types. The adjustment is made KZ to CS, not the other way round, because although KZ outnumber CS for the current network, the majority of total historical sunshine observations, by far, are CS. Legg (2014) and references therein provide further details.

A15 | Wind data

Wind speeds are measured by cup anemometers located on a standard 10 m height mast. The rate of rotation is proportional to the speed of the wind. These were introduced by the Met Office for wind measurement at surface stations during the 1950s (Sloan & Clark, 2012). At mountain stations, wind speeds are measured by heated sonic anemometers which have no moving parts and avoid potential problems with icing. Due to data availability, the wind analyses within this report are based on data from 1969.

A16 | Sea level data

Sea-level changes around the British Isles are monitored by the UK national network of 42 tide gauges, which falls under the authority of the Environment Agency. For more than 100 years tide gauges have provided measurements of sea-level change relative to the Earth's crust. However, tide gauges are attached to the land, which can move vertically thus creating an apparent sea level change.

In recent years, the State of the UK Climate report has included a UK sea level index for the period since 1901 computed from sea level data from five of the longest operating stations (Aberdeen, North Shields, Sheerness, Newlyn and Liverpool), which provides a reliable estimate for UK sea level rise, excluding the effect of this vertical land movement. The records from each station

are combined after removing the long-term trend from each to account for varying vertical land movement rates across the country. After aggregating the records, the calculated country-wide average rate of 1.4 mm/year is reintroduced (Bradley et al., 2011; Woodworth et al., 2009).

However, creating this index relies on tide gauges following international best practice on operation and quality control to ensure reliability of the data, and long-term stability of the vertical reference frame (UNESCO/IOC, 2020). Unfortunately, from 2007 onward, there have been more gaps in observations throughout the network, including for the five long-running stations. We have been unable to update the index for 2023 as only Newlyn provided enough data to generate an annual mean. A UK national report in 2019 for the Global Sea Level Observing System (GLOSS) provides more information about issues with the network, available at https://www.gooscean.org/index.php?option=com_oe&task=viewDocumentRecord&docID=24144.

The tide gauge data used in this study is distributed by the British Oceanographic Data Centre (BODC, <https://www.bodc.ac.uk>) having undergone full quality control, and is funded by the Environment Agency. Trends in the index have been calculated by fitting linear trends using the CATS (Create and Analyse Time Series) package described in Williams (2008) which produces realistic estimates of uncertainty by accounting for autocorrelation in the series.

A17 | Skew surges from highlighted storms and other high levels in 2023

The data for the storm surge analysis is also supplied by BODC and processed for the National Tidal and Sea Level Facility (<https://ntslf.org>) specifically for short-term

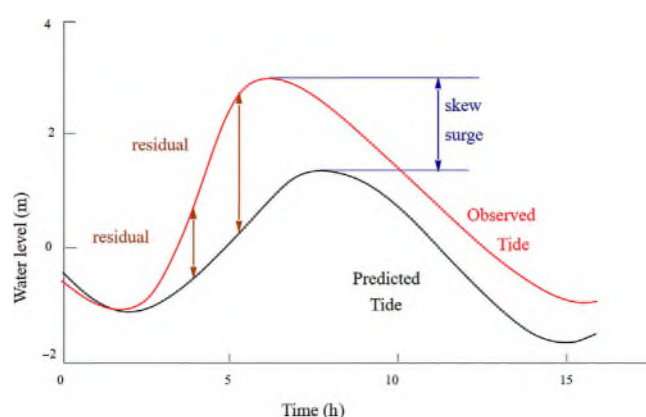


FIGURE A7 Diagram of skew surge showing the difference between predicted tide and observed tide.

surge analysis. For Surge Quality Control, sites with possible datum shifts and levelling uncertainties not suitable for long term trend analyses are included. This provides a

larger dataset to analyse the storm surge, but as a result levels may not be comparable between sites or year-to-year.

TABLE A5 Skew surges from highlighted storms.

Storm name	Dates	Storm surge
Unnamed	7–10 January	Widespread moderate (0.5–1 m) skew surge on west and east coasts of UK, but occurred during moderate tides, no especially high levels.
Gerard (Météo-France)	14–16 January	Surge mostly in southern North Sea, up to Sheerness 1.0 m skew surge.
Otto (DMI)	17–18 February	Small <0.5 m skew surge in west of Scotland and 0.5–1 m skew surge in east coast England later on 17 February. Surge residual in the North Sea was mostly due to phase shift and did not result in a substantial skew surge. Neap tide, small total water levels.
Larisa (Météo-France)	12–14 March	Surge in Irish Sea, skew surge over 0.5 m everywhere and Heysham 0.8 m, Newport 1.1 m. But due to the date being on neap tides, no high total water levels.
Unnamed	22–25 March	Widespread moderate (0.5–1 m) surge especially on west and north coast of UK. Although not the biggest surge, or a named storm, the coincidence of the March 23rd event with the spring tide led to this being the highest recorded level at 18 sites in Scotland and the west coast of England and Wales, as far south as the Severn.
Matthis (Météo-France)	29 March to 1 April	Skew surge approaching 1 m in English Channel, and widespread moderate skew surge on west coast of UK. Highest recorded 0.9 m (Jersey) but occurred during moderate tides, no especially high levels. Followed by negative surge particularly in Severn (–0.5 m negative skew surge at Hinkley, Avonmouth, Newport).
Noa (Météo-France)	11–12 April	Neap tide, no significant levels. Skew surge in Irish Sea, up to 0.9 m at Newport.
Antoni	5–6 August	No widespread storm surge resulting from this storm.
Betty	18–19 August	Moderate skew surge (~0.5 m) on west and south coasts. Negative surge all week in the Severn.
Unnamed	19–21 September	Skew surge (<1 m) western Scotland and negative skew surge in south east coast of England. Neap tides.
Agnes	27–28 September	High skew surge in north west England (Workington 0.9 m), Scotland (Millport 0.9 m, Portpatrick 0.8 m) and Northern Ireland (Bangor 0.8 m). Agnes led to the highest totals of the year in Northern Ireland where the tidal range is small. Close to 1 October spring tides, that is, 3 days later would have been 1 m higher at Heysham.
Babet	18–21 October	Widespread skew surge (0.5–1 m) in the west of the UK. This event notable for extreme low waters in the German Bight.
Ciarán	1–2 November	Widespread moderate (0.5–1 m) skew surge on all coasts of UK, however, tides were moderate by the day of this storm and the still water level was not significant at most sites. Modelled skew surge at Jersey around 1 m, and Jersey was severely affected by wave damage but unfortunately no tide gauge data was transmitted during that week. Highest level of the year recorded at Bournemouth.
Debi	12–13 November	Surge in the Irish Sea, west coast of England and Wales, 0.5–1 m skew surge and particularly at Heysham 1 m and Workington 1 m. However moderate tides so not extreme levels.
Elin	8–9 December	No widespread storm surge during this event, Fergus followed immediately.
Fergus	10–11 December	Skew surge 0.5–1 m in Irish Sea. Neap tides, no high levels.
Pia (DMI)	21–22 December	Pia had the highest skew surges of the year with >1 m widespread across the North Sea (observed 1.2 m Cromer, 1.5 m Lowestoft, 1.4 m Harwich, 1.2 m Sheerness and 1 m Dover). Neap tide, but still was the maximum total sea level for the year at Harwich and Lowestoft in East Anglia.
Gerrit	27–29 December	Gerrit had widespread positive skew surge (0.5–1 m) in the west of the UK, distinctive negative surges (approaching –1 m) in the North Sea. Combined with moderate spring tide this event led to the highest levels of the year at Millport (near Glasgow).

Skew surge is the difference between the peak observed tide and peak astronomical tide, which is the part that can be predicted months in advance (Figure A7). It is usually slightly smaller than the ‘non-tidal residual’ that is sometimes reported, but is a more robust measure of peak impact, being independent of timing (Williams et al., 2016).

Table A5 lists named storms and other events with a skew surge of more than 0.5 m observed at at least eight tide gauges. Table A6 lists other high levels (the counties of gauge locations are omitted).

Maximums at Avonmouth and Barmouth were not recorded in 2023, due to frequent gauge problems. In particular Avonmouth is reliant on a radar gauge and does not always record the top of the tidal cycle.

A18 | Phenology data

Nature’s Calendar, run by the Woodland Trust, has been collating information on the timing of the seasons for 25 years. Furthermore, it has built up a considerable database of older data, derived from a number of sources. Current data, recorded by citizen scientists across the UK, identify dates on which particular phenological events are observed. Here we show UK mean dates for the first unfolded leaf (‘first leaf’) in spring and first bare tree (‘bare tree’) in autumn for four common shrub or tree (woody) species: Elder (*Sambucus nigra*); Hawthorn (*Crataegus monogyna*); Pedunculate Oak (*Quercus robur*); Silver Birch (*Betula pendula*). We also show first and last lawn cutting dates in spring and autumn respectively. We

TABLE A6 Other high levels.

Vernal equinox spring tide	22 February	Highest levels of 2023 at Immingham, Lincolnshire. Coastal erosion at Hemsby, Norfolk.
Autumn spring tide	30 September	Highest levels of 2023 at several east coast sites (Dover, Cromer, Whitby, North Shields) and Newport. No particular storms but on September spring tides.
Autumn spring tide	28 October	Highest levels of 2023 in south and south-west England and Wales (except upper Severn). Milford Haven, Mumbles, Ilfracombe, St. Marys, Newlyn, Plymouth, Weymouth, Portsmouth, Newhaven, Sheerness. Not a named storm but a spring tide, combined with a sustained period of high sea-level throughout late October and early November.



FIGURE A8 Examples of phenology indicators: (a) Pedunculate Oak (*Quercus robur*) ‘first leaf’; (b) Wood Anemone (*Anemone nemorosa*) first flowering; (c) Brimstone butterfly (*Gonepteryx rhamni*) first appearance; and (d) Common Frog (*Rana temporaria*) spawn first appearance.

report further spring events as follows: first flowering dates for Hazel (*Corylus avellana*), Lesser Celandine (*Ficaria verna*), Wood Anemone (*Anemone nemorosa*), and Bluebell (*Hyacinthoides non-scripta*); first appearance dates for 7-spot Ladybird (*Coccinella septempunctata*), Brimstone butterfly (*Gonepteryx rhamni*), Red-tailed Bumblebee (*Bombus lapidarius*) and Speckled Wood butterfly (*Pararge aegeria*); first nest building by the Blackbird (*Turdus merula*), the appearance of Common Frog (*Rana temporaria*) spawn, first observation of Chiffchaff (*Phylloscopus collybita*) and of Swallow (*Hirundo rustica*). Figure A8 shows examples of some of these indicators. Dates are converted to day of the year (day numbers from 1 January) before manipulation and data analysis, with the mean date the average of all submitted records. No geographic adjustment is applied.

Dates for the baseline period (1999–2022), derived from annual means, are compared with those for 2023. To assess the relationships with temperature for each spring plant event, we have regressed the 1999–2023 annual mean dates on a three month mean CET for the month incorporating the mean date and the preceding 2 months. Past experience suggests that a 3-month block of temperatures is broadly appropriate for plants. For the animal events we have used the mean of those months that appear most influential. We report the response to a 1°C increase in the selected months. We also compare 1999–2023 annual means of bare dates, and last lawn cutting, to October mean CET, since experience has shown that the influential window for autumn events is much shorter. CET provides a reasonable representation of the inter-annual temperature variations across the UK, for comparison with the UK-wide phenology indicators. By necessity, the phenology data presented in this report are relatively short (i.e., <30 years), and therefore, in comparison to other climate series, less able to detect trends.

APPENDIX B: TIME-SERIES, TRENDS AND UNCERTAINTY

B1 | Time-series and trends shown in this report

The time-series in this report are plotted on either actual or anomaly scales and include a smooth trend. This means that both annual variability and the longer-term trend (removing short-term variability) can be viewed simultaneously. For some series, there may be few individual years that fall close to this long term trend; and many or even most years may fall well above or well below.

The smooth trend-lines are constructed using a weighted kernel filter of triangular shape, with 14 terms either side of each target point. The kernel defines how

much weighting the terms either side of a point in the series have in estimating the smoothed average at that point; in this case the triangular shape using 14 data points either side means that data points further away have less influence. The effect is to smooth out the year-to-year variations and estimate any longer-term variations in the data. The kernel is reflected at the ends of the time series to enable the trend lines to cover the full length of the series. However, this process of reflection will tend to damp any trends at the ends of the time series, so the trend line for the first and last decade of each series should be interpreted cautiously. The method of creating smoothed trend-lines using a ‘non-parametric regression’ is described in Mudelsee (2019), who describes the advantages and disadvantages of various possible statistical approaches in trend analysis of climate time-series. Further discussion is provided in de Valk (2020).

Climate records at individual stations may be influenced by a variety of non-climatic factors such as changes in station exposure, instrumentation and observing practices. Issues of changing instrumentation and observing practices will tend to be of greater importance early in the series, particularly before the 20th Century. In contrast, station exposure issues related to urbanisation, which may for example affect temperature-related variables, may be of greater importance in the late part of the series from the mid-20th Century, although this is likely to vary on a station by station basis—for example, whether a station is located in the centre of a large city or nearer the periphery, the latter being more likely to have changed over time. Identifying and correcting for such factors in climate monitoring is referred to as homogenization. This aims to ensure any biases introduced into the observations caused by these non-climatic factors are removed and the climate series are self-consistent through time. Homogenization may be considered as distinct from quality control—which is the identification and removal of errors in the observations (described in Appendix A.6). Some homogenization has been undertaken for some series presented in this report, such as the CET record, and the adjustment of sunshine records described in Appendix A.14. For most variables however the individual station data in this report have not been explicitly homogenized to account for these non-climatic factors.

B2 | Uncertainty estimates

Earlier studies have considered uncertainties in the gridded data and areal-averages based on a 5 km ‘legacy’ gridded dataset previously used for UK climate monitoring (Legg, 2011; Legg, 2015). The HadUK-Grid 1 km gridded dataset, while at a different resolution, use

same method of interpolation. The uncertainty estimates presented here will therefore be broadly representative although these numbers will not reflect recent additions to the dataset (particularly the recent addition of Rainfall Rescue data).

A systematic reappraisal of the findings of Legg (2011, 2015) in order to update our estimates of uncertainties in HadUK-Grid is required. A change that has been made in this report is that annual mean temperatures for the UK and countries are quoted to two decimal places throughout, as one decimal place is judged as overly coarse precision. The UK annual mean temperature for 2023 was 9.97°C, 0.83°C above the 1991–2020 average, whereas the value for 2022 was 10.03°C and 0.89°C above. If rounded to one decimal place, these values would both correspond to 10.0°C, but with respective anomalies of 0.8°C and 0.9°C. Legg, 2015 supports uncertainty in annual mean temperature being <0.1°C.

A key source of uncertainty is associated with spatial sampling, that is, the density of the observation network. In general, uncertainty ranges for areal-averages of monthly mean temperature, rainfall and sunshine increase in the past as the network density reduces. For rainfall, this spatial sampling has recently been greatly improved pre-1960 due to the inclusion of Rainfall Rescue data. The uncertainty estimates in these earlier studies have been adjusted upward to acknowledge other sources of error, for example observational errors such as random errors in instrument readings, calibration errors or structural uncertainty (the latter implying that alternative methods of analysis may produce slightly different results).

Table B1 lists 1 σ uncertainty (standard error) ranges for annual mean temperature, rainfall and sunshine for different periods in the legacy 5 km gridded dataset. Indicative date periods are presented here. These correspond to: the earliest years in the 5 km dataset where the availability of station data was generally lowest and uncertainty highest; a period in the dataset around the 1960s which for rainfall corresponds to a step increase in availability of station data and corresponding decrease in uncertainty (for monthly rainfall this step has been eliminated) and a relatively recent period in the dataset indicating current uncertainty. More comprehensive tables covering the full date range can be found in Legg (2015). We have applied a conservative reduction factor of $\sqrt{2}$ to convert monthly uncertainty ranges to annual. Uncertainty associated with individual months of the year cannot be considered independent but it is reasonable to assume that winter half-year biases are likely to be different in nature from summer half-year biases (Parker, 2010). Seasonal uncertainty ranges are likely to be similar to monthly uncertainty ranges presented in Legg (2015). Uncertainties in the CET and EWP series have also been investigated elsewhere (Parker, 2010; Parker & Horton, 2005; Simpson & Jones, 2012).

Uncertainties in areal rainfall statistics may potentially be large for small (county-sized) areas early in the series as the number of stations reduces, although this is particularly dependent on the spatial distribution. In general, rainfall will be affected to a much greater extent than temperature due to the much greater spatial variability, whereas temperature tends to be a much

Temperature (°C)

Year range	UK	England	Wales	Scotland	Northern Ireland
1910–1919	0.04	0.04	0.06	0.06	0.08
1961–1965	0.03	0.03	0.04	0.03	0.04
2006–2012	0.03	0.03	0.04	0.04	0.04

Rainfall (%)

Year range	UK	England	Wales	Scotland	Northern Ireland
1910–1919	1.2	1.2	3.0	2.8	3.7
1961–1965	0.3	0.3	0.6	0.5	0.8
2006–2012	0.4	0.4	0.9	0.7	1.6

Sunshine (%)

Year range	UK	England	Wales	Scotland	Northern Ireland
1929–1935	0.7	0.8	1.0	1.0	1.6
1959–1964	0.6	0.8	0.9	0.8	1.4
2005–2012	0.7	0.9	1.1	1.1	1.8

TABLE B1 The 1 σ uncertainty (standard error) ranges for annual T_{mean} , rainfall and sunshine for 5 km resolution 'legacy' gridded dataset.

smoother varying field. This means that ranking of years (e.g., the wettest autumn in the series for county X) may change as more observations from digitized data sources continue to be added to the dataset in the future.

B3 | Other sources of uncertainty

The summary rainfall statistics for the UK and countries presented in this report are based on an areal average of the rainfall total in mm, rather than an areal average of the rainfall anomaly field as a percentage. This is judged to be the simpler and more readily comprehensible statistic for the majority of users and is directly proportional to the total volume of rainfall across the country. However, it means that climatologically wetter areas of the UK have a greater influence on the overall UK summary statistic than the drier areas, rather than all equal-sized areas having equal influence (as would be the case using an areal average of the rainfall anomaly field). This introduces uncertainty because the rank of each year relative to the others may vary depending on which of these two metrics is chosen (Kendon & Hollis, 2014). It may also influence any trend in overall UK rainfall if this varies spatially between climatologically wetter and drier parts of the UK.

A further source of uncertainty in the rainfall data is introduced by measurement of precipitation which has fallen as snow. At manually read rain gauges the observer will measure precipitation equivalent of fresh snow fallen at 0900 UTC, whereas at automatic rain gauges any snow collected will be recorded when it subsequently melts; quality control of these data may then re-apportion this precipitation to previous days. However, inevitably snow measurement can be problematic, for example if wind eddies may carry snow over or blow it into or out of the gauge, in many situations estimation of precipitation from snow may be either underestimated or overestimated. This important limitation as noted for Figure 41 is acknowledged and investigated by Murphy et al. (2020). However, this now tends to be usually less of a problem than during colder, snowier years of earlier decades.

B4 | Coefficient of determination

The coefficient of determination, R^2 , as presented in this report is a measure of the strength of the linear relationship between a predictor variable and a dependent variable, where R is the correlation coefficient, based on a linear least-squares regression. The R^2 value is a statistical measure of how closely the dependent variable can be predicted from the predictor variable. An R^2 value of 1 would indicate a perfect correlation, in which the dependent

variable can be predicted without error from the predictor variable. An R^2 value of 0 would mean the predictor variable has no predictive value for the dependent variable. An R^2 value of 0.5 would mean that half of the variance in the dependent variable can be explained by variations in the predictor variable. R^2 values exceeding 0.9 for time-series in this report would indicate that they are very highly correlated. R^2 may also be expressed as a percentage.

B5 | Rounding

Values quoted throughout this report are rounded, but where the difference between two such values is quoted (e.g., comparing the most recent decade with 1991–2020), this difference is calculated from the original unrounded values. For internal processing purposes, unrounded values of area average statistics generated from the HadUK-Grid dataset are stored with a five decimal place precision for all variables and areas. See also Appendices A8 and B2.

APPENDIX C: USEFUL RESOURCES

C1 | Met Office

Annual State of the UK climate publications from 2014 <https://www.metoffice.gov.uk/research/climate/maps-and-data/about/state-of-climate>

UK climate information <https://www.metoffice.gov.uk/research/climate/maps-and-data>

HadUK-Grid information <https://www.metoffice.gov.uk/climate/uk/data/haduk-grid/haduk-grid>

The CET dataset is maintained by the Met Office Hadley Centre and can be downloaded at <https://www.metoffice.gov.uk/hadobs/hadcet/>

The EWP dataset is maintained by the Met Office Hadley Centre and can be downloaded at <https://www.metoffice.gov.uk/hadobs/hadukp/>

The HadSST4 dataset is maintained by the Met Office Hadley Centre and can be downloaded at <https://www.metoffice.gov.uk/hadobs/hadsst4/>

The HadCRUT5 dataset is maintained by the Met Office Hadley Centre and can be downloaded at <https://www.metoffice.gov.uk/hadobs/hadcrut5/>

Met Office forecast model data are available via Weather DataHub <https://datahub.metoffice.gov.uk/>

Met Office UK Storm Centre for named storms <https://www.metoffice.gov.uk/weather/warnings-and-advice/uk-storm-centre/index>

Met Office digital library and archive (for scanned copies of Daily Weather Summaries, Monthly Weather

Reports, British Rainfall, etc.) <https://digital.nmla.metoffice.gov.uk/>

Further information on data products available from the Met Office may be obtained by contacting the Customer Centre <https://www.metoffice.gov.uk/about-us/contact>

C2 | External links

The Met Office is not responsible for the content of external internet sites.

Access to HadUK-Grid dataset (open access) <https://catalogue.ceda.ac.uk/uuid/4dc8450d889a491ebb20e724debe2dfb>

Access to a copy of the Met Office Midas database is available to researchers on registration at <https://catalogue.ceda.ac.uk/uuid/220a65615218d5c9cc9e4785a3234bd0>

An open access version of the Met Office Midas database is available at <https://catalogue.ceda.ac.uk/uuid/dbd451271eb04662beade68da43546e1>

Bulletin of the American Meteorological Society (BAMS) State of the Climate Report <https://www.ametsoc.org/index.cfm/ams/publications/bulletin-of-the-american-meteorological-society-bams/state-of-the-climate/>

Centre for Ecology and Hydrology, National Hydrological Monitoring Programme, Monthly Hydrological Summaries for the UK <https://nrfa.ceh.ac.uk/monthly-hydrological-summary-uk>

Centre for Ecology and Hydrology, reports for major hydrological events <https://nrfa.ceh.ac.uk/occasional-reports>

Copernicus Climate Change Service (C3S) (2017): ERA5: Fifth generation of ECMWF atmospheric

reanalyses of the global climate. Copernicus Climate Change Service Climate Data Store (CDS), *date of access*. <https://cds.climate.copernicus.eu/cdsapp#!/home>

Environment Agency Water Situation Reports for England <https://www.gov.uk/government/collections/water-situation-reports-for-england>

Lamb weather types and UK Jenkinson Gale Index maintained by the University of East Anglia Climatic Research Unit <https://crudata.uea.ac.uk/cru/data/lwt/>

North Atlantic Oscillation (NAO) data maintained by the University of East Anglia Climatic Research Unit <https://crudata.uea.ac.uk/cru/data/nao/>

National Tidal and Sea Level Facility UK National Tide Gauge Network (owned and operated by the Environment Agency) <https://ntslf.org/data/uk-network-real-time>

Scottish Avalanche Information Service annual reports of the winter season <https://www.sais.gov.uk/sais-annual-reports/>

UK Health Security Agency heat mortality monitoring reports <https://www.gov.uk/government/publications/heat-mortality-monitoring-reports>

Weather at Oxford Radcliffe Meteorological Station monthly and annual reports <https://www.geog.ox.ac.uk/research/climate/rms/reports.html>

WMO Annual Bulletin on the Climate in region VI (Europe and Middle East) <https://www.dwd.de/EN/ourservices/ravibulletinjahr/ravibulletinjahr.html>

WMO guide to climatological practices https://library.wmo.int/index.php?lvl=notice_display&id=5668

AUTHOR INDEX

Carlisle, E., 1
Doherty, A., 1
Garforth, J., 1
Hollis, D., 1

Jevrejeva, S., 1
Kendon, M., 1
Matthews, A., 1
McCarthy, M., 1

Packman, S., 1
Sparks, T., 1
Williams, J., 1

IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON THE
BOURNEMOUTH SWANAGE MOTOR ROAD & FERRY LINK

REBUTTAL PROOF OF EVIDENCE – JANUARY 2025

PREPARED BY MICHAEL KEAN, CHAIRMAN TO THE BOURNEMOUTH SWANAGE MOTOR
ROAD AND FERRY COMPANY

Introduction

1. This proof of evidence is structured as follows:
 - a. Introduction and further concession
 - b. Ferry passenger levels - history and forecasts
 - c. The road toll
 - d. Discounts for multi-buy use
 - e. Unexpected costs (BH19 concession not taken into account)
 - f. The commercial loan necessary for a ferry replacement
 - g. The local bus service and sustainable travel
 - h. Miscellaneous points

Introduction and further concession

2. The Inspector has received a substantial number of responses. Many of these come from customers of the Ferry Company. The Ferry Company and the great majority of those making submissions to the Inspector have a shared goal: the long term continuity of the ferry well into the future to provide an important infrastructure link for the local community and those visiting this part of the country. The responses for the most part recognise that Parliament has not provided for the ferry to be provided as tax-funded infrastructure, but by a private company. The long term continuity of the ferry depends on the financial health of the Ferry Company.
3. The original application was made on 14 July 2024. The Ferry Company have listened to the concerns that local people have raised through formal

submissions to the Inspector and in a series of consultations and public meetings. In November 2024 the Ferry Company therefore proposed a modification to the application which offered to :

- a. delay the initial RPI increases by 12 months.
- b. reduce the initial impact of the regular traveller fare increases by spreading them over the initial 4 years.
- c. provide greater discounts to local people, by increasing the discounts on advance purchases

(see my first proof of evidence Appendix B dated November 2024).

4. We consider that the application as currently drafted fully complies with the statutory test of delivering neither substantially less nor substantially more than adequate to meet expenditure including a reasonable return. Nevertheless, we note that a particular concern that is expressed is in relation to the road toll impacting on those who live close to the ferry road, and who use the ferry road to access the local coast.
5. In order to meet this concern – while still seeking to meet the statutory test – the Ferry Company wishes to offer a significant concession to local people in respect of the road toll. The Ferry Company will offer annual free use subject to a small administration charge of the Ferry Road to anyone whose car is officially registered to the local BH19 postcode. This will be achieved by those who so wish coming to the Ferry Office and showing their V5C (Vehicle Logbook / Registration certificate) with a BH19 postcode for the vehicle. It will be renewed on an annual basis.
6. It is appreciated that there will be people who fall outside of this concession. However, it has been offered in an effort to meet some of the concerns of those who would be most affected by the road toll, while still being mindful of the statutory need to meet the financial needs of the company.

Ferry passenger levels – history and forecasts

7. I have noted that the Consortium takes issue with the forecast ferry passenger levels set out in the application. However, it will be noted that the Ferry Company's forecast is not based upon general external sources of information or predicted regional trends for road traffic. Instead, the Ferry Company's forecast is based upon detailed data of use of the ferry over the past 25 or so years but excluding unusual years such as Covid and years during which there was major mechanical failure. As set out by Mr Thomas in his first proof of evidence, these showed a slow but steady trend of decline in vehicle numbers.
8. We consider that the Consortium's suggested approach of assuming that passenger levels will increase over time lacks proper evidence and presents a significant risk. The evidence that the Consortium presents is (a) that observed traffic data on the A351 at Stoborough 'are returning' to pre-Covid 19 levels (Consortium PoE paragraph 3.8) and (b) that traffic growth forecasts published by the Department for Transport predicts car driver trips in Purbeck will increase by up to 5.95% by 2035.
9. However, first these are not useful sources of evidence to seek to demonstrate, as the Consortium does, that the passenger numbers using the ferry will increase. The obvious point is that the data relied upon by the consortium does not relate to traffic on toll roads or other paid infrastructure, but on free-to-use roads. The same data source shows that over the same period during which the passenger numbers for the ferry showed a decline, the number of cars on the local road increased.
10. Second, the Consortium seeks to rely on the 2023 figures for the A351 at Stoborough to show that traffic levels 'are returning' (but seemingly have not yet returned: see graph at page 15 of Consortium Proof of Evidence) to pre-Covid 19 levels. Yet in 2023, it must be remembered that that the Ferry was out of service

for two months, which will have forced people who otherwise would have used the ferry onto surrounding roads during that period.

11. However, while those who would otherwise have used the ferry would have to use the surrounding roads if they could not use the ferry, it does not follow that more vehicles using the free roads in Purbeck translates as more likely customers for the ferry. This can be demonstrated by the fact that while the Consortium's data from 1995 onwards shows an increase in traffic using the A351, the Ferry Company's data shows a decrease in traffic. In other words, the data shows that more cars on the A351 does not mean more cars on the ferry. In addition to the disconnect between numbers using free roads, and numbers using a paid service like the ferry, it must be remembered that many people using the A351 at Stoborough will not be travelling between Sandbanks and Studland.
12. As such, even if the Department for Transport forecast of greater traffic volumes on the A351 by 2035 proves to be correct there is nothing to say that this will mean more traffic on the ferry.
13. Third, it may be argued (and perhaps it is implied in the Consortium response) that the answer is to lower the prices on the Ferry, and that will result in significantly greater passenger numbers. However, plainly any price reduction needs to be sustainable. I would suggest that the data indicates that no sustainable price reduction is going to cause ferry passenger numbers to significantly increase over time. This can be seen by virtue of the fact that even the discounts approved in the 2021 Order have proved to be unsustainably large (in light of inflation and the increased use of multi-purchase discounts) and have not led to ferry passenger numbers bucking the historic decline: 2023/2024 levels are still significantly less than every year from 1997 to 2018 for Class F vehicles – Cars. In other words, even unsustainably large discounts have not resulted in passenger numbers returning to pre-pandemic levels or reversing the long-term reduction in passenger numbers.

14. I suggest this indicates that price is not the only factor affecting ferry usage, and there may be other reasons for changes from historic ferry usage relating to changing lifestyles following Covid 19, or other external factors. However, the point is, that it would not be safe to assume that passenger numbers using the ferry will increase in the future, even if ticket prices were lower (even unsustainably lower).
15. Fourth, the fact is that spaces on the ferry are a finite resource: only so many cars can be carried on each crossing, and the number of crossings that can be made per day is limited by loading, unloading and journey times. Prospective passengers also do not evenly distribute themselves across the day, but instead most want to travel in peak hours. It follows that while the roads may be able to accommodate these increasing numbers, the Ferry cannot. As I set out in my first proof of evidence the ferry is already frequently at capacity during peak periods, and indeed there are often lengthy queues with cars having to wait for several crossings before boarding. The large size of modern cars, compared with those even ten years ago, further restricts capacity at peak times. The need to wait in order to board, and risk of a longer wait, may well be further factors some cars use the road instead of the ferry, depending on their destination and the time at which they are travelling.
16. Fifth, the reduction in the use of the Ferry over time is consistent with the pattern seen more generally in other forms of transport for which a fare is paid, and for which there is a wait/timetable. I note that South Western Railway passenger numbers were 203.7m in 2019/20 but only 153.2m in 2023/4.¹ Domestic ferry passenger data, collected by the Government, show that passenger numbers in 2023 remained 10% lower than in 2019².

¹ <https://dataportal.orr.gov.uk/media/jgypaklz/south-western-railway-2023-24.pdf>

² <https://www.gov.uk/government/statistics/sea-passenger-statistics-all-routes-2023/sea-passenger-statistics-domestic-sea-passengers-2023#:~:text=In%202023%2C%20compared%20to%202022,14%25%20lower%20than%20in%202019>

17. Sixth, it will be noted that the Ferry Company has excluded the years ending 2019 to 2023 from the passenger number projections, but they still show a decline. Those years have been excluded because during each there were either abnormal / significant mechanical issues and / or refits resulting in the ferry being out of service and so reducing passenger numbers in those years. However, the reality is that even with careful maintenance and investment, a ferry will be at risk of occasional mechanical failure as history has shown. This risk of exceptional downtime is unpredictable and so has not been factored into the Ferry Company's projections, but that risk is nevertheless real and can occur. As such the Company's projections, if anything, may tend to overstate likely passenger numbers. This issue was succinctly described by the previous Inspector in her report "*while consistently expensive, the maintenance costs, and periods of time when the service cannot run, are otherwise not very predictable. This follows from the nature of the ferry as a complex mechanical craft. Outages of service caused by mechanical problems carry unpredictable high costs, as well as resulting in a complete loss of income*"³
18. Seventh, when it comes to projection of future passenger numbers there is an element of the unknown. If the Ferry Company's projections of passenger numbers – based on historic data – prove to be too conservative, and there is the increase in numbers the Consortium predicts, then the result will be that the Ferry Company's income will be somewhat higher than the projections made by the Company. The Company accounts are public and so the increase in income will be plain for all to see. Under the statutory scheme, any person or representative with a substantial interest may make an application for a revision of the fares. The Consortium of councils have shown that they can cooperate to take action and they would be an obvious candidate to make such an application if they considered it was merited. Hence there is a clear control mechanism.

³ File Ref: DPI/G1250/20/9 paragraph 7.6

19. In addition, the Ferry Company has publicly committed to not taking any dividends until the target amount to be paid into the Ferry Replacement Reserve that year is paid and will limit returns to a maximum of 6% of net asset value. Again, if the Ferry Company were to flout these public commitments, the Consortium, and any other interested person, could bring an application at which this could be considered, and the impact on fare levels determined.
20. By contrast, if the Consortium's forecasts were preferred by the Inspector, and proved to be too optimistic, then the Ferry Company would have faced several further years of losses, with unsustainably low fares, and insufficient passenger numbers. This would come on the back of the difficulties of Covid, inflation outstripping the fares set out under the 2021 Order, and the losses due to the large numbers of multi-buy discounts under that Order. The Ferry needs to be in operation by 2034, and the number of years in which the Ferry Replacement Reserve can be built up in order to allow that purchase are therefore limited. Another three years of losses will not be capable of readily being remedied by a further inquiry in, say 2028, and the increasing of fares at that point as there will likely simply not be enough time left to generate the required income.

The road toll

21. There are a number of reasons for reintroducing the road toll. The first reason is fairness to ferry users. There are costs associated with the construction and maintenance of the ferry road and at present those costs are not borne by all those who use the road, but only by the ferry users. Resurfacing works will be required for the road in the future, these costs have not been factored into the Company's projections, but they will be significant. As such it is fair that a contribution towards this expenditure is made by all those who use the road.
22. The second reason is that the projected income from the road toll will provide an additional income source without much in the way of increased expenditure. It has been suggested that the projected level of income expected from the road toll is not significant in the overall accounts. However, that overlooks the fact that

more of the road toll income will result in profit: in other words the margin on that income is significantly greater than ferry income. Given the low levels of profits the Ferry Company has had in recent years, this extra income will be a valuable contribution, helping to ensure that the necessary contributions to the Ferry Replacement Reserve can be made.

23. The road toll projections have been verified by regular spot counts being taken by the Ferry Company for 6 June to 15 December 2024. The road toll projections are based upon the Company's experience of usage of the Ferry Road combined with spot checks of actual numbers currently using the Ferry Road and a number of other factors:

- a. We would expect there to be a reduction in the number of vehicles on the road once the road toll is charged, compared with the current numbers.
- b. We would not expect large numbers of people who pay the road toll to leave their car there for only short periods of time, instead it is more likely to attract those leaving their car for the day. This is as the proposed £6.26 charge compares favourably with the large nearby National Trust car park cost £12 for the day. However, the £6.26 charge is more than the National Trust £5 charge to those who are parking less than 2 hours. The National Trust charges £5 for up to 2 hours, £8 for up to 4 hours and £12 for all day in the summer when demand for parking is at its highest.
- c. We would expect that the road toll will mainly be borne by visitors to the area. As set out above, immediate neighbours in the BH19 postcode will be entitled to use the road for free. Obviously, those who use the Ferry to cross and then leave their car will already be able to do so at no extra cost. For those who live further afield but still regularly leave their cars on the Ferry Road, e.g. dogwalkers who do not live in BH19 or on the other side of the Ferry Link, we think they

would be more likely to avail themselves of National Trust membership and so use the large nearby National Trust car parks as an included part of their membership at no additional charge. I note National Trust Membership is currently £91.20 per year for an individual, making it very cost effective for those visiting Studland Bay frequently.

24. The Ferry Company's road income projections are at Appendix E and the spot check data is at Appendix E1.
25. It will be appreciated that the estimation based upon the spot checks is not an exact science given the above features. However, we consider that it provides a reasonable and neither overly optimistic nor pessimistic basis for forecasting road toll income.
26. In relation to the level of the road toll, I have set out the National Trust's prices above. Sandbanks Pay and Display Car Park charges £5.70 for two hours, £8.70 for three hours, £12.40 for four hours, going up to £22.70 for fourteen hours in the summer months.
27. The Consortium have criticised the absence of capital costs for the introduction of an ANPR system being included in the Ferry Company's projections and have said that the assumption that an enforcement company would provide the staff and technology for 7.5% of revenues is questionable. However, that figure is what has been stated to be likely following discussions with appropriate enforcement companies entering into a sufficiently long contract, in addition to the enforcement company being entitled to any penalty income that may be payable. The 7.5% costs are taken account of in the calculation of the predicted overall income from the Road Toll as can be seen from the table I have appended above at Appendix E. As such the road toll would be very cost effective with only a small amount of the road toll revenue being paid to the enforcement company.

28. A number of legal issues relating to the road toll have been raised. I will leave it to the Ferry Company's legal representatives to make submissions in relation to those matters.

Discounts for multi-buy use

29. A number of the submissions received by the Inspector relate to the discounted fares for multi-buy use, essentially requesting that there should be greater discounts, beyond even the Company's revised proposal made in November 2024.

30. However, as I set out in my previous statement, the previous discounts set out in the 2021 order have proved to be excessive and unsustainable. The experience from the 2021 order shows that the greater the gap between the full single fare cost and the discounted multi-buy fares, the greater the proportion of users will choose the multi-buy fare over the single fare. This change in behaviour causes the average payment per passenger to decline significantly resulting in less than predicted income. This then leads to the need for a further application seeking an increase in fares.

31. The objectors' arguments that there should be greater discounts essentially are asking the Inspector to reduce the costs of those who travel regularly and can afford the upfront cost of a multibuy ticket by increasing the cost to those who buy single tickets. This should not be seen simplistically as preferring locals to visitors.

32. First, not all locals will use the ferry regularly. Some will travel less frequently and will only use the ferry when they have an occasional need to do so, for example perhaps an elderly local resident attending a hospital appointment. Such a person would be likely to buy a single ticket.

33. Secondly, and conversely, not all those who buy multi-purchase tickets are local residents. The Ferry Company's own analysis of those who buy multi-purchase tickets shows that a significant number live outside the BH postcode.
34. Thirdly, not all those who do have to travel regularly will necessarily be in a financial position to buy the most heavily discounted tickets. They may be more likely to pay single fares to avoid the upfront cost of a multibuy tickets.
35. Fourthly, many objectors, including the Consortium have recognised how important tourism is to the local area. Many local businesses depend on tourists using the ferry to access their business. Asking for an increase in single fares to subsidise greater discounts on multibuy fares is likely to impact on the willingness of tourists to use the ferry.
36. A number of examples have been cited by the Consortium (in Appendix 2 to its Proof) where there are larger discounts given than those proposed in the Company's revised application. However that shows only one small part of the picture given the many differences between those examples and the present chain ferry link.
37. Dartmouth Lower Ferry, Cowes Floating Bridge, the Torpoint Ferry, the Mersey Ferry are owned and operated by local authorities or by bodies controlled by local authorities, not by private companies.
38. The Applicant's ferry is a larger ferry (carrying more cars) than all the other ferries with the sole exception of the Torpoint Ferry which appears to be loss making.⁴
39. In my view it is simplistic to ask the Inspector to rely upon the headline discounts applied to these other ferries without any analysis of the underlying finances of

⁴ <https://www.tamarcrossings.org.uk/wp-content/uploads/2024/11/TBTF-Statement-of-Accounts-2023-24.pdf>

these other operators, or the costs of running those other ferries. While it should go without saying, it appears to be necessary to point out that the level of discount that is financially sustainable on one ferry cannot be assumed to be sustainable on another.

Unexpected costs – the need for headroom

40. In running the Ferry Company there are inevitably unexpected costs and unexpected reductions in income.
41. Unexpected costs can take many forms but include major mechanical failure (which result in both increased expenditure and decreased income due to service suspension) as well as changes made by central government, such as the recent increases in Corporation Tax, Employer National Insurance and in the National Minimum Wage. The latter change impacts not only the most junior employees' pay but has a domino effect up into the salaries of the more senior employees. The changes in NI and wages have all been introduced by the Government since the application was brought in July 2024 and have now been factored into the calculations.
42. Unexpected reductions in income can result from unusually poor weather (such as a run of wet summers). In addition changes in passenger behaviour due to broader changes in consumer behaviour impact the Ferry, for example a reduction in tourist spending. I note that Swanage tourism data for 2022 shows that tourism spend in that year was £38.6m compared with £44.2m in 2019.
43. The unexpected nature of these economic pressures all underscore the need for there to be some financial headroom in order for the Ferry Company to be sustainable in the long run. We consider that those who press for ever greater discounts and lower fares fail to take this properly into account.

The £5m commercial loan statutory cap

44. A number of objectors have asked the Inspector to propose or endorse changes to the current statutory limit on the Ferry Company. It is anticipated that the Inspector would have no intention of entertaining such a thing, given it goes outside of her remit. The Inspector at the last inquiry made the same point “*A number of other matters were raised by objectors which are beyond the scope of this inquiry ... There is no scope either to secure any change in the Acts under which the Ferry Company has to operate to allow it to borrow more than the £5 million limit imposed by statute*”⁵ However, in light of these surprising requests, made even by the Consortium, it is worth reiterating that what the legislation does is impose a £5million upper limit on the Company’s borrowing powers. The legislation does not thereby guarantee that the Ferry Company will be able to persuade a commercial lender to lend it that money.

45. The Ferry Company is confident that if the application is refused, and the 2021 Order remains in place, then it is very unlikely to be able to persuade a commercial lender to lend anything approaching £5million. The Consortium will be aware that in evidence at the previous application (and included now at Appendix F) was a letter from Handelsbanken Plc dated 23 April 2019 to the Ferry Company’s directors in which the bank stated that ‘*we are unable to offer the funding facilities requested at this time*’. The bank pointed out that the various statutory provisions would cause a lender to have significant concern about its ability to enforce any loan against the Ferry’s assets. The bank’s position has not changed and a further letter from Handelsbanken Plc dated 2 January 2025 is also at Appendix F.

46. In addition, while a replacement ferry has an enormous cost to the Ferry Company, its residual value to any lender at Day 1 after purchase is very limited. The new ferry will be, like the old ferry, bespoke, having been designed uniquely

⁵ File Ref: DPI/G1250/20/9 paragraph 7.58

for the waterway it serves, and so will not be something that would attract any great value were it to be sold (even if that were legally possible) as there would be no market for it. It follows that the new ferry would not be good security for any loan. Similarly, in response to the suggestion that ownership of the Ferry Company shares could serve as security (with a mortgage given against those shares), the representative of Handelsbanken Plc observed *'It is unclear what the demand will be for such shares on the open market'*.

47. As such any loan would be treated by the lender as being an unsecured loan when it comes to the applicable rate. In my long experience of business borrowing a rate of around 4% over base rate would be realistic for an unsecured loan. Based upon a base rate of 4%, (Bank of England Base Rate is currently 4.75%) that would mean a total rate of 8%. Borrowing of £5million would mean annual interest payments alone of £400,000.
48. Again in my experience of business borrowing, any bank is going to be expecting there to be at least 2.5:1 ratio between profit and interest costs. In the example given that would mean they would be looking for consistent annual pre-tax profit of £1,000,000. Currently the profit level is much lower than this. Across the last four years there were net losses in two years. Average profit before tax across the last four years was £271,951 and that was before payments into the Ferry Replacement Reserve are taken into account. Transfers to the FRR were more than Profit Before Tax in those years when there was any profit.
49. It has also been suggested by an objector that finance leasing should be used to purchase the new ferry. In a finance lease a finance house will buy the asset from the manufacturer and lease it to the operator or lessee. The Lease requires the lessee pays regular instalments equivalent to the full value of the asset over the term of the lease plus a return on capital to the lessor. At the end of the lease, after the final payment has been made, the lessor will usually scrap the asset.

50. I know of no finance house that would be willing to commission in advance the approximate £18 million construction cost of a bespoke chain ferry in order to lease it to a single potential operator over a period of 35-40 years when that operator is restricted by Act of Parliament as to how much it can charge in tolls or make as a return during that leasing period.
51. Further any finance house would inevitably require security that the Ferry Company could meet the lease payments over the life of the new ferry. Given that the ferry's value on the market is very low or nominal (given there is no market for the bespoke ferry manufactured for this particular stretch of water) the vessel itself will offer no security. Again, by law, the Ferry Company cannot offer security in excess of £5 million.
52. On a related note, a number of objectors have implied, or stated, that the Ferry Company is subsidising the wider group companies. That is emphatically not the case. As explained in my previous proof, the Ferry company stopped paying management fees to its group companies in 2022, paying only the direct costs of the Directors in relation to the running of the Ferry Company, ensuring in a very clear manner that the costs borne by the Company are those incurred by the Company. The Ferry Company has not paid a dividend since FYE 2018.

The local bus service and sustainable travel

53. The Consortium have said that it is concerned that, as it alleges, the Ferry Company is no longer providing priority to the Purbeck Breezer 50 public bus service. I addressed this point in my previous proof of evidence (see paragraph 72- 75 of my first proof of evidence). As I explained in that previous proof the Ferry Company does give priority to buses but buses are sometimes blocked by traffic at busy times when, for safety reasons, they are unable to pass queuing traffic by traffic on the other (wrong) side of the road. At a site meeting in April 2023 between the Ferry Company and the Bus Company, it was left with the Bus Company representative saying 'leave this with me and I will come back to you', but the Ferry

Company have heard nothing more since from the Bus Company until its recent public objection.

54. It may be that if the road toll results in fewer cars on the side of the Ferry Road then the buses are better able to take advantage of the priority they enjoy.

55. The Consortium has provided no evidence in relation to its continued assertion that, contrary to the account given by me in my proof of evidence, the Ferry Company does not give buses priority. The Consortium's assertion is simply wrong.

56. The Consortium has also said that its member councils have certain policies relating to promoting 'improved active travel' and in its view the Ferry Company should subsidise certain classes of user, such as foot passengers and pedal bike users, more in order to advance the policies of the Consortium: see para 4.4 of Consortium Proof.

57. The Inspector will form her own view of the relevance of those matters. However, it is necessary to analytically question whether foot passengers are truly engaging in 'active travel'. The Inspector will appreciate that the ferry is in a remote location, and Ferry Road alone is 2.5 miles long. There are few people living within walking distance of the Ferry. As such, few foot passengers walk down Ferry Road to use the ferry. Instead, the great majority will drive down Ferry Road before parking and then board the ferry on foot for the crossing only. Indeed <https://www.swanage.co.uk/> states '*If you're staying in Swanage and you want to make a day trip to Sandbanks, you can park here at Shell Bay and take the ferry over to the Sandbanks side as a foot passenger.*'⁶

58. The last time that foot passenger and bicycle / motorcycle fares were increased was 2009. The fare table of the 2009 statutory instrument is appended to this proof of evidence as Appendix G. The Ferry Company proposes only that the real cost

⁶ <https://www.swanage.co.uk/>

of these fares is kept constant, i.e. raising them only by inflation. The alternative proposed by the Consortium would uniquely shield those users from the inflation faced by everyone else, and the company, at the expense of the other classes of ferry user. It is not fair and is not financially sustainable.

Miscellaneous points

59. The Consortium has proposed that CPI be adopted for toll increases, but with a 3% maximum cap. This is despite the fact that the Ferry Company's costs have consistently been significantly above even (typically higher) RPI. If there were to be a period of higher than expected inflation, the Ferry Company would be fully exposed to that when it comes to its costs but would be unable to charge tolls reflective of the rise in inflation. This would mean that, in real terms the Company would be required to lower the real cost of tickets at a time when it would be facing higher than expected costs. Respectfully, this is one example of how the Consortium's proposals do not properly grapple with the need to ensure the financial survival of the Ferry Company. If such an occasion of high inflation were to happen again, with a cap on inflationary increases, it would likely result in the need for a further application to increase tolls.

60. Contrary to the assertions of various objectors, The Ferry Company's property, that is the terminals and Ferry Road, do not form part of a UNESCO World Heritage site, specifically they are not part of the coastline from Swanage to Studland Bay.

61. I can say from my own knowledge that the Ferry Company used to collect a specific road toll until the early 1990s. I remember the road tolls being collected from the Knoll Hill Toll Box, a blue wooden hut with a felt roof (much like our Toll Hut on Sandbanks) in the centre of the road. In the late 1980's that Toll Box was replaced by a brick structure with tiled roof which also had the addition of vehicle barriers – all very similar to the current toll boxes at Shell Bay.

62. When the toll boxes were moved, to their present location, the brick structure was dismantled in the mid 1990's and the materials were salvaged to be used to build a small shed to the south of the current ferry offices to house a generator.
63. I first worked for the Ferry Company as a ticket & toll collector / deck hand. It was the summer of 1988 from June to September. It was the best summer of my life and I was only too keen to return to work there later that year in December. Two members of staff who worked with me in 1988 (Anthony 'Tony' Smith & Matthew Matt' Edwards) are still with the business to this day.
64. My duties back then included working in the Knoll Hill Toll Box before the implementation of an electronic tolling system (in the early 1990's) at Shell Bay. This replaced the original 1920's numbered paper ticket system. The old paper tickets were a complicated set up where not only was the Road Toll collected / paid for separately from ferry tolls but so were passengers in vehicles additional to the driver. This was quite an onerous and time-consuming task for us Toll Collectors as well as expensive for bus & coach operators.
65. The new electronic toll system sped up the process for staff and travellers alike and also removed elements of fraud to benefit the Company.
66. I appreciate many objectors, like me, recall the old location of the Knoll Hill Toll box and the congestion it historically caused but I can assure the Inquiry there is absolutely no intention to reinstate the toll box back at Knoll hill. The road toll will be monitored using ANPR.

**IN THE MATTER OF THE APPLICATION TO INCREASE TOLL CHARGES ON
THE BOURNEMOUTH-SWANAGE MOTOR ROAD & FERRY LINK**

Appendices to the Rebuttal of Michael Kean.

Chairman To The Bournemouth-Swanage Motor Road and Ferry Company

Appendices	Page Number
Appendix E Road Income Projections	2 - 6
Appendix E1 Spot Check Data	7 - 14
Appendix F Handelsbanken PLC Letters	15 - 18
Appendix G Extract 2009 S.I.	19 - 21

Appendix E

Ferry Road Potential Revenue Calculator

High (1 June - 31 August)	Tariff	Occupancy	Total	Mid (01 September - 30 November)	Tariff	Occupancy	Total	Low (01 December - 28 February)	Tariff	Occupancy	Total
01/06/2021	£6.26	35	£219.10	01/09/2021	£6.26	25	£156.50	01/12/2021	£6.26	10	£62.60
02/06/2021	£6.26	35	£219.10	02/09/2021	£6.26	25	£156.50	02/12/2021	£6.26	10	£62.60
03/06/2021	£6.26	35	£219.10	03/09/2021	£6.26	25	£156.50	03/12/2021	£6.26	10	£62.60
04/06/2021	£6.26	35	£219.10	04/09/2021	£6.26	25	£156.50	04/12/2021	£6.26	10	£62.60
05/06/2021	£6.26	35	£219.10	05/09/2021	£6.26	25	£156.50	05/12/2021	£6.26	10	£62.60
06/06/2021	£6.26	35	£219.10	06/09/2021	£6.26	25	£156.50	06/12/2021	£6.26	10	£62.60
07/06/2021	£6.26	35	£219.10	07/09/2021	£6.26	25	£156.50	07/12/2021	£6.26	10	£62.60
08/06/2021	£6.26	35	£219.10	08/09/2021	£6.26	25	£156.50	08/12/2021	£6.26	10	£62.60
09/06/2021	£6.26	35	£219.10	09/09/2021	£6.26	25	£156.50	09/12/2021	£6.26	10	£62.60
10/06/2021	£6.26	35	£219.10	10/09/2021	£6.26	25	£156.50	10/12/2021	£6.26	10	£62.60
11/06/2021	£6.26	35	£219.10	11/09/2021	£6.26	25	£156.50	11/12/2021	£6.26	10	£62.60
12/06/2021	£6.26	35	£219.10	12/09/2021	£6.26	25	£156.50	12/12/2021	£6.26	10	£62.60
13/06/2021	£6.26	35	£219.10	13/09/2021	£6.26	25	£156.50	13/12/2021	£6.26	10	£62.60
14/06/2021	£6.26	35	£219.10	14/09/2021	£6.26	25	£156.50	14/12/2021	£6.26	10	£62.60
15/06/2021	£6.26	35	£219.10	15/09/2021	£6.26	25	£156.50	15/12/2021	£6.26	10	£62.60
16/06/2021	£6.26	35	£219.10	16/09/2021	£6.26	25	£156.50	16/12/2021	£6.26	10	£62.60
17/06/2021	£6.26	35	£219.10	17/09/2021	£6.26	25	£156.50	17/12/2021	£6.26	10	£62.60
18/06/2021	£6.26	35	£219.10	18/09/2021	£6.26	25	£156.50	18/12/2021	£6.26	10	£62.60
19/06/2021	£6.26	35	£219.10	19/09/2021	£6.26	25	£156.50	19/12/2021	£6.26	10	£62.60
20/06/2021	£6.26	35	£219.10	20/09/2021	£6.26	25	£156.50	20/12/2021	£6.26	10	£62.60
21/06/2021	£6.26	35	£219.10	21/09/2021	£6.26	25	£156.50	21/12/2021	£6.26	10	£62.60
22/06/2021	£6.26	35	£219.10	22/09/2021	£6.26	25	£156.50	22/12/2021	£6.26	10	£62.60
23/06/2021	£6.26	35	£219.10	23/09/2021	£6.26	25	£156.50	23/12/2021	£6.26	10	£62.60
24/06/2021	£6.26	35	£219.10	24/09/2021	£6.26	25	£156.50	24/12/2021	£6.26	10	£62.60
25/06/2021	£6.26	35	£219.10	25/09/2021	£6.26	25	£156.50	25/12/2021	£6.26	10	£62.60
26/06/2021	£6.26	35	£219.10	26/09/2021	£6.26	25	£156.50	26/12/2021	£6.26	10	£62.60
27/06/2021	£6.26	35	£219.10	27/09/2021	£6.26	25	£156.50	27/12/2021	£6.26	10	£62.60
28/06/2021	£6.26	35	£219.10	28/09/2021	£6.26	25	£156.50	28/12/2021	£6.26	10	£62.60
29/06/2021	£6.26	35	£219.10	29/09/2021	£6.26	25	£156.50	29/12/2021	£6.26	10	£62.60
30/06/2021	£6.26	35	£219.10	30/09/2021	£6.26	25	£156.50	30/12/2021	£6.26	10	£62.60
01/07/2021	£6.26	45	£281.70	01/10/2021	£6.26	20	£125.20	31/12/2021	£6.26	10	£62.60
02/07/2021	£6.26	45	£281.70	02/10/2021	£6.26	20	£125.20	01/01/2022	£6.26	10	£62.60
03/07/2021	£6.26	45	£281.70	03/10/2021	£6.26	20	£125.20	02/01/2022	£6.26	10	£62.60
04/07/2021	£6.26	45	£281.70	04/10/2021	£6.26	20	£125.20	03/01/2022	£6.26	10	£62.60
05/07/2021	£6.26	45	£281.70	05/10/2021	£6.26	20	£125.20	04/01/2022	£6.26	10	£62.60
06/07/2021	£6.26	45	£281.70	06/10/2021	£6.26	20	£125.20	05/01/2022	£6.26	10	£62.60
07/07/2021	£6.26	45	£281.70	07/10/2021	£6.26	20	£125.20	06/01/2022	£6.26	10	£62.60
08/07/2021	£6.26	45	£281.70	08/10/2021	£6.26	20	£125.20	07/01/2022	£6.26	10	£62.60
09/07/2021	£6.26	45	£281.70	09/10/2021	£6.26	20	£125.20	08/01/2022	£6.26	10	£62.60
10/07/2021	£6.26	45	£281.70	10/10/2021	£6.26	20	£125.20	09/01/2022	£6.26	10	£62.60
11/07/2021	£6.26	45	£281.70	11/10/2021	£6.26	20	£125.20	10/01/2022	£6.26	10	£62.60
12/07/2021	£6.26	45	£281.70	12/10/2021	£6.26	20	£125.20	11/01/2022	£6.26	10	£62.60
13/07/2021	£6.26	45	£281.70	13/10/2021	£6.26	20	£125.20	12/01/2022	£6.26	10	£62.60
14/07/2021	£6.26	45	£281.70	14/10/2021	£6.26	20	£125.20	13/01/2022	£6.26	10	£62.60
15/07/2021	£6.26	45	£281.70	15/10/2021	£6.26	20	£125.20	14/01/2022	£6.26	10	£62.60

Mid (01 March - 31 May)	Tariff	Occupancy	Total
01/03/2022	£6.26	15	£93.90
02/03/2022	£6.26	15	£93.90
03/03/2022	£6.26	15	£93.90
04/03/2022	£6.26	15	£93.90
05/03/2022	£6.26	15	£93.90
06/03/2022	£6.26	15	£93.90
07/03/2022	£6.26	15	£93.90
08/03/2022	£6.26	15	£93.90
09/03/2022	£6.26	15	£93.90
10/03/2022	£6.26	15	£93.90
11/03/2022	£6.26	15	£93.90
12/03/2022	£6.26	15	£93.90
13/03/2022	£6.26	15	£93.90
14/03/2022	£6.26	15	£93.90
15/03/2021	£6.26	15	£93.90
16/03/2021	£6.26	15	£93.90
17/03/2021	£6.26	15	£93.90
18/03/2021	£6.26	15	£93.90
19/03/2021	£6.26	15	£93.90
20/03/2021	£6.26	15	£93.90
21/03/2021	£6.26	15	£93.90
22/03/2021	£6.26	15	£93.90
23/03/2021	£6.26	15	£93.90
24/03/2021	£6.26	15	£93.90
25/03/2021	£6.26	15	£93.90
26/03/2021	£6.26	15	£93.90
27/03/2021	£6.26	15	£93.90
28/03/2021	£6.26	15	£93.90
29/03/2021	£6.26	15	£93.90
30/03/2021	£6.26	15	£93.90
31/03/2021	£6.26	15	£93.90
01/04/2021	£6.26	20	£125.20
02/04/2021	£6.26	20	£125.20
03/04/2021	£6.26	20	£125.20
04/04/2021	£6.26	20	£125.20
05/04/2021	£6.26	20	£125.20
06/04/2021	£6.26	20	£125.20
07/04/2021	£6.26	20	£125.20
08/04/2021	£6.26	20	£125.20
09/04/2021	£6.26	20	£125.20
10/04/2021	£6.26	20	£125.20
11/04/2021	£6.26	20	£125.20
12/04/2021	£6.26	20	£125.20
13/04/2021	£6.26	20	£125.20
14/04/2021	£6.26	20	£125.20

Collection	
High	£26,949.30
Mid	£11,393.20
Low	£5,634.00
Mid	£11,518.40
Total Revenue	£55,494.90
Collection Fees	£4,162.12
Profit Contrib	£51,332.78

Charges	
High	£6.26
Mid	£6.26
Low	£6.26

Month	Users	Revenue
Jun	35	£6,573.00
Jul	45	£8,732.70
Aug	60	£11,643.60
Sep	25	£4,695.00
Oct	20	£3,881.20
Nov	15	£2,817.00
Dec	10	£1,940.60
Jan	10	£1,940.60
Feb	10	£1,752.80
Mar	15	£2,910.90
Apr	20	£3,756.00
May	25	£4,851.50
		£55,494.90 Total Revenue
		£4,162.12 Less Collection Fees
		£51,332.78 Profit Contribution

15/04/2021	£6.26	20	£125.20
16/04/2021	£6.26	20	£125.20
17/04/2021	£6.26	20	£125.20
18/04/2021	£6.26	20	£125.20
19/04/2021	£6.26	20	£125.20
20/04/2021	£6.26	20	£125.20
21/04/2021	£6.26	20	£125.20
22/04/2021	£6.26	20	£125.20
23/04/2021	£6.26	20	£125.20
24/04/2021	£6.26	20	£125.20
25/04/2021	£6.26	20	£125.20
26/04/2021	£6.26	20	£125.20
27/04/2021	£6.26	20	£125.20
28/04/2021	£6.26	20	£125.20
29/04/2021	£6.26	20	£125.20
30/04/2021	£6.26	20	£125.20
01/05/2021	£6.26	25	£156.50
02/05/2021	£6.26	25	£156.50
03/05/2021	£6.26	25	£156.50
04/05/2021	£6.26	25	£156.50
05/05/2021	£6.26	25	£156.50
06/05/2021	£6.26	25	£156.50
07/05/2021	£6.26	25	£156.50
08/05/2021	£6.26	25	£156.50
09/05/2021	£6.26	25	£156.50
10/05/2021	£6.26	25	£156.50
11/05/2021	£6.26	25	£156.50
12/05/2021	£6.26	25	£156.50
13/05/2021	£6.26	25	£156.50
14/05/2021	£6.26	25	£156.50
15/05/2021	£6.26	25	£156.50
16/05/2021	£6.26	25	£156.50
17/05/2021	£6.26	25	£156.50
18/05/2021	£6.26	25	£156.50
19/05/2021	£6.26	25	£156.50
20/05/2021	£6.26	25	£156.50
21/05/2021	£6.26	25	£156.50
22/05/2021	£6.26	25	£156.50
23/05/2021	£6.26	25	£156.50
24/05/2021	£6.26	25	£156.50
25/05/2021	£6.26	25	£156.50
26/05/2021	£6.26	25	£156.50
27/05/2021	£6.26	25	£156.50
28/05/2021	£6.26	25	£156.50
29/05/2021	£6.26	25	£156.50
30/05/2021	£6.26	25	£156.50
31/05/2021	£6.26	25	£156.50
Total			£11,518.40

Appendix E1

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
06-Jun	Thursday	14:45	68	dry	17
07-Jun	Friday	14:46	78	dry	17
08-Jun	Saturday	14:38	67	dry	18
09-Jun	Sunday	14:47	198	dry	19
10-Jun	Monday	14:40	37	dry	17
11-Jun	Tuesday	14:44	46	dry	17
12-Jun	Wednesday	14:30	33	dry	17
13-Jun	Thursday	14:31	27	wet	16
14-Jun	Friday	14:45	63	wet	17
15-Jun	Saturday	14:40	102	varied	17
16-Jun	Sunday	14:39	168	dry	18
17-Jun	Monday	14:41	103	dry	20
18-Jun	Tuesday	14:45	109	dry	21
19-Jun	Wednesday	14:37	98	dry	20
20-Jun	Thursday	15:10	176	dry	23
21-Jun	Friday	14:51	141	dry	22
22-Jun	Saturday	14:47	141	dry	24
23-Jun	Sunday	14:44	254	dry	25
24-Jun	Monday	14:50	188	dry	25
25-Jun	Tuesday	14:55	323	dry	26
26-Jun	Wednesday	14:45	384	dry	27
27-Jun	Thursday	14:38	284	dry	22
28-Jun	Friday	14:44	136	dry	21
29-Jun	Saturday	14:51	412	dry	23
30-Jun	Sunday	14:49	85	dry	22

Daily average: 149 (25 days) 20

Proportion not on ferry 30% **45** = Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Jul	Monday	14:45	65	dry	20
02-Jul	Tuesday	14:39	89	dry	21
03-Jul	Wednesday	14:41	33	dry	21
04-Jul	Thursday	14:43	94	wet/dry	22
05-Jul	Friday	14:43	103	dry	20
06-Jul	Saturday	14:39	98	wet/dry	21
07-Jul	Sunday	14:41	67	wet/dry	22
08-Jul	Monday	14:39	21	wet/dry	19
09-Jul	Tuesday	14:41	11	wet	20
10-Jul	Wednesday	14:41	110	dry	20
11-Jul	Thursday	14:47	143	dry	22
12-Jul	Friday	14:45	84	wet/dry	21
13-Jul	Saturday	14:43	96	wet/dry	21
14-Jul	Sunday	14:41	178	dry	22
15-Jul	Monday	14:43	42	wet	21
16-Jul	Tuesday	14:47	97	dry	23
17-Jul	Wednesday	14:45	182	dry	22
18-Jul	Thursday	14:39	254	dry	24
19-Jul	Friday	14:41	440	dry	27
20-Jul	Saturday	14:44	84	dry/wet	18
21-Jul	Sunday	14:39	143	dry	20
22-Jul	Monday	14:40	76	dry/wet	21
23-Jul	Tuesday	14:44	67	dry	22
24-Jul	Wednesday	14:44	73	dry	20
25-Jul	Thursday	14:45	11	wet	18
26-Jul	Friday	14:45	116	dry	22
27-Jul	Saturday	14:44	618	dry	24
28-Jul	Sunday	14:41	657	dry	25
29-Jul	Monday	14:39	562	dry	27
30-Jul	Tuesday	14:41	576	dry	29
31-Jul	Wednesday	14:45	437	dry	26

Daily average: 182 22

Proportion not on ferry 30% **54** = Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Aug	Thursday	14:40	326	dry	25
02-Aug	Friday	14:43	419	dry	28
03-Aug	Saturday	14:45	140	dry	23
04-Aug	Sunday	14:35	214	dry	22
05-Aug	Monday	14:41	134	dry	21
06-Aug	Tuesday	14:47	276	wet/dry	22
07-Aug	Wednesday	14:44	224	dry	20
08-Aug	Thursday	16:59	88	wet	19
09-Aug	Friday	14:45	249	dry	23
10-Aug	Saturday	14:45	187	dry	22
11-Aug	Sunday	14:37	742	dry	23
12-Aug	Monday	14:51	530	dry	28
13-Aug	Tuesday	14:44	148	dry	21
14-Aug	Wednesday	14:42	112	wet	21
15-Aug	Thursday	14:43	68	dry	21
16-Aug	Friday	14:44	272	dry	22
17-Aug	Saturday	14:47	314	dry	23
18-Aug	Sunday	14:39	298	dry	22
19-Aug	Monday	14:45	76	dry	20
20-Aug	Tuesday	14:40	140	dry	21
21-Aug	Wednesday	14:40	82	dry	20
22-Aug	Thursday	14:47	142	wet	19
23-Aug	Friday	14:44	197	dry	22
24-Aug	Saturday	14:47	72	wet	19
25-Aug	Sunday	14:45	154	dry	19
26-Aug	Monday	14:39	229	dry	21
27-Aug	Tuesday	14:48	189	dry	24
28-Aug	Wednesday	14:42	176	dry	23
29-Aug	Thursday	14:42	207	dry	22
30-Aug	Friday	14:43	206	dry	23
31-Aug	Saturday	14:43	94	dry	22

Daily average: 216 22

Proportion not on ferry 30% **65** = Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Sep	Sunday	14:39	111	dry	24
02-Sep	Monday	14:45	43	wet	21
03-Sep	Tuesday	14:40	112	dry	20
04-Sep	Wednesday	14:41	89	dry	22
05-Sep	Thursday	14:49	47	wet	17
06-Sep	Friday	14:45	116	wet	17
07-Sep	Saturday	14:47	49	wet	18
08-Sep	Sunday	14:42	88	wet	20
09-Sep	Monday	14:41	68	dry	18
10-Sep	Tuesday	14:41	37	dry	18
11-Sep	Wednesday	14:46	72	dry	16
12-Sep	Thursday	14:44	97	dry	14
13-Sep	Friday	14:50	78	dry	16
14-Sep	Saturday	14:44	103	dry	18
15-Sep	Sunday	14:40	91	dry	19
16-Sep	Monday	14:42	94	dry	20
17-Sep	Tuesday	14:42	164	dry	20
18-Sep	Wednesday	14:44	212	dry	23
19-Sep	Thursday	14:47	227	dry	24
20-Sep	Friday	14:41	87	dry	20
21-Sep	Saturday	14:47	96	wet	18
22-Sep	Sunday	14:10	46	wet	18
23-Sep	Monday	14:43	12	dry/wet	17
24-Sep	Tuesday	14:47	41	dry	16
25-Sep	Wednesday	14:45	19	wet	16
26-Sep	Thursday	14:40	26	wet	16
27-Sep	Friday	14:42	47	dry/wet	13
28-Sep	Saturday	14:40	95	dry	16
29-Sep	Sunday	14:40	33	dry	15
30-Sep	Monday	14:40	66	dry	16

Daily average: 82 18

Proportion not on ferry 30% **25** = Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Oct	Tuesday	14:40	39	dry	16
02-Oct	Wednesday	14:41	46	dry	16
03-Oct	Thursday	14:45	52	dry	16
04-Oct	Friday	14:47	76	dry	15
05-Oct	Saturday	14:39	108	dry	16
06-Oct	Sunday	14:41	67	wet	13
07-Oct	Monday	14:51	26	wet/dry	18
08-Oct	Tuesday	14:44	22	wet	15
09-Oct	Wednesday	14:40	33	dry	16
10-Oct	Thursday	14:43	37	dry	12
11-Oct	Friday	14:46	31	dry	12
12-Oct	Saturday	14:39	41	dry	10
13-Oct	Sunday	14:46	53	dry	8
14-Oct	Monday	14:42	15	wet/dry	16
15-Oct	Tuesday	14:43	22	dry	17
16-Oct	Wednesday	14:47	7	wet	18
17-Oct	Thursday	14:45	21	dry	16
18-Oct	Friday	14:39	83	wet/dry	15
19-Oct	Saturday	14:41	45	wet/dry	16
20-Oct	Sunday	14:40	31	wet	15
21-Oct	Monday	14:45	18	wet	14
22-Oct	Tuesday	14:46	28	dry	16
23-Oct	Wednesday	14:41	41	dry	16
24-Oct	Thursday	14:39	27	dry	16
25-Oct	Friday	14:44	33	wet/dry	16
26-Oct	Saturday	14:42	72	dry	15
27-Oct	Sunday	14:39	60	dry	16
28-Oct	Monday	14:44	11	wet	15
29-Oct	Tuesday	14:45	56	dry	16
30-Oct	Wednesday	14:40	48	dry	16
31-Oct	Thursday	14:47	26	dry	14

Daily average:

41

15

Proportion not on ferry

30%

12

= Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Nov	Friday	14:41	27	dry	13
02-Nov	Saturday	14:39	28	dry	13
03-Nov	Sunday	14:44	33	dry	12
04-Nov	Monday	14:42	22	dry	12
05-Nov	Tuesday	14:42	16	dry	12
06-Nov	Wednesday	14:47	10	dry	12
07-Nov	Thursday	14:43	11	dry	12
08-Nov	Friday	14:42	9	dry	10
09-Nov	Saturday	14:41	14	dry	10
10-Nov	Sunday	14:41	23	dry	13
11-Nov	Monday	14:42	11	dry	10
12-Nov	Tuesday	14:44	15	dry	11
13-Nov	Wednesday	14:42	10	dry	10
14-Nov	Thursday	14:39	13	dry	10
15-Nov	Friday	14:42	14	dry	10
16-Nov	Saturday	14:46	24	dry	11
17-Nov	Sunday	14:43	31	dry	11
18-Nov	Monday	14:42	9	Wet	10
19-Nov	Tuesday	14:40	12	dry	4
20-Nov	Wednesday	14:40	14	dry	4
21-Nov	Thursday	14:43	13	dry	4
22-Nov	Friday	14:42	18	dry	5
23-Nov	Saturday	14:45	19	Wet	15
24-Nov	Sunday	14:44	18	Wet	15
25-Nov	Monday	14:45	21	dry	10
26-Nov	Tuesday	14:42	18	dry	9
27-Nov	Wednesday	14:41	19	dry	6
28-Nov	Thursday	14:39	19	dry	9
29-Nov	Friday	14:44	22	dry	12
30-Nov	Saturday	14:41	33	dry	13

Daily average: 18 10

Proportion not on ferry 30% 5 = Road Only Tolls daily

Ferry road parked cars

Date	Day	Time	Vehicle numbers	Conditions	Temperature
01-Dec	Sunday	14:37	19	wet	14
02-Dec	Monday	14:40	18	dry	8
03-Dec	Tuesday	14:45	14	dry	5
04-Dec	Wednesday	14:42	21	dry	11
05-Dec	Thursday	14:44	22	dry	13
06-Dec	Friday	14:42	27	dry	12
07-Dec	Saturday	14:39	9	wet	8
08-Dec	Sunday	14:38	19	dry	8
09-Dec	Monday	14:46	14	dry	8
10-Dec	Tuesday	14:47	10	dry	7
11-Dec	Wednesday	14:41	9	dry	6
12-Dec	Thursday	14:42	7	dry	5
13-Dec	Friday	14:45	15	dry	6
14-Dec	Saturday	14:43	22	dry	7
15-Dec	Sunday	14:39	26	dry	12
16-Dec	Monday				
17-Dec	Tuesday				
18-Dec	Wednesday				
19-Dec	Thursday				
20-Dec	Friday				
21-Dec	Saturday				
22-Dec	Sunday				
23-Dec	Monday				
24-Dec	Tuesday				
25-Dec	Wednesday				
26-Dec	Thursday				
27-Dec	Friday				
28-Dec	Saturday				
29-Dec	Sunday				
30-Dec	Monday				
31-Dec	Tuesday				

Daily average: 17 (15 days) 9

Proportion not on ferry 30% 5 = Road Only Tolls daily

Appendix F

Handelsbanken

Chelmsford

Private and Confidential
The Directors
Bournemouth-Swanage Motor Road and Ferry Company Inc
Fairacres
Stock Lane
Ingatestone
Essex. CM4 8QL

Date: 23 April 2019

Dear Sirs

I write further to our recent discussions regarding your funding proposals utilising the assets and shareholding in the Bournemouth-Swanage Motor Road and Ferry Company Inc (BSMRF) as security.

The BSMRF is a company established and governed by the terms of a series of private Acts of Parliament. In order to fully understand the provisions of these Acts, legal opinion has been sought to establish a clearer understanding of the powers BSMRF have in terms of borrowing and/or granting security over its assets.

Without going over every salient point covered within the legal opinion, although BSMRF does have powers to borrow for its own purposes, either directly or indirectly, the opinion provided confirmed that there are a number of provisions within the various Acts placing restrictions and limitations on what BSMRF can do which could make it difficult for the bank to provide facilities and/or utilise its own assets as security for these facilities.

It is recognised that BSMRF does have substantial assets in its balance sheet all of which forms the operation of the Bournemouth-Swanage Chain Ferry. At this stage I've not obtained legal opinion, but on the information I do have to hand, I understand BSMRF retains either the freehold title to the properties or has a perpetual interest or power over the properties vested in it by statute. In terms of the bank utilising these assets to support borrowings, because of the type/class etc this again may not be a viable option.

You have also asked the bank to consider taking a legal or an equitable mortgage over the shares in BSMRF owned by Fairacres Group Limited as direct security. My initial thought here is if the bank needed to enforce its security i.e. sell the shares, it is unclear what the demand will be for such shares on the open market. Taking into account the restrictions and limitations placed on the company by the series of private Acts of Parliament this could make them less attractive.

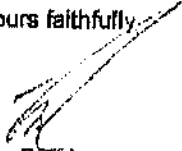
It is therefore with regret that we are unable to proffer the funding facilities requested at this time and I sincerely hope this doesn't affect our relationship with your Group moving forwards.

Handelsbanken plc
Greenwood House
81-88 New London Road
Chelmsford CM2 0PP

Tel: 01245 347777
Fax: 01245 348350
handelsbanken.co.uk/chelmsford
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Yours faithfully



Tim Paddon
Branch Manager

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Handelsbanken

Chelmsford

Date: 2 January 2025

Private and Confidential

The Directors
Bournemouth-Swanage Motor Road and Ferry Company Inc
Fairacres
Stock Lane
Ingatestone, Essex
CM4, 9QL

Dear Sirs

I write further to our recent conversations regarding the Bournemouth-Swanage Motor Road and Ferry Company Inc (BSMRF) and previous correspondence on 23/04/2019.

The BSMRF is a company established and governed by the terms of a series of private Acts of Parliament. The Bank had previously obtained legal opinion and it was confirmed that there are a number of provisions within the various Acts placing restrictions and limitations on what BSMRF can do which could make it difficult for the bank to provide facilities and/or utilise its own assets as security for these facilities.

Whilst it is recognised that BSMRF holds substantial assets within its balance sheet which form the operation of the Bournemouth-Swanage Chain Ferry, The structure of the business and its supporting assets mean it may be difficult to utilise, manage, and enforce any security the Bank would require for financing purposes. We must also consider financial performance of the business, given the nature of the operations which has seen a lack of consistent profit streams in the business over recent financial years.

I am therefore unfortunately unable to offer financing facilities to the business on the basis of the above points. If you would like to discuss further then please do not hesitate to contact me.

Kind regards

Yours sincerely



Bradley Paynter
Corporate Banking Manager

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Appendix G

STATUTORY INSTRUMENTS

2009 No. 3029

HIGHWAYS ENGLAND

The Bournemouth-Swanage Motor Road and Ferry (Revision of Tolls) Order 2009

Made	16 November 2009
Coming into force	20 November 2009

The Secretary of State for Transport, in exercise of the powers conferred by section 6 of the Transport Charges &c. (Miscellaneous Provisions) Act 1954 (a), as applied by section 26 of the Bournemouth-Swanage Motor Road and Ferry Act 1956 (b) and section 23 of the Bournemouth-Swanage Motor Road and Ferry Act 1986 (c), hereby makes the following Order:

1. This Order may be cited as the Bournemouth-Swanage Motor Road and Ferry (Revision of Tolls) Order 2009 and shall come into force on 20th November 2009.

2. (1) In this Order -

“the Company”, “the motor road” and “the ferry” have the meanings given to those expressions in section 2 of the Bournemouth-Swanage Motor Road and Ferry Act 1986;

“goods vehicle” and “trailer” have the meanings given to those expressions in section 138(3) of the Road Traffic Regulation Act 1984 (d); and

“passenger vehicle” means a vehicle constructed or adapted solely for the carriage of passengers and their effects.

(2) For the purposes of this Order the operating weight of a goods vehicle shall be determined as provided in section 138(2) of the Road Traffic Regulation Act 1984.

3. (1) The tolls which the Company may demand and take for the use of the ferry are hereby revised in accordance with the schedule to this Order.

(2) No tolls may be demanded or taken for the use of the motor road.

4. The Bournemouth-Swanage Motor Road and Ferry (Revision of Charges and Traffic Classifications) Order 2006 (e) is hereby revoked.

Signed by authority
of the Secretary of State
16 November 2009

Jeremy Rolstone
A Senior Civil Servant in the Department for
Transport

(a) 1954 c. 64
(d) 1984 c. 27

(b) 1956 c. lxiii
(e) SI 2006/1723

(c) 1986 c. xvii

[DfT]

SCHEDULE

1. As respects each class of traffic in column (1) of the table below, the toll chargeable for the use of the ferry shall not exceed the sum specified in relation to that class in column (2).

	(1)	(2)
	<u>Class of traffic</u>	<u>Maximum Ferry Toll</u>
1.	Pedestrian (One-way toll from Sandbanks) (One-way toll from Shell Bay)	£1 0p
2.	Pedal or Motor Cycle with no more than three wheels.	£1
3.	(a) Passenger vehicle constructed or adapted to carry not more than 16 persons exclusive of driver with an operating weight not exceeding 3,500 kilograms.	£3.50
	(b) Goods vehicle with an operating weight not exceeding 3,500 kilograms.	£3.50
4.	Passenger vehicle constructed or adapted to carry more than 16 persons exclusive of driver with an operating weight not exceeding 20,000 kilograms.	£8.00
5.	Goods vehicle, or any other vehicle not specified above with an operating weight exceeding 3,500 kilograms but not exceeding 20,000 kilograms.	£7.00
6.	Vehicle not specified above with an operating weight not exceeding 3,500 kilograms	Charged at the rate applicable for that of the nearest similar vehicle.

2. Where a vehicle is drawing one or more trailers, in addition to the toll chargeable under this Order for the use of the ferry by that vehicle, a toll of the same amount as that chargeable for the drawing vehicle shall be chargeable for each trailer.

EXPLANATORY NOTE

(This note is not part of the Order)

This Order, made in consequence of an application by the Bournemouth-Swanage Motor Road and Ferry Company, revises the maximum tolls which may be charged for the use of the motor road ferry. These new tolls supersede the toll levels set out in the schedule to the Bournemouth-Swanage Motor Road and Ferry (Revision of Charges and Traffic Classifications) Order 2006.