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Trip Distribution

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London Resort Company Holdings

THE LONDON RESORT

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1 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

- 1.1.1. WSP have been engaged to provide transport advice and input to the proposed development of The London Resort at the Swanscombe Peninsula in Kent, supporting the development of the transport, highway and infrastructure masterplan and the development business case. This Technical Note forms part of a suite of documents intended to inform and support a Nationally Significant Infrastructure Project (NSIP) Development Consent Order (DCO) application. The London Resort will be the first leisure complex of its kind in the UK and this report has been prepared to outline the methodology used to ascertain the trip distribution associated with visitors and staff to the proposed development.

1.2 THE LONDON RESORT SITE SELECTION

- 1.2.1. During the Business Plan phase of the project WSP contributed to the selection of sites, providing a critique of site options relative to forecast demand and the existing infrastructure available at each site.
- 1.2.2. The Ebbsfleet site was chosen based on a number of selection criteria, including its relative location and accessibility to major European cities, transport and service infrastructure, site availability and development plan designation. The selected location is believed to offer great location advantages to domestic and international visitors.
- 1.2.3. It is forecast that many people will visit The London Resort as part of a combined trip, short break or holiday therefore staying overnight; the site has convenient access to many existing and planned accommodation facilities within a 60-minute drive of the development. Ebbsfleet international station offers fast and reliable connections to London which is considered a primary location for many European and International guests staying in the UK and visiting the site. Information regarding likelihood of staying overnight and the location of said facilities is detailed further Chapter 5 and in Volterra's report.
- 1.2.4. The site also benefits from being located to a number of ports, including Tilbury, which will provide commercial cargo services as well as vehicle and passenger traffic. The potential to exploit links to European cruise liners contributes to the site being able to offer the greatest level of accessibility for a development of its kind.

1.3 SUPPORTING INFORMATION

- 1.3.1. This Technical Note references a number of other Technical Notes or data provided by other consultants. This section provides a short summary on each of these referenced throughout this report:
- **Stakeholder Advisor Technical Document (SATD):** This Document outlines the data and proposed methodology to be used in determining the likely forecast visitor and staff numbers at The London Resort as well as the proposed assessment years and day types.
 - **Technical Note 1 (TN1) Travel Demand:** This Technical Note presents a methodology to determine the likely multi-modal trip generation for visitors and staff, and the travel demand expected based upon the forecast annual and daily visitor figures calculated by ProFun Management Group Inc (ProFun) and Leisure Development Partners (LDP).
 - **Technical Note 3 (TN3) Mode Share:** This Technical Note completed a review process to identify sites/resorts that were applicable for a more in-depth review for use in the analysis of visitor and staff modal splits. The final modal split for Cars has been applied to the trip distribution.
 - **Technical Note 4 (TN4) Current and Future Mobility:** The Technical Note is split into three parts. Part A summarises the Future Mobility megatrends and technology timeline. Part B maps and describes the visitors trip origin on day of travel. This has been derived from Technical Note 2 Trip Distribution. Part C looks at the mode shift opportunity – or the estimated range of visitors that could access the site by modes other than private vehicle. This is based on the trip distribution and undertaken at a local authority level. In

this part of the report, the estimated number of people that could arrive by active travel, direct local bus services, ferry and rail was calculated. The mode shift opportunity identifies a range of mode shares – with actual mode share determined by factors such as car parking availability and pricing on-site, ticketing strategies and other behaviour change initiatives.

- **LDP Preliminary Attendance and Physical Planning Analysis:** Forecasts the attendance at the Main Gate, Second Gate and Retail, Dining and Entertainment (RD&E) facilities, Waterpark and provides estimation for the likely home origin of visitors attending The London Resort. A summary of some of this information is also included in as part of TN1 and the specific LDP analysis that has been used to underpin the trip generation is discussed later in this report.
- **Volterra:** Provide information on the economic analysis and catchment areas of visitors and staff, including the distribution of likely hotel guests and locations. Information on the likely demographic on staffing, helping to determine catchment areas have been provided. The Volterra report titled '*London Resort Offsite Hotel Distribution*' will be issued separately by Volterra.
- **ProFun** are experts in theme park and attraction sector and for the purpose of The London Resort, provided a detailed visitor analysis broken down by each day in the assessment years. Further information regarding the implementation of ProFun, Volterra and LDP data into WSP calculations is detailed in TN1.

1.4 REPORT STRUCTURE

1.4.1. This Technical Note presents the information used to determine the likely trip distribution for visitors and staff at The London Resort, and is broken down under the following chapters:

- **Chapter 2** The London Resort background information;
- **Chapter 3** Visitors' profile;
- **Chapter 4** Visitors' home origin assumptions and profile, including a trip distribution model;
- **Chapter 5** Visitors' trip origin related to the travel on the same day of the visit accounting for day visitors and overnight stays;
- **Chapter 6:** Visitor trip distribution by area of The London Resort;
- **Chapter 6** Staff Distribution considered relative to latest (Census 2011) Journey to Work information for the local area; and
- **Chapter 7** Summary and Conclusion

2 THE LONDON RESORT

2.1 INTRODUCTION

- 2.1.1. The London Resort is forecast to be a world-renowned theme park resort offering the highest standard content and facilities. The proposed site will have quality and visitor experience at the core of its design and will provide an exclusive experience that is unrivalled in existing facilities in the UK and on a par with other leading theme parks in the world.
- 2.1.2. As with any large-scale attraction, the way visitors and staff travel to the site will be of key importance and thus this chapter provides a summary of the proposed development offering and site accessibility in order to understand better The London Resort's likely visitor and staff attraction, their home origin and resulting distribution. It is expected The London Resort will exhibit some similarities to other global theme park destinations however the proposed site location offers access to a unique range of sustainable transport modes which will inform and determine the forecast the likely mode shares for visitors and staff.

2.2 PROPOSED DEVELOPMENT DESCRIPTION

- 2.2.1. The proposals of the site are indicatively set out as follows;
- A multi-IP global resort including leading brands related to film television, electronic gaming and toys;
 - Phased approach delivering two unique parks;
 - The leisure core will comprise a range of events space, themes rides and attractions, entertainment venues, theatres and cinemas;
 - The Main Gate and Second Gate will have entrance plazas offering ancillary retail, dining and entertainment facilities;
 - Approximately 3,550 suites across four hotels providing family, upmarket, luxury and themed accommodation;
 - A Waterpark incorporated within one of the on-site hotels;
 - A 'conferention' centre, combined conference and convention facilities capable of hosting a wide range of entertainment, sporting, exhibition and business events;
 - A linked building hosting a range of eSports, video and computer gaming events;
 - Approximately 2,000 single units contained within 500 on-site dwellings for Resort workers; and
 - People mover and transport interchange between Ebbsfleet International, the pier and the main entrance.

2.3 SITE LOCATION AND ACCESSIBILITY

- 2.3.1. The Project Site lies approximately 30 km east-south-east of central London on the south bank of the River Thames, in the county of Kent. The Project Site occupies much of the Swanscombe Peninsula and includes a corridor for transport connections extending generally southwards to the A2(T) trunk road.
- 2.3.2. The development will look to capitalise on the proximity of public transport by providing easy and efficient access to and from the local rail, bus and coach stations. A people-mover system will be developed to provide easy means of transfer between key stations and the site, facilitating the transfer of visitors and staff and thereby reducing the reliance on private vehicle travel.
- 2.3.3. A network of pedestrian and cycle routes will be provided on the Swanscombe Peninsula and will connect to the adjacent residential areas of Greenhithe, Swanscombe and Northfleet. This will improve connectivity within existing neighbourhoods and create linkages with the network of green spaces.

- 2.3.4. One of the major advantages of the development location, and one which sets The London Resort apart from any other major resort of this type, is the availability of public transport options surrounding the site. Ebbsfleet International station provides connections with St Pancras International station in the heart of London within a journey time of approximately 17 minutes.
- 2.3.5. In addition, the North Kent Rail line provides frequent train services to and from central London (as well as eastwards to key destinations in Kent) with stations at Swanscombe, Greenhithe and Northfleet. This proximity to available rail services, which includes the High-Speed Rail link, provides significant public transport attributes. In addition, other UK rail projects have been considered at varying design stages from high-level feasibility studies to preliminary design sufficient for protected transport lines. Within the sub-region these include Crossrail and Eurostar Velario, which will increase the attractiveness of rail as a mode of travel and increase the opportunity to utilise rail as a key mode of travel to the site. It is also assumed that the FastTrack service, operating in nearby Ebbsfleet and the Garden City development, will be essential to the transit of residents to and from The London Resort.
- 2.3.6. The London Resort site is located on the Swanscombe Peninsula and is highly accessible to the strategic road network (SRN), including the A2, M2, M25 and Dartford Crossing. The road network provides the ability for local visitors and staff, as well as those from further afield, to access The London Resort by car, bus or coach. Additionally, the SRN provides connections to all key London airports within 120-minute driving times. Current site proposals include a four-lane dual carriageway access road approximately 2.3 kilometres in length to connect the A2/A2260 junction and the Leisure Core on the Swanscombe Peninsula.
- 2.3.7. The proposals also see the introduction of a new car park north of the river, within the Port of Tilbury (PoT). Access to this location is highlight accessible also directly from the SRN via the M25 and the A13.
- 2.3.8. The development also benefits from being located adjacent to the River Thames, providing a water-borne network not only for commercial and construction users arriving via the port at Tilbury, but also for visitors via water taxis from both London and Tilbury.
- 2.3.9. The accessibility of the planned location for The London Resort provides a unique opportunity for a development of this type. The existing and proposed transport options available will enable the development to adopt a sustainable travel ethos and minimise the impact on local areas from the outset.

3 VISITOR PROFILE

3.1 INTRODUCTION

- 3.1.1. The London Resort is forecast to be a global destination theme park attracting visitors from across the UK, Europe and the rest of the World. Comparisons with existing major entertainment attractions similar to The London Resort indicate that the home origin of visitors and their relative distance from site will directly influence length of stay. It is reasonable to assume that UK Domestic visitors are more likely to be day visitors whereas international guests may stay overnight or combine the visit within another trip purpose, such as visiting London.
- 3.1.2. In order to accurately assess the impacts of development trips on the highway network, we are considering the trip distribution on the day of visit to The London Resort as these trips are considered to have the most significant impact. The trip origin will therefore be determined by the location of those that travel to/from home on the day of visit and those staying in overnight accommodation nearby.
- 3.1.3. Visitor's trip origin on the day they visit The London Resort is described as '*day of travel*' origin; based on travel patterns at other attractions/resorts, considered in TN1, it is anticipated that the vast majority of '*day of travel*' trips will start and finish within the UK. Visitors travelling from overseas are expected to stay on-site, at nearby accommodation within the neighbouring local authorities or incorporate the visit with a longer trip and stay within London. It is therefore reasonable to assume that visitors from Europe and the Rest of the World's '*day of travel*' origin will be within the UK and most likely within 60 minutes' drive time from site.
- 3.1.4. This chapter outlines evidence and assumptions that have been used to forecast The London Resort visitors either to/from their home origin or assumed overnight accommodation.

3.2 ASSESSMENT YEARS

- 3.2.1. The London Resort is expected to become operational in 2024 with the Easter opening of the Main Gate alongside the RD&E element and 2,300 on-site Hotel rooms, including the Waterpark.
- 3.2.2. The associated infrastructure, proposed to come forward as part of The London Resort masterplan, will be operational from 2024 including the improved junction on the A2, new car park provision, the people mover between the Thames, Ebbsfleet International and The London Resort, and the enhanced bus services. As 2025 will form the first full operational year of The London Resort, it is therefore deemed appropriate that 2025 forms the primary assessment year.
- 3.2.3. The Second Gate is forecast to open 5 years after the main gate in 2029 alongside the build-out of the remaining 1,250 Hotel rooms and aligns with the forecast by LDP of an influx of visitors when The London Resort becomes fully operational. As such, 2029 forms the second assessment year
- 3.2.4. The increasing digitisation of society, and the emergence of connected and autonomous technologies, zero emission vehicles, shared service models and new forms of electronic payment, are already causing disruption and blurring the boundaries of traditional transport modes. In addition, global megatrends – including demographic challenges, social change, environmental focus, economic shift and the political landscape – influence how, when and where people will travel to.
- 3.2.5. As guidance, the Department for Transport's '*Future of Mobility: Urban Strategy*' outlines the government's approach to maximising the benefits from transport innovation in cities and towns, and summarises the six high-level 'key changes' that are fueling the evolution of transport, which are:
- 1. Automation;
 - 2. Cleaner Transport;
 - 3. New Business Models;
 - 4. New Modes;

- 5. Data & Connectivity; and
- 6. Changing Attitudes.

- 3.2.6. How these changes are reflected within the planning of new development is paramount, particularly as the build-out timeline will be realised as these changes come to fruition. In the case of The London Resort, the development build out timeline (year 2038) means it is imperative scheme proposals reflect new and future mobility interventions.
- 3.2.7. There is a level of uncertainty assessing as far forward as 2038 regarding key strategic infrastructure within the South East and the potential change in how people travel. Additionally, it is difficult to predict travel behaviour and patterns, especially when there will be a continuing push for sustainable travel modes alongside improvements to local bus, rail and river networks. A sensitivity assessment will be undertaken for 2038 when the development reaches maturity, 15 years after the opening of the Main Gate. The assessment years and day types are discussed within more detail in the Stakeholder Advisor Technical Note (SATD).
- 3.2.8. The full visitor attendance for assessment years and scenarios to be assessed is set out in detail within TN1 whilst this Technical Note focuses on the distribution.

3.3 LEISURE DEVELOPMENT PARTNERS

- 3.3.1. Leisure Development Partners (LDP) consultants specialise in the review of performance and level of visitor attraction to leisure real estate. They have forecast the anticipated attraction to the proposed development based on detailed market analysis and benchmarking against existing comparable developments in the world.
- 3.3.2. LDP have been commissioned to complete a market penetration analysis and feasibility study for the proposed London Resort development. A number of assumptions have been adopted by LDP in order for their assessment to be undertaken and to determine the forecast percentage home origin splits for UK domestic and International guests visiting the development in 2025, 2029 and 2038.
- 3.3.3. The following main assumptions have been used by LDP to inform their forecasts:
- The London Resort will consist of a mix of IPs incorporating both international and British brands
 - A true destination theme park delivering a highly themed environment
 - A main park with more than enough content for a day and a visit averaging around 8 hours
 - The quality of offer and entertainment assumed is to be more heavily invested and immersive than any non-Disney park in Europe
- 3.3.4. International benchmarking of existing entertainment resorts and market share analysis undertaken by LDP indicates that day-visits tend to originate from locations within 120 minutes of The London Resort location, with a significant majority travelling from within 60 minutes. It is also reasonable to assume that all guests visiting the site from beyond 120 minutes, in addition to those travelling from outside the UK, are more likely to stay overnight within 60 minutes of the development.
- 3.3.5. LDP forecasts that the majority of UK home origin day visitors are expected to originate from within a 120 minutes' drive time (off-peak) radius of the proposed site location, defined as the primary (0-60 minutes) and secondary (60-120 minutes) resident markets. The resident market population is forecast to total approximately 24.2 million people in 2025. People visiting The London Resort, and who live more than two hours' drive time away, are likely to stay in the area overnight and are therefore considered in the tourist market forecast to total approximately 27.2 million domestic and international tourists in 2025.
- 3.3.6. LDP forecasts regarding home origins are the primary basis of our assessment and have informed the UK home origin trip distribution in the form of a calibrated gravity model, discussed further within this chapter.

3.4 THE LONDON RESORT VISITOR HOME ORIGIN

3.4.1. Using information provided by LDP, a detailed breakdown of the expected visitor home origin is provided below. In the first instance, visitors will be classified within three major sub-categories:

- UK Domestic, classified by driving time to the site (within 60 minutes, 60 to 120 minutes, and 120 minutes+);
- European travellers; and,
- The Rest of the World

3.4.2. Based on the LDP assessment, the predicted 2025 international/domestic home origin splits that have been adopted for the trip distribution are as follows. A detailed split by country is included within **Appendix A**:

UK Domestic 77%

International 23%

3.4.3. The UK Domestic home origin split is classified further depending on driving distance to site. The full home origin splits for 2025 are shown in **Table 3-1**.

Table 3-1 2025 Visitor Origin Splits

Available markets	Visitor origin
Primary Resident - those living within 0-60 minutes of the site	37%
Secondary Resident - those living within 60-120 minutes of the site	23%
Domestic Tourist - living more than 120 minutes from site	17%
International Tourists	23%
Total	100%

Source: LDP Preliminary Attendance and Physical Planning presentation

3.4.4. It has been forecast that, in 2025, 23% of overall guests are expected to visit the site from outside the UK. This Non-UK based origin percentage was further categorised into European and International using the catchment market data from Visit Britain and LDP (included in Appendix A) and the full adopted home origin splits are detailed below:

- UK Domestic 77%
- Europe 15%
- The Rest of the World 8%

3.4.5. Based on LDP's market analysis, the visitor profiles adopted for The London Resort site are believed to provide a robust forecast of UK domestic, European and International travel demand. As it is assumed that the domestic profile could generate a greater impact on local transport networks, this breakdown compared to other sites, is considered a robust forecast

4 VISITOR'S HOME ORIGIN

4.1 INTRODUCTION

- 4.1.1. This section reviews in more detail the forecast UK Domestic, European and International home origins distribution. It is accepted that The London Resort site is unique in terms of attractions and land uses on site in addition to location and travel services available within the UK, therefore it is considered there are only few similar entertainment attractions in the UK and few comparable examples across Europe and the Rest of the World. Whilst Disneyland Paris and Europa Park offer an example of domestic and international travel patterns, the distinctive characteristics of the site mean that limited conclusions regarding trip distribution can be drawn from these resorts.
- 4.1.2. In order to calculate the likely trip distribution for The London Resort on the anticipated first full operating year after Main Gate opening (2025) and ascertain the level of visitors' attraction relative to their location from the site, a visitor trip distribution model has been developed using a gravity model based on LDP forecasting and UK Census population data. A detailed explanation of the visitor trip distribution model assumptions and validation is provided within this chapter. A final home origin distribution has then been calculated incorporating European and International visitors.

4.2 TRIP DISTRIBUTION MODEL

- 4.2.1. Using the LDP visitor origin profiles outlined in 3.4.2, it is assumed that 77% of visitors from the park will be made up of UK / Domestic based occupants. In order to calculate the likely trip distribution for visitors whose home origin is within the UK, a trip distribution model has been developed using a logit function. A detailed explanation of model form, calibration and results is detailed within this section.

MODEL FORM

- 4.2.2. A synthetic trip distribution model has been developed to inform the UK trip distribution for The London Resort development. Following standard practice on trip distribution, and in accordance with guidance presented in Web TAG Unit M2¹, the trip distribution model is a logit model, taking the following form:

$$T_i = \frac{P_i \exp(-\beta \ln(G_i))}{\sum_i P_i \exp(-\beta \ln(G_i))}$$

- 4.2.3. In the above equation, T_i is the total trip from a given zone (i); P_i is a weighting factor, in this case the total population in the given zone; and, G_i is the generalised cost of car travel from the given zone to the development site. β is a parameter that reflects the sensitivity of trip-making decisions related to changes in cost. This is adjusted as part of the model calibration process explained in the following paragraphs.
- 4.2.4. The generalised cost of a car or other vehicle for a journey takes account of both travel time (for a number of occupants) and the vehicle operating costs, and is defined below:

$$G = \frac{(VOT * t) + (VOC * d)}{VOT}$$

¹ <https://www.gov.uk/government/publications/webtag-tag-unit-m2-variable-demand-modelling>

- 4.2.5. Value of Time (VOT), Vehicle Operating Costs (VOC), journey time (t) and journey distance (d) contribute to the generalised cost of travel. VOT and VOC have been calculated from input data contained in the TAG² data book for the 2025 “car – other” journey purpose in the inter-peak period, as this is the closest correspondence to leisure trips. The full summary of Pence per Minute (PPM) and Pence per Kilometre (PPK) values is detailed in **Appendix B**. The resultant values are.

VOT = 9.81 pence per minute.

VOC = 5.39 pence per kilometre.

- 4.2.6. To provide sufficient detail for the assessment, the generalised cost was calculated uniquely using time and distance from a centroid for each Local Authority in England and Wales. A single representative generalised cost was calculated for Scotland using average time and distance from a centroid. Time and distance information for each local authority and Scotland was obtained from the following sources:
- **Time** – Free on-line journey planner maps were used to derive average drive times, not including traffic, from Ebbsfleet International railway station to a central point in each district across England and Wales. Districts within Scotland were merged and a central point for the country was taken to calculate the likely journey time. Ebbsfleet International was used as the start point due to its proximity to the site, and a current set location meaning that exactly the same point could be used for each search.
 - **Distance** – Distance was calculated using the Network Analyst extension in ArcGIS v10.2. For local authorities within a 3-hour radius, a centroid was created, and the Network Analyst tool then used the fastest route (typically via the SRN) within the UK to calculate the driving distance from Ebbsfleet International to each centroid. For areas outside the 3-hour drive time, a centroid was created for the county or region and the distance was calculated from this point. Ebbsfleet International was again used for continuity with the drive times discussed above.

MODEL CALIBRATION

- 4.2.7. Due to the unique nature of this development and its exclusive offering, it is reasonable to assume that the pull of attraction will be bespoke and exclusive to this type of proposed resort. It is therefore considered appropriate that the model is calibrated against market analysis undertaken by LDP as detailed below.
- 4.2.8. LDP analysis of available market size population data and likely penetration rates to the main park classifies visitors into categories outlined in **Table 3-1**.
- 4.2.9. The distribution gravity model has been developed to ascertain distribution of trip within the UK. In order to calibrate the UK based distribution model, LDP drive time band forecasts for domestic visitors have been factored to represent a 100%, as shown in **Table 4-1**.

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/313222/webtag-tag-unit-a1-3-user-and-provider-impacts.pdf

Table 4-1 UK Visitors Home Origin (by drive time bands)

Available market by Distance band (within the UK)	LDP market penetration 2025 (77% UK Split)	LDP market penetration 2025 (100% UK Split)
0-60 minutes	37%	48%
60-120 minutes	23%	30%
120+ minutes	17%	22%
Total	77%	100%

Source: LDP market analysis and consultant calculated

GENERALISED COST

- 4.2.10. The generalised cost applied to the gravity model acknowledges the sensitivity of distance between The London Resort and home origins of visitors. The logit function takes into consideration the cost of travel time and estimated cost of travel which is considered to have an effect in visitor attraction. The generalised cost for each of the three drive time bands shown above has been taken as the weighted average of the generalised cost for each local authority within the band.
- 4.2.11. It is acknowledged that a distribution gravity model based solely on population would be unable to replicate the LDP market penetration rates due to the relative high proportion of the total population outside the +120 minutes radius compared to the equivalent market penetration rates. However, LDP market penetration analysis considers that visitors travelling more than +120 minutes are likely to stay overnight and thus the generalised cost of making a trip to the site is significantly more than the resident market (i.e. primary and secondary resident living under 120 minutes from the site) who will predominantly be day visitors.
- 4.2.12. It is acknowledged that the pull of attraction in relation to distance is expected to be unique for a world-renowned resort such as anticipated for The London Resort. It is therefore considered appropriate for the model to replicate LDP's predictions that visitors within the resident market (located within 120minutes) will visit The London Resort regardless of local variations on distance, time and cost (i.e. all visitors within the resident market will travel on the day of visit). Consequently, a 'local attraction factor' has been applied to the 60 – 120-minute average generalised cost which reflects LDP forecasts and the unique development characteristics.

CALIBRATION FACTORS

- 4.2.13. A local attraction factor of 0.68 has been applied to the 60-120 minutes market band generalised cost in order to reflect LDP market analysis forecasts.
- 4.2.14. It is possible that factors such as household income, the focus of The London Resort's advertising or the presence of other nearby attractions would influence trip distribution however the complexity of the interactions of these variables fall beyond the trip distribution model.
- 4.2.15. The trip distribution model has been calibrated to the three available market drive time bands and for the purpose of this model a value for β of 1.08 produced the best match. It is noted that the gravity model was calibrated for the 2025 assessment year only; the calibrated model has then been applied to the LDP visitor forecast projections for 2029 and 2038 respectively.

MODEL OUTPUT

The model calibration results are detailed in **Table 4-2** and a full UK distribution is presented in **Appendix C**.

Table 4-2 2025 Model Calibration

Drive Time Bands	LDP market penetration 2025 (100% UK SPLIT)	Average Weighted Generalised Cost	Total Population	Deterrence	Gravity Model Distribution
0-60 minutes	48%	66.14	11,683,286	128995	48.36%
60-120 minutes	30%	98.76	11,250,437	80723	30.26%
120 minutes +	22%	427.96	38,435,389	57013	21.37%

Source: Consultant calculated

- 4.2.16. As shown in **Table 4-2**, the trip distribution model produces very similar results to the LDP projected patterns. The UK trip distribution model analysis as per LDP forecast anticipate that, of the UK Domestic visitors, just under half (48%) will be attracted from the surrounding areas up to 60minutes driving time from the site, less than a third (30%) of UK based visitors are expected to visit from distances between 60 to 120 minutes and a fifth (21%) of visitor will be attracted from over 120 minutes driving time away from The London Resort. The trip distribution model presented above is therefore considered a robust assessment of the likely distribution of trips to the development.

4.3 UK HOME ORIGIN TRIP DISTRIBUTION

- 4.3.1. LDP market analysis discussed further in Chapter 3 and presented in **Table 4-1** forecasts that in 2025 whilst 77% of visitors will be UK domestic, 15% and 8% of total visitors will originate from Europe and the Rest of the World respectively.
- 4.3.2. Based on these statistics and the UK gravity model, the overall home origin distribution has been calculated based on the total expected visitors to the site, including those travelling from UK and abroad. **Table 4-3** presents the distribution of all visitors, with the UK only distribution being re-applied to the expected overall domestic percentage split of 77%. The home origin of all visitors in 2029 and 2038 has been included; the splits have been obtained from LDP projected and distributed using the validated 2025 gravity model.

Table 4-3 All Visitors Home Origin Distribution (All Visitors' Base)

Home Origin	2025 Home origin of All Visitors	2029 Home origin of All Visitors	2038 Home origin of All Visitors
UK- 0 to 60 minutes	37%	30%	24%
UK- 60 to 120 minutes	23%	24%	24%
UK- more than 120 minutes	17%	18%	17%
Europe	15%	18%	22%
Rest of World	8%	10%	12%
Total	100%*	100%	99%*

Source: Consultant calculated based on trip distribution model and international origin split. *small round errors

- 4.3.3. It is possible to conclude that in 2025 over half (60%) of total visitors will travel to The London Resort from a home origin within 120 minutes driving time and most people within this distance band are assumed to be day visitors. A further 17% of total visitors are considered to be UK Domestic, travelling from beyond the 120-minute driving time radius around site and therefore likely to stay overnight either on site, or more locally to the development.

- 4.3.4. The data presented for 2029 illustrates that over half (54%) of total visitors will travel to The London Resort from a home origin within 120 minutes driving time and most people within this distance band are assumed to be day visitors. It is anticipated that 18% of total visitors to the site will be UK Domestic, travelling beyond 120 minutes, and likely to stay overnight; and nearly a third (28%) of visitors to travelling from Europe or Rest of World therefore likely to stay onsite or in a nearby development.
- 4.3.5. It is anticipated that in 2038 under half (48%) of total visitors will travel to The London Resort from a home origin within 120 minutes driving time most people in this distance band are assumed to be day visitors. Over one third (34%) of visitors at The London Resort will travel from overseas and likely stay onsite or locally to the development.

4.4 SUMMARY

- 4.4.1. It is considered that a 2025 UK domestic projection of 77% of total visitors allows for a robust assessment as it is assumed that the domestic profile could generate a greater impact on local transport networks. Research undertaken by Visit Britain and LDP has informed the further breakdown of European and Rest of the World home origins as shown in **Table 4-3**.
- 4.4.2. A synthetic trip distribution model has been developed using population data available from the 2011 Census and calibrated for the 2025 assessment year, against forecast assumptions produced by LDP. The performance of the gravity model has been examined through comparison of modelled and projected data and the results demonstrate that the model is able to closely match the likely trip distribution associated with the development. The trip distribution model presented above is therefore considered a robust assessment of the likely distribution of trips to The London Resort and will be applied to the LDP visitor projections for 2029 and 2038.

5 VISITOR 'DAY OF TRAVEL' TRIP ORIGIN

5.1 INTRODUCTION

- 5.1.1. As seen in **Table 4-3**, 37% of overall visitors are expected to visit from the surrounding area up to 60 minutes' drive from The London Resort and approximately 40% to be distributed evenly across the rest of the UK with the remaining 23% of visitor travelling from overseas.
- 5.1.2. This section therefore analyses the likely trip distribution on the 'day of travel' to the site considering that tourist trips to guest accommodation form part of separate trip purposes to existing land uses that do not form part of the NSIP application.
- 5.1.3. Visitors' overnight location is nevertheless important for the estimation of the trip distribution on the 'day of travel' since assessments and impacts on the highway network will be based on the location of the trip origin on the day, rather than the home origin.
- 5.1.4. Consequently, the location of the off-site accommodation for overnight visitors and the home origins for the day visitors will reflect a more likely forecast trip distribution on the day.
- 5.1.5. A number of variables have been considered and detailed within this chapter:
- Estimated likelihood of overnight stay based on distance travelled from home origin;
 - Estimated proportion of overnight visitors whose 'day of travel' origin might be their UK home residence, with the intention to stay in accommodation after visiting The London Resort; and
 - Existing accommodation options in the 60-minute drive area around the surrounding The London Resort site location and the entirety of London³.

5.2 LIKELIHOOD OF OVERNIGHT STAY

- 5.2.1. In order to determine the distribution of trips on the day of visit to The London Resort, a number of assumptions have been made regarding the correlation between distance travelled and proportion of overnight stays. The assumptions detailed within this section are consistent with market analysis and benchmarking against similar existing resorts, undertaken by LDP and research compiled by Volterra.
- 5.2.2. Volterra's analysis is underpinned by the following assumptions:
- All visitors with a home origin outside of the UK would stay overnight either on-site or within 60 minutes of the site. Exact overnight location is likely to be dependent upon trip purpose and whether their sole purpose is The London Resort or whether the trip is linked with London or somewhere else;
 - UK primary resident visitors travelling from within 60 minutes are considered to be day visitors;
 - UK secondary resident visitors travelling from between 60-120 minutes are predominantly considered to be day visitors but due to the unique offering of The London Resort it is accepted that a small proportion (10%) will stay overnight either on-site, or close to The London Resort;
 - UK Domestic tourists, residing more than 120 minutes from The London Resort, are all considered to stay overnight, 50% of these are already staying within London / Kent as part of a combined trip and visit The London Resort as a "day trip" from their temporary accommodation, the remaining 50% are making a sole-propose trip to stay in a hotel within 60-minutes from the development.

³ Provided to WSP by Volterra: London Resort Off-site Hotel Distribution

- 5.2.3. Therefore, those visitors whose home origin is within a 120-minute travel time are less likely to stay in nearby accommodation and such trips are less likely to be part of a holiday. This hypothesis still contemplates the potential for a short break with some overnight accommodation considered further in the sections below.
- 5.2.4. The anticipated split between day trips and overnight visits to The London Resort has been provided by Volterra and is assumed to remain the same for all assessment years. **Table 5-1** shows the expected percentage split between travelling on the day and overnight stays for each of the distance bandings.

Table 5-1 Visitors' Day Trip / Likelihood of Overnight Stay Split - Per Distance Category

Home Origin by distance	% of visitors travelling on the day*	% of visitors staying overnight	Total
UK- 0-60 minutes	100%	0%	100%
UK- 60-120 minutes	90%	10%	100%
UK- 120 minutes +	50%	50%	100%
Europe	0%	100%	100%
Rest of World	0%	100%	100%

**from their UK Home Origin or for Domestic Tourists, as a day trip from their temporary offsite accommodation. Source: Provided by Volterra and validated against London Tourism Report*

- 5.2.5. For the remainder of this report, “overnight visitors” refers to those staying either in the on-site hotel or at an off-site hotel, within 60-minutes of the site; “day trip” refers to visitors travelling from their UK home origin or for Domestic Tourists, from their temporary accommodation in which they are already assumed to be staying.
- 5.2.6. Applying the visitor profile proportions for 2025 to the likelihood of overnight stay percentages enables us to calculate the total % of visitors that will staying overnight, either on-site or within an off-site hotel, or travel from the UK Home Origin (or temporary off-site accommodation for domestic tourists). This analysis is presented in **Table 5-2**.

Table 5-2 2025 Visitors' Day Trip / Overnight Split

Home Origin by distance	% visitors	% staying overnight	% travelling on the day
UK- 0-60 minutes	37.04%	0.00%	37.04%
UK- 60-120 minutes	23.22%	2.32%	20.90%
UK- 120 minutes +	16.52%	8.26%	8.26%
Europe	15.12%	15.12%	0.00%
Rest of World	8.10%	8.10%	0.00%
Total	100.00%	33.80%	66.20%

- 5.2.7. It can therefore be seen that approximately 34% of total visitors in 2025 stay overnight and either begin their day of travel at the on-site hotels, thus internal within The London Resort and not generating any additional trips, or the off-site hotels and generating a local trip from within 60-minutes of the site.
- 5.2.8. The likelihood of overnight stay statistics are not predicted to change for the various assessment years and therefore the same methodology has been applied to the 2029 and 2038 visitor forecasts to calculate the percentage of visitors staying overnight and travelling on the day in 2029 and 2038 ; this analysis is shown in **Table 5-3** and **Table 5-4** respectively.

Table 5-3 2029 Visitors' Day Trip / Overnight Split

Home Origin by distance	% visitors	% staying overnight	% travelling on the day
UK- 0-60 minutes	30.18%	0.00%	30%
UK- 60-120 minutes	24.29%	2.43%	22%
UK- 120 minutes +	18.23%	9.12%	9%
Europe	17.78%	17.78%	0%
Rest of World	9.52%	9.52%	0%
Total	100%	38.84%	61.16%

- 5.2.9. It can be assumed that for 2029 overnight visitors will contribute to approximately 39% of all total visitors to The London Resort, staying on site hotels and thus not contribute to trips generated. Of those visitors travelling to the site as a day trip, half of these will be considered local trips (within 60 minutes).

Table 5-4 2038 Visitors' Day Trip / Overnight Split

Home Origin by distance	% visitors	% staying overnight	% travelling on the day
UK- 0-60 minutes	24.22%	0.00%	24%
UK- 60-120 minutes	24.21%	2.42%	22%
UK- 120 minutes +	17.04%	8.52%	9%
Europe	22.49%	22.49%	0%
Rest of World	12.04%	12.04%	0%
Total	100%	45.47%	54.53%

- 5.2.10. The data in **Table 5-4** illustrates that for 2038 overnight visitors will contribute to approximately 46% of all total visitors to The London Resort will be staying in the onsite hotels and thus not generating more trips on the road network. Of those visitors travelling to the site on the day, 24% of these will be within 60 minutes.

5.3 ON-SITE / OFF-SITE HOTEL SPLIT

- 5.3.1. WSP have undertaken further analysis to determine what proportion of the overnight visitors will stay on-site versus in off-site accommodation within 60-minutes of the Site.
- 5.3.2. Volterra have produced a Hotel Distribution Note broadly setting out the methodology and assumptions used to determine the distribution of off-site hotels required to accommodate projected visitors to The London Resort. Within their analysis, Volterra investigate the trip purpose for visitors which include those who have the theme park as their sole motivation for the trip.
- 5.3.3. Additional information supplied to WSP by Volterra demonstrated that in 2025, 28% of visitors with a UK Home Origin and 41% of international tourists had The London Resort as their sole motivator for the trip. Applying these percentages to the percentage of visitors staying overnight (**Table 5-2**) enables us to calculate the % of visitors from each home origin who have the theme park as their sole motivation, as shown in **Table 5-5**. The same analysis is presented for 2029 and 2038 in **Table 5-6** and **Table 5-7** respectively .

Table 5-5 Visitors with Theme Park as Sole Motivation, 2025

Home Origin by distance	% staying overnight	% theme park as sole motivation	% theme park as sole motivation
UK- 0-60 minutes	0.00%	28%	0.00%
UK- 60-120 minutes	2.32%		0.64%
UK- 120 minutes +	8.26%		2.30%
Europe	15.12%	41%	6.14%
Rest of World	8.10%		3.29%

Table 5-6 - Visitors with Theme Park as Sole Motivation, 2029

Home Origin by distance	% staying overnight	% theme park as sole motivation	% theme park as sole motivation
UK- 0-60 minutes	0.00%	30%	0.00%
UK- 60-120 minutes	2.43%		0.74%
UK- 120 minutes +	9.12%		2.79%
Europe	17.78%	41%	7.21%
Rest of World	9.52%		3.86%

Table 5-7 - Visitors with Theme Park as Sole Motivation, 2038

Home Origin by distance	% staying overnight	% theme park as sole motivation	% theme park as sole motivation
UK- 0-60 minutes	0.00%	25%	0.00%
UK- 60-120 minutes	2.42%		0.60%
UK- 120 minutes +	8.52%		2.13%
Europe	22.49%	41%	9.22%
Rest of World	12.04%		3.29%

- 5.3.4. It is accepted that whilst cost of stay is likely to be an influence, visitors whose trip is solely motivated by the theme park are more likely to stay on-site within one of the hotels rather than in an off-site in the local area. The proportion split of visitors with the theme park as their sole motivation has therefore been used to determine the domestic and international split in the on-site hotel. This is presented for all assessment years in **Table 5-8** to **Table 5-10**.

Table 5-8 2025 On-Site Hotel Visitor Split

Home Origin by distance	% on-site hotel	Domestic / International
UK- 0-60 minutes	0.00%	23.78%
UK- 60-120 minutes	5.25%	
UK- 120 minutes +	18.53%	
Europe	49.64%	76.22%
Rest of World	26.58%	

- 5.3.5. It can be seen from **Table 5-8** that the on-site hotel has a visitor mix consisting of approximately 24% visitors with a UK home origin and the remaining 76% are international guests. It is considered that 5% of visitors staying at the on-site hotel reside 60-120 minutes from the site, and a further 19% are UK Domestic Tourists residing beyond 120 minutes. Approximately 50% of the visitors staying on-site are projected to be European tourists, with the remaining 27% of on-site hotel guest travelling to The London Resort from the rest of the world.

Table 5-9 2029 On-Site Hotel Visitor Split

Home Origin by distance	% on-site hotel	Domestic / International
UK- 0-60 minutes	0.00%	24.17%
UK- 60-120 minutes	5.09%	
UK- 120 minutes +	19.09%	
Europe	49.39%	75.83%
Rest of World	26.44%	

- 5.3.6. The data in **Table 5-9** illustrates that the onsite hotel has a visitor mix similar to that found in 2025, with approximately 24% visitors from UK home origin and 76% international guests. Of those staying in the onsite hotel, approximately 50% are European visitors and 26% from the rest of the world.

Table 5-10 2038 On-Site Hotel Visitor Split

Home Origin by distance	% on-site hotel	Domestic / International
UK- 0-60 minutes	0.00%	16.16%
UK- 60-120 minutes	3.40%	
UK- 120 minutes +	12.76%	
Europe	54.61%	83.84%
Rest of World	29.23%	

- 5.3.7. Data presented in **Table 5-10** highlights that there will be a larger proportion of overseas visitors staying at the onsite hotels in The London Resort, compared with the split in 2025 and 2029. Overseas visitors will account for approximately 84% of onsite hotel visits compared with 76% in both 2025 and 2029.
- 5.3.8. Using the visitor projections provided by ProFun and discussed in detail with the SATD, it can be calculated that on-site hotel guests make up 12% of total daily attendance in 2025. Using research undertaken by Volterra and applying it to the UK Home Origin gravity model, we know that 34% of all visitors wish to stay overnight (**Table 5-2**) and thus if 12% stay on-site, the remaining 22% stay in off-site hotels. **Table 5-11** demonstrates how the percentage of on-site hotel visitors has been proportioned to represent total 12% of all

visitors and the distribution of guests staying in off-site hotels. The same methodology has been applied to 2029 and 2038, as shown in **Table 5-12** and **Table 5-13** respectively.

Table 5-11 2025 Overnight Visitor Distribution

Home Origin by distance	% staying overnight	% on-site hotel	% off-site hotel
UK- 0-60 minutes	0.00%	0.00%	0.00%
UK- 60-120 minutes	2.32%	0.62%	1.70%
UK- 120 minutes +	8.26%	2.18%	6.08%
Europe	15.12%	5.85%	9.27%
Rest of World	8.10%	3.13%	4.96%
Total	33.80%	11.79%	22.02%

Source: Consultant calculated using information from Volterra and On-Site arrival information

Table 5-12 2029 Overnight Visitor Distribution

Home Origin by distance	% staying overnight	% on-site hotel	% off-site hotel
UK- 0-60 minutes	0.00%	0.00%	0.00%
UK- 60-120 minutes	2.43%	0.77%	1.66%
UK- 120 minutes +	9.12%	2.89%	6.23%
Europe	17.78%	7.48%	10.30%
Rest of World	9.52%	4.00%	5.51%
Total	38.84%	15.14%	23.70%

Source: Consultant calculated using information from Volterra and On-Site arrival information

Table 5-13 2038 Overnight Visitor Distribution

Home Origin by distance	% staying overnight	% on-site hotel	% off-site hotel
UK- 0-60 minutes	0.00%	0.00%	0.00%
UK- 60-120 minutes	2.42%	0.34%	2.08%
UK- 120 minutes +	8.52%	1.28%	7.24%
Europe	22.49%	5.48%	17.02%
Rest of World	12.04%	2.93%	9.11%
Total	45.47%	10.03%	35.44%

Source: Consultant calculated using information from Volterra and On-Site arrival information

5.4 DAY TRIPS

PRIMARY RESIDENTS

- 5.4.1. Primary residents, living within 60-minutes of site, are all assumed to make a day trip and thus starting and ending their 'day of travel' at their UK Home Origin.

SECONDARY RESIDENTS

- 5.4.2. It is agreed that 90% of all secondary residents will have at 'day of travel' origin at their UK Home and similarly that 90% of secondary residents will have a destination on the evening of the assessed day, at their UK Home. It is assumed that a proportion of secondary resident will begin 'day of travel' at their UK home and end their 'day of travel' at either the on-site hotel or an off-site hotel within the local area; the same for the reverse.
- 5.4.3. Modelling secondary residents with 90% of trips having a 'day of travel' origin at their UK Home already takes account of these counteracting trips as number of overnight visitors is a percentage, meaning that the number of visitors whose day of travel is 'home – resort – hotel' will always equal the number of visitors whose day of travel is 'hotel – resort – home'.

DOMESTIC TOURISTS

- 5.4.4. LDP assume that all domestic tourists, residing beyond 120 minutes from The London Resort, will stay within 60-minutes of the site. This is disaggregated further down by Volterra, suggesting the 50% stay overnight for the purpose of The London Resort (discussed in section 6.3) and the remaining 50% are already staying within the local area as part of a combine's trip and therefore make a "day trip" from their temporary accommodation.
- 5.4.5. It is reasonable to assume that on the 'day of travel' a proportion of domestic tourists will have a UK Home Origin, with the intention to stay in a hotel that evening. WSP have assumed the following split:
- 50% of domestic tourists stay overnight;
 - 33% of domestic tourists are already staying overnight within 60-minutes as part of a combined trip and will therefore make a "day trip" from their temporary accommodation; and
 - 17% of domestic tourists have a 'day of travel' at their UK Home.
- 5.4.6. Similar to the secondary residents, the 17% of domestic tourists with a 'day of travel' origin at their UK home will account for the counteracting of 'home – resort – hotel' and 'hotel – resort – home' trips.

INTERNATIONAL TOURISTS

- 5.4.7. All international tourists are expected to stay overnight, on-site or within the local area, and so on the 'day of travel' any day trips are expected to be made from one of the forms of nearby accommodation.

5.5 SUMMARY

- 5.5.1. Applying the likelihood of overnight stay and day trip methodology discussed within this chapter, it is possible to present the full distribution on the 'day of travel' by home origin; this is shown in **Table 5-14**.

Table 5-14 2025 Visitor Day of Travel Origin

Home Origin by distance	% UK home origin	% local area*	% off site hotel	% on-site hotel
UK- 0-60 minutes	37.04%	0.00%	0.00%	0.00%
UK- 60-120 minutes	20.90%	0.00%	1.70%	0.62%
UK- 120 minutes +	2.75%	5.51%	6.08%	2.18%
Europe	0.00%	0.00%	9.27%	5.85%
Rest of World	0.00%	0.00%	4.96%	3.13%
Total	60.69%	5.51%	22.02%	11.79%

Source: Consultant calculated. *already staying within 1-hour as part of a combined trip, but making a “day trip” from their off-site temporary accommodation

Table 5-15 2029 Visitor Day of Travel Origin

Home Origin by distance	% UK home origin	% local area*	% off site hotel	% on-site hotel
UK- 0-60 minutes	30.18%	0.00%	0.00%	0.00%
UK- 60-120 minutes	21.86%	0.00%	1.66%	0.77%
UK- 120 minutes +	3.04%	6.08%	6.23%	2.89%
Europe	0.00%	0.00%	10.30%	7.48%
Rest of World	0.00%	0.00%	5.51%	4.00%
Total	55.08%	6.08%	23.70%	16.81%

Source: Consultant calculated. *already staying within 1-hour as part of a combined trip, but making a “day trip” from their off-site temporary accommodation

Table 5-16 2038 Visitor Day of Travel Origin

Home Origin by distance	% UK home origin	% local area*	% off site hotel	% on-site hotel
UK- 0-60 minutes	24.22%	0.00%	0.00%	0.00%
UK- 60-120 minutes	21.79%	0.00%	2.08%	0.34%
UK- 120 minutes +	2.84%	5.68%	7.24%	1.28%
Europe	0.00%	0.00%	17.02%	5.48%
Rest of World	0.00%	0.00%	9.11%	2.93%
Total	48.85%	5.68%	35.44%	10.03%

Source: Consultant calculated. *already staying within 1-hour as part of a combined trip, but making a “day trip” from their off-site temporary accommodation

- 5.5.2. The method for applying the UK Home Origin gravity model trip distribution to each of the visitor distributions presented in **Table 5-14 - Table 5-16** is discussed in detail within Chapter 6.

6 TRIP DISTRIBUTION BY AREA OF RESORT

6.1 INTRODUCTION

- 6.1.1. The development and validation of the UK Home Origin gravity model has been described in detail within Chapter 4 of this TN. It is considered that the gravity model is representative of the likely home origins of primary and secondary residents, and domestic tourists to the site.
- 6.1.2. LDP forecast that the penetration rates for different areas of The London Resort will vary depending on their offer and likely attraction. This Chapter details how the gravity model has been used to develop likely trip distribution for each of the areas of The London Resort.

6.2 MAIN GATE, SECOND GATE AND EVENTS

UK HOME 'DAY OF TRAVEL' ORIGIN TRIP DISTRIBUTION

- 6.2.1. The likelihood of overnight stay statistics and application of 'day of travel' origin assumptions have informed the quantity of visitors that are presumed to be day visitors to The London Resort. As shown in **Table 5-14**, 61% of total visitors to The London Resort in 2025 are considered to be day visitors travelling from within the UK. These guests will be distributed using the UK Home Origin Gravity Model outlined in Chapter 4, with the distance band percentages re-proportioned to represent those shown in **Table 4-2** for 0-60 mins, 60-120 mins and 120+ mins respectively.

LOCAL AREA 'DAY OF TRAVEL' ORIGIN TRIP DISTRIBUTION

- 6.2.2. LDP analysis demonstrates that Domestic Tourists, living beyond 120+ mins from the Site, are all forecast to stay overnight within 60-minutes of The London Resort. The penetration rates considered those who are already staying within Kent or London anyway as part of a combined trip with another attraction and thus visit the London Resort as a day trip from their temporary accommodation. As The London Resort is unlikely to be the sole-purpose for this overnight stay, the 'day of travel' trips originating from the local area have been distributed using the UK Home Origin Gravity Model – re-proportioned to represent 5.51% trips from within 60-minutes (including London) only.

OFF-SITE HOTEL 'DAY OF TRAVEL' ORIGIN TRIP DISTRIBUTION

- 6.2.3. As part of the NSIP application Volterra have prepared a note to consider how many resort guests may stay overnight and where they might stay in order to determine where they arrive from on the day of their visit to The London Resort. This report alongside a full distribution of off-site hotels by local authority is shown in **Appendix D**.
- 6.2.4. Volterra have assumed the likelihood of overnight stay for each of the market regions as detailed in Chapter 5 and using purpose of visit and current hotel occupancy rates, have determined an off-site hotel distribution for overnight guests. It is noted that WSP have applied this trip distribution for all overnight guests who are assumed to be making an additional stay as a result of The London Resort – in other words, those who have the development as the sole-purpose for their overnight stay and aren't staying on-site.
- 6.2.5. Volterra's report investigates the correlation between purpose of trip and preference of overnight accommodation location. It is reasonable to assume that while visitors whose sole trip purpose is The London Resort may wish to stay on site; however, affordability, resort fatigue or personal preference could influence their preference to stay off-site.
- 6.2.6. Similar to other international resorts of this nature, visitors staying off-site are forecast to stay within a 60-minute drive time from the proposed development site. Volterra analysis has resulted in a distribution of off-site hotel to Resort travel on a local authority level; including all local authorities within 60 minutes in addition to all London boroughs. Volterra considered three possible scenarios when undertaking their calculations:

- **Scenario 1** – Dartford and Gravesham react pro-actively to the increase in demand for hotels locally and sufficient new ones are built to accommodate this excess demand
- **Scenario 2** – the excess demand is not met locally (i.e. within Dartford and Gravesham) and so is distributed to other local authorities, which is likely to be London, based on staying preferences.
- **Scenario 3** – the excess demand is not met locally so is distributed to other local authorities it is assumed that staying in Thurrock is equally attractive to staying in Dartford or Gravesham and so the 'local' demand is shared with the hotel stock in Thurrock. This is due to the proposed parking and shuttle at Tilbury

6.2.7. For the purpose of our trip distribution assessment, we have assessed the impacts of Scenario 3 in which the hotel demand is still constrained by the available rooms in the district – demand that exceeds the available supply of hotel rooms is reallocated to hotels in the wider area. It also assumes that the local demand is shared with the hotel stock in Thurrock due to the proposed parking and ferry service

6.2.8. **Table 6-1** shows the distribution of off-site accommodation available in the 60-minute drive radius by relative location to The London Resort. The distributions show that in 2025 64% of available accommodation is located within the London boroughs with the remaining 36% in the local authorities surrounding the proposed development. In 2029, 66% of available accommodation is located within the London boroughs and the remaining 34% of accommodation in the surrounding boroughs of the development. The offsite hotel distribution in 2038 is similar to that presented in the previous two assessment years, with 67% of the offsite hotel distribution in London and the continued reduction of hotel supply to the West, with a 5% share of hotel distribution in 2038.

Table 6-1 Hotel Distribution within a 60 minutes' Drive (including all London) from The London Resort

Area relative to The London Resort	2025 Off-site hotel distribution	2029 Off-site hotel distribution	2038 Off-site hotel distribution
West	8%	6%	5%
East	8%	7%	6%
South	11%	9%	9%
North	10%	12%	13%
London	64%	66%	67%
Total	100%	100%	100%

Source: Consultant calculated using information provided by Volterra

6.2.9. Once the on-site guests have been reduced from the total number of guests staying overnight, the distribution presented in **Table 6-1** will be applied to the remaining proportion of visitors from each market penetration that are forecast to stay overnight.

DROP OFFS

6.2.10. It is reasonable to assume that some visitors will be dropped off at The London Resort in a car; WSP have assumed that drops offs are only likely to occur for visitors who reside within 60-minutes of the site and therefore the UK Home Origin gravity model distribution, for primary residents only, will be used to distribute these trips.

6.3 RD&E (“THE MARKET”) DISTRIBUTION

6.3.1. The London Resort includes a Retail, Dining and Entertainment (RD&E – “The Market”) zone that lies outside the pay-line and most trips to this area are forecast to be cross-visitation from guests already visiting the main theme parks or hotels.

- 6.3.2. ProFun have applied an adjustment to the total predicted RD&E visitor numbers to calculate the number of “external” and thus sole-purpose trips. ProFun have calculated that in 2025 this makes up 72% of RD&E visitors; meaning that approximately 28% of RD&E total attendance are sole-purpose trips. LDP and ProFun analysis considers that sole-purpose RD&E trips will predominantly be made by primary residents (27.9%) with a small fraction of domestic tourists (0.5%), whom will be staying overnight within the local area.
- 6.3.3. In order to assess the transport impact of the RD&E element, it is important to consider only those trips that wouldn’t otherwise have been made (to the Main Gate or Second Gate) and are therefore additional trips on the public transport or highway network.
- 6.3.4. The distribution of these unique trips is demonstrated in **Table 6-2** below.

Table 6-2 Home Origin Trip Distribution for RD&E

Home Origin	2025 Distribution	2029 Distribution	2038 Distribution
Residents 0-15 minutes	69%	76%	83%
Residents 15-30 minutes	23%	17%	12%
Residents 30-60 minutes	6%	4%	3%
Residents 60-120 minutes	0%	0%	0%
Domestic Tourists	2%	3%	2%
International Tourists	0%	0%	0%
Total	100%	100%	100%

Source: Consultant calculated using LDP physical planning document

- 6.3.5. The UK Home Origin gravity model has been used to represent the distribution of 27.9% of primary resident trips and the Volterra off-site hotel distribution has been used to represent the remaining 0.5% of sole-purpose RD&E trips. The full RD&E distribution, combining the primary residents and domestic tourists, can be found in **Appendix D**.
- 6.3.6. In 2029 and 2038, it is considered that 73% of trips to the RD&E are made by visitors already on-site, staying in a hotel or visiting the theme parks. The remaining 26.1% of primary residents and 0.7% of domestic tourists are distributed using the same methodology as 2025.

6.4 WATERPARK DISTRIBUTION

- 6.4.1. The Waterpark is being built as part of one of the hotels and therefore the majority of visits to the waterpark will be from guests already staying on-site, and thus internal trips. It is considered that primary residents, living within 60-minutes of the site, might visit the waterpark as a sole-purpose visit.
- 6.4.2. In 2025, 53% of visits to the waterpark are forecast to be internal from on-site hotels; the waterpark therefore 47% of visits to the waterpark are sole-purpose visits, generating a unique trip. The UK Home Origin gravity model has been used to represent the 47% of primary resident trips to the waterpark. The remaining trips are internal and are already accounted for.
- 6.4.3. In 2029 and 2038 and with the opening of the additional hotels, it is considered that 65% of trips to the Waterpark are made by visitors already staying on-site. The remaining 35% of primary resident trips are distributed using the same methodology as 2025.
- 6.4.4. A detailed distribution for the Waterpark is given in **Appendix E**.

6.5 ON-SITE HOTELS DISTRIBUTION

6.5.1. The London Resort development proposals detail the provision of 3,550 on-site hotel rooms (2,300 rooms in 2025) across a combination of budget, midmarket, upmarket and luxury hotels. Information provided by ProFun on the likely hotel occupancy rates suggests that on an 85th percentile weekend and weekday, all available rooms are forecast to be occupied and as such the distribution will need to consider the UK origin of each visitor who stays at the on-site hotel.

6.5.2. A detailed distribution for the on-site hotel, split by domestic and international tourist, is given in **Appendix F**.

DOMESTIC TOURISTS

6.5.3. As presented in **Table 5-8** in 2025, 23.78% of on-site hotel guests are forecast to be domestic tourists, with a home origin within the UK part choosing to stay overnight. All domestic arrivals and departures will be distributed using the respectively UK Home Origin gravity model for each assessment year, representative of the on-site hotel splits by home origin.

INTERNATIONAL TOURISTS

6.5.4. It is forecast that 76.22% of on-site hotel guests in 2025 will be international tourists arriving from various different ports into the UK. WSP have undertaken research into the methods of travel used to enter the UK and proportioned them based on likelihood of international visitor arrival – the resulting split is shown in **Table 6-3**. It is worth noting that arrivals via Eurostar were discounted from the overall proportions as they are able to disembark at Ebbsfleet international and use the people mover to transport to their on-site hotel destination.

Table 6-3 International Tourist arrival to the UK

Arrival to the UK	Airport / port	Local Authority	Distribution
Air	Heathrow	Hounslow	38%
	Gatwick	Crawley	22%
	Stanstead	Uttlesford	12%
	Luton	Luton	7%
	London City	Newham	2%
	London Southend	Southend-on-Sea	1%
Sea	Dover	Dover	5%
	Portsmouth & Southampton	Portsmouth	3%
Tunnel	Dover	Dover	10%
Total			100%

6.6 DAY OF TRAVEL TRIP DISTRIBUTION

6.6.1. As discussed within this chapter, the trip origin on the day of travel will be determined by the location of those that travel to/from home on the day of visit and those staying in overnight accommodation nearby. It is therefore considered that the on the day of travel, trips will be generated by either home origins within the UK, off-site hotels within a 60-minute radius of site (and including all of London) or internally from the on-site hotels.

- 6.6.2. Likelihood of overnight stay information provided by Volterra, and total daily attendance visitor numbers provided by ProFun were used to calculate the proportion of overnight visitors staying on-site versus staying offsite within 60-minutes of the Site.
- 6.6.3. The remaining proportion of visitors to the Main Gate, Second Gate (2029 onwards) and event space – guests who have a UK Home origin on the day of travel – has been applied to the LDP market penetration in order to achieve a combined distribution for all travel on the day that guest visit The London Resort.
- 6.6.4. Sole-purpose RD&E visitors are considered to primary travel from within 60-minutes, with a small number of domestic tourists coming off-site hotels (domestic tourists). Similarly, Waterpark visitors not combining their trip with a visit to the main parks or an off-site hotel stay, are thought to only travel from within 60-minutes of The London Resort.
- 6.6.5. When you consider the various trip distributions for the various areas of The London Resort, the resulting trip distribution is presented in **Table 6-4** by area relative to The London Resort within 60 minutes, for 60-120 minutes and for over 120 minutes.

Table 6-4 Trip Distribution on the Day of Travel - By Area Relative to The London Resort

Area relative to The London Resort	% Trip Distribution on the Day of Travel (2025)	% Trip Distribution on the Day of Travel (2029)	% Trip Distribution on the Day of Travel (2038)
UK- 0-60 minutes – West	5%	5%	5%
UK- 0-60 minutes – East	7%	7%	7%
UK- 0-60 minutes – South	10%	10%	10%
UK- 0-60 minutes – North	10%	9%	9%
UK- 0-60 minutes – London	46%	45%	48%
UK- 60-120 minutes	17%	18%	18%
UK- 120 minutes +	4%	5%	4%
Total	100%	100%	100%

Source: Consultant calculated based on various sources as outlined in each previous step.

6.7 SUMMARY

- 6.7.1. A comprehensive analysis of visitors' trip generation for The London Resort has been made of home origins and visitors' trip origin on the day of travel based on robust information provided to WSP by Volterra. The day of travel trip generation has been based on the likelihood of overnight stay and the anticipated spread of accommodation relative to the site to ensure the transport assessment considers a robust approach.
- 6.7.2. **Table 6-4** shows the final anticipated trip distribution on the day of travel for London Resort visitors which shows, in 2025, that more than three quarters (79%) of visitors would arrive from within the one-hour drive radius with around 46% of visitors expected from the London boroughs. The remaining 21%, from areas located at more than 60 minutes' drive from the site are considered to be secondary residents and domestic tourist day guests- travelling from their UK home origin on the day of travel.
- 6.7.3. In 2029, it can be seen that slightly fewer visitors (77%) would arrive from within the one-hour drive radius with approximately 45% of visitors expected from the London boroughs. In 2038, it can be seen that 79% of visitors

would arrive from within the one-hour drive radius with approximately 48% of visitors expected from the London boroughs.

- 6.7.4. This information will serve as a basis for the trip assignment analysis which will be covered in the model forecast report (TMR4).

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7 STAFF DISTRIBUTION

7.1 INTRODUCTION

- 7.1.1. This section outlines the methodology adopted to establish an appropriate trip distribution for The London Resort staff. The distribution used for staff trips is primarily underpinned by analysis undertaken by Volterra in their note titled “*London Resort Staff Distribution Note*” and analyses Journey to Work (JTW) data available from the 2011 Census. This is still the most suitable and relevant information regarding staff travel patterns in the local area and in other areas containing comparable sites. Details on the distribution forecasts and analysis are provided in the sections below.

7.2 ON SITE ACCOMMODATION

- 7.2.1. The London Resort development proposals include the provision of 2,000 single units within 500 dwellings allocated to staff on-site, reducing the need for travel to and from the site. During the peak season, it is considered that the single units will be at 90% capacity, thus providing accommodating for approximately 1,800 staff.
- 7.2.2. ProFun have considered the total number of operational staff required for the varying day types in each of the assessment years. As the 85th percentile day falls within the peak period of seasonal operation, the peak number of staff will be assessed.
- In 2025, it is estimated that there will be 8,591 weekday staff required during the peak season; with 1,800 staying on-site, the trip distribution therefore considered the arrival and departure of the remaining 6,791 staff;
 - In 2029, it is estimated that there will be 11,543 weekday staff; with 1,800 staying on-site, the trip distribution therefore considered the arrival and departure of the remaining 9,743 staff; and
 - In 2038, it is estimated that there will be 12,028 weekday staff; with 1,800 staying on-site, the trip distribution therefore considered the arrival and departure of the remaining 10,228 people.

7.3 JOURNEY TO WORK DISTRIBUTION

- 7.3.1. The Census 2011 Method of Travel data⁴ was interrogated to understand trip origins of working population within the local area. Parameters of the data consulted are as follows:
- Data has been obtained up to the level of Middle Layer Super Output Areas (MSOA) as the based geographical division;
 - MSOA data has been obtained for the Immediate Area (IA) to The London Resort, defined as the three MSOAs that surround the proposed site location;
 - The MSOA have been selected for the IA as destination to reflect commuting trips attracted by the IA; and
 - Trip origins have been selected by Local Authority (LA) and MSOA.
- 7.3.2. The distribution of trips attracted to the IA and its trip origins by Local Authority are shown in **Table 7-1**. The table shows that most trips are fairly local with 57% arriving from the closest local authorities, Gravesham and Dartford, and approximately 69% of work-related trips originated from the local area if Medway is included. Despite The London Resort being located in Dartford, it is considered that the majority of commute trips

⁴ Table WU03EW: ‘Location of usual residence and place of work by method of travel to work from Nomis website.

originate in Gravesham due to Dartford being better connected to larger employment location such as London and such residents of Dartford are likely to capitalise on this.

- 7.3.3. Travel distance from local authority to site has been reviewed for all local authorities and demonstrated that 29% of car commute trips are made locally – within a 15-minute drive time of the immediate area. Volterra analysis concluded that there is a clear different between the trips made by car and public transport, reflecting that car times are generally quicker.

Table 7-1 Local Area MSOAs JTW Trip Attraction Distribution

County	Origin Local Authority	IA Trip Distribution
Kent	Gravesham	34%
Kent	Dartford	23%
Kent	Medway	12%
London	Bexley	5%
Kent	Sevenoaks	4%
Kent	Maidstone	3%
Kent	Tonbridge and Mailing	2%
London	Greenwich	2%
London	Bromley	2%
Kent	Swale	2%
London	Lewisham	1%
Essex	Thurrock	1%
Kent	Canterbury	1%
Kent	Ashford	1%
Kent	Tunbridge Wells	1%
Various	Other	8%
Total		100%*

Source: Volterra report and ONS Crown Copyright Reserved

- 7.3.4. Typically, the JTW trip attraction to the local area represents a good method to estimate the likely trip staff distribution for a proposed development. Nevertheless, due to the fundamental difference between the IA existing and proposed land uses it is considered appropriate to explore the work-related trip attraction to more comparable sites to the one proposed. Employment opportunities at The London Resort will be more attractive and might mean that people are more willing to travel further than they currently do.
- 7.3.5. The MSOAs containing Thorpe Park, Westfield Stratford City shopping mall and Bluewater shopping mall⁵ have been analysed due to the land uses of these sites being more comparable to The London Resort. In terms of trips attracted, average accessibility and geographical location these sites are considered to provide a better approximation of the likely work-related trip attraction to the proposed site.

⁵ MSOA codes: Thorpe Park (E02006396), Bluewater (E02005033) and Westfield (E02000726)

7.3.6. An initial analysis regarding distance travelled was undertaken with results showing that a much higher proportion of trips are made from distances further away from the destination and thus staff were willing to travel further to work at a place of employment such as Bluewater, Westfield London or Thorpe Park. The average distance travelled to Bluewater and Thorpe Park is on average 24km which is twice as much in terms of distance (12km more) than employment trips made to the IA.

7.3.7. Given the mixed conditions of the proposed site the following considerations have been made:

- Westfield shopping mall has greater accessibility due to its location and a large population based in London. Similarities also exist in terms of public transport accessibility with Greater London via fast railway services to/from Ebbsfleet International railway station;
- Bluewater is a local site next to the IA, comparable due to its large-scale employment attractor within a local area closer to the proposed development site although public transport accessibility can be considered poorer than the proposed development due to its distance further from high speed rail links and connections to central London; and
- Thorpe Park represents a similar leisure attraction and whilst the travel patterns might differ due to its location farther from the proposed site and its proximity to rail links, it offers a useful demonstration of trip distribution associated with an existing entertainment resort offering a variety of comparable land uses.

7.3.8. The average car distribution of trips to comparator sites, taken from Volterra's staff distribution report, is presented in **Table 7-2**.

Table 7-2 Average Car distribution of trips to comparator sites

Distance Band	IA	Bluewater	Westfield	Thorpe Park	Average
< 15 mins	29%	16%	6%	19%	18%
15 – 30 min	40%	32%	12%	32%	29%
30 – 60 mins	26%	20%	34%	35%	29%
60 – 90 mins	3%	4%	28%	8%	11%
90 – 120 mins	0%	1%	10%	3%	3%
>120 mins	1%	3%	10%	3%	4%

Source: Volterra report, Table 5

7.3.9. Volterra have applied the average distribution of trips among comparator sites to the local MSOAs in proportion to their existing propensity to commute to the IA. The updated trips have been aggregated to local authority level to give a new trip distribution, reflecting of staff willingness to travel further to an employment site such as The London Resort.

7.3.10. Before the distribution could be finalised, an additional adjustment was made to account for the enhanced connection at Tilbury port (Thurrock) and thus the promotion of Tilbury as a key location for staff arriving by public transport to utilise the ferry service across the river to the pier at The London Resort. Volterra have developed a model to estimate the expected trips for catchment areas north of the river in order to determine how trips might be distributed if current transport connections are significantly improved with the provision of a ferry link. The resultant trip distribution for staff travelling to the resort, calculated by Volterra, can be seen in **Table 7-3**.

Table 7-3 Staff Trip Distribution, Peak Season

Origin	2025	2029	2038
On-site accommodation*	16%	12%	12%
Gravesham	24%	26%	26%
Dartford	16%	17%	18%
Thurrock	8%	9%	9%
Medway	8%	8%	8%
Bexley	6%	7%	7%
Greenwich	4%	5%	5%
Bromley	2%	2%	2%
Southwark	1%	1%	1%
Maidstone	1%	1%	1%
Sevenoaks	1%	1%	1%
Lewisham	1%	1%	1%
Croydon	1%	1%	1%
Canterbury	1%	1%	1%
Lambeth	1%	1%	1%
Swale	1%	1%	1%
Other	8%	8%	8%

*2,000 single units within 500 dwellings, assumed 90% capacity and therefore provides accommodation for 1,800 in all three assessment years

7.4 SUMMARY

- 7.4.1. This chapter outlines the methodology adopted to calculate the likely staff trip distribution associated with The London Resort, taken from Volterra's staff distribution note submitted separately and to be read in conjunction with this TN. JTW data available from the 2011 census has been used as the most suitable and relevant analysis for likely staff travel patterns currently associated with the IA.
- 7.4.2. JTW analysis was undertaken based on a distance bands and considerations were given to the number of trips attracted, accessibility and relative geographical location to the proposed London Resort when selecting other MSOAs for comparison. It is accepted that existing commuting patterns to the site ignore the attractive nature of working at The London Resort and doesn't take into consideration the proposals for significant improvements to connectivity north of the river at Tilbury through the provision of a park and ride, and the ferry link across the river.
- 7.4.3. Comparisons were made between travel patterns to the current site and MSOAs containing Westfield Stratford City Shopping Mall, Thorpe Park and Bluewater Shopping Mall. Subsequently, the IA trip distribution has been adjusted to reflect similar distribution patterns to those other comparable sites assessed.
- 7.4.4. The resulting distribution anticipated for staff travel to The London Resort shows that in 2025: 16% of staff will be staying on-site and making an internal trip and an additional 40% of staff trips come from Dartford and Gravesham. In 2029 and 2038 it is considered that 12% of staff will be staying on-site in accommodation and an additional 43% (44% in 2038) and expected to commute from within Dartford or neighbouring Gravesham.

- 7.4.5. Following Volterra's thorough analysis of existing employment, considering local variations and travel patterns from comparable land use sites, the forecast staff trip distribution is therefore considered a robust assessment of the likely distribution of staff trips to the development.

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8 SUMMARY AND CONCLUSIONS

8.1 SUMMARY

- 8.1.1. WSP have been commissioned to provide transportation and highways advice. It forms part of a suite of documents intended to inform and support a Nationally Significant Infrastructure Project (NSIP) Development Consent Order (DCO) application.
- 8.1.2. The London Resort is forecast to be a world renowned, global destination theme park offering the highest standard content and facilities, making it the first leisure complex of its kind in the UK. This Technical Note has been prepared to identify and outline the methodology used to ascertain the likely visitors and staff trip distribution associated with the proposed development.
- 8.1.3. It is accepted that The London Resort site is unique in terms of on-site leisure offering, its relative location to London and proximity to the extensive sustainable travel services available within the UK. There are therefore considered to be limited similarities with attractions in the UK and few comparable examples across Europe and the rest of the world. Whilst Disneyland Paris and Europa Park offer an international demonstration of visitor travel patterns, the distinctive characteristics of The London Resort site mean that limited conclusions regarding visitor trip distribution can be drawn from these resorts.
- 8.1.4. In order to calculate the likely trip distribution for visitors to The London Resort and ascertain the level of attraction relative to their location from the site, a trip distribution model has been developed and calibrated using population data from the 2011 Census, grouped by distance travelled from home origin to site.
- 8.1.5. The Gravity Model has been used to calculate the trip distribution for day visitors travelling from a UK home origin to The London Resort on the day of travel. The Gravity Model has also been used to calculate the distribution associated with visitors whose sole purpose of visiting The London Resort is the RD&E zone.
- 8.1.6. An off-site hotel distribution was provided by Volterra and has been used to generate the trip distribution for visitors that are forecast to stay overnight within 60 minutes of site and therefore on the day they visit The London Resort, trips are generated from the temporary accommodation to the development. It is accepted that the trips from home origins to temporary accommodation form part of a separate trip origin and therefore have not been considered for the purpose of this assessment.
- 8.1.7. Likely staff trip distribution associated with The London Resort has been calculated using Journey to Work (JTW) data available from the 2011 Census and has been analysed as the most suitable and relevant information regarding staff travel patterns in the local area and in other areas containing comparable sites.
- The trip distribution methodology for visitors is based on:
- LDP market analysis providing the visitor breakdown of UK / Domestic, European and International;
 - A detailed review of anticipated visitor home origins for UK visitors based on the construction of a validated trip distribution model;
 - Analysis of the likelihood for overnight stay of all visitors based on home origin distance to The London Resort and domestic/international overnight visitors' statistics;
 - A breakdown of existing temporary accommodation availability in the surrounding area and likely distribution relative to The London Resort;
 - Assessment of the likely distribution on the day of travel to The London Resort to ascertain the visitor day trip origin;
- 8.1.8. Staff trip distribution to The London Resort site has been taken from Volterra's staff distribution note which uses:
- An evaluation of the staff trip distribution based on Journey to Work Data from the most recent data from Census 2011 at the MSOA level;

- Appraisal of staff distribution for similar amenities in England with and evaluation of the anticipated London Resort staff distribution based on expected distance travelled by Local Authority in the surrounding area.

8.2 CONCLUSIONS

- 8.2.1. The distribution of visitors, recognising the nature and scale of the proposed development site, is forecast to generate a large proportion of visitors with home origins outside the UK; in 2025 approximately 15% from Europe and 8% from the rest of the world. Domestic (UK) visitors are expected to represent just over three quarters (77%) of overall visitors.
- 8.2.2. Compared to other international resorts of this scale, the forecast distribution and assumed reliance on overnight accommodation represent a significant factor in the distance and distribution of trips to the development.
- 8.2.3. Using the likelihood of overnight statistics outlined in Chapter 5, it is assumed that all visitors travelling from a home origin outside of the UK will be overnight guests. Domestic tourists are equally likely to be day visitors and stay overnight and a small proportion of secondary residents will also decide to stay overnight due to the unique offering at The London Resort. It is therefore expected in 2025 that 34% of overall visitors will stay overnight either on-site at the site, within a 60-minute radius in one of the neighbouring local authorities or in London.
- 8.2.4. Combining the day visitors and overnight guests travelling from nearby accommodation, it is possible to determine a final day of travel trip distribution which is considered to represent a robust assessment of the impacts of these trips on the local highway network.
- 8.2.5. Trip distribution of trip origins/destinations on the day of travel therefore contemplates the proposition of visitors that are likely to stay in the region either before, after or before and after their visit to The London Resort. With overnight stays considered, a 'day of travel' trip distribution is considered and forecasts that over 79% of visitors will begin or end their trip in nearby locations (76% in 2029), up to 60 minutes' drive from The London Resort site, with approximately 42% travelling from the London Boroughs (40% in 2029). The effect on UK and local tourism will be considered as part of the DCO application where the travel distribution forecasts maybe reviewed as part of a sensitivity test if necessary.
- 8.2.6. In a separate analysis, the staff trip distribution has been assessed. The analysis of Journey to Work (JTW) data to Swanscombe resulted in mainly local trip origins for staff. Comparisons with trip distributions for UK sites which exhibit some similarities suggest that staff may travel from slightly further afield to work at The London Resort.
- 8.2.7. The Swanscombe staff trip attraction has been adjusted based on average distance travelled to comparable UK sites and populations within the region using UK census statistics. As a result, the expected distance to be travelled by staff will increase compared to the existing journeys to work shown by the Swanscombe JTW census data. The resultant staff trip distribution suggests that 52% of the staff to The London Resort will reside within 10km from the site.

9 BIBLIOGRAPHY / REFERENCES

Reference	Link
Web Tag unit m2	https://www.gov.uk/government/publications/webtag-tag-unit-m2-variable-demand-modelling
Generalised cost	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/313222/webtag-tag-unit-a1-3-user-and-provider-impacts.pdf
Census 2011 Household Composition	http://www.nomisweb.co.uk/census/2011/ks105ew

Appendix A

LDP MARKET ANALYSIS

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Appendix B

GENERALISED COST VALUES

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Appendix C

UK ORIGIN DISTRIBUTIONS

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Appendix D

FULL DISTRIBUTIONS

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Appendix E

DAY OF TRAVEL DISTRIBUTIONS

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