

THE LONDON RESORT

The London Resort Development Consent Order

BC080001

Environmental Statement Volume 1: Main Statement

Chapter 2 – Site description

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Regulation 12(1)

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Chapter Two ◆ Site description

INTRODUCTION

2.1 This chapter describes the site of the proposed London Resort development. It begins with a description of the local context and proceeds to describe individual areas of the site. The principal environmental designations are identified but detailed consideration of environmental assets and features is provided in the relevant topic-based chapters of this ES. Complementary information of a descriptive and contextual nature is also presented in the following DCO application documents.

- Access and rights of way plans and public rights of navigation plans (document reference 2.9).
- Environmental features plans (document reference 2.10).
- Habitats of protected species, important habitats or other diversity features and waterbodies plans (documents reference 2.11 and 2.12).
- Heritage designation plans (document reference 2.14).

SITE CONTEXT

Location

2.2 The London Resort Project Site lies approximately 30 km east-south-east of central London on the south and north banks of the River Thames, in the ceremonial counties of Kent and Essex. The Project Site is 413.07 hectares (ha) in area. For clarity the section of the Project Site to the south of the Thames is referred to in the ES as the 'Kent Project Site' and that to the north of the river is identified as the 'Essex Project Site'. The sites are identified in figure 1.2 (document reference 6.3.1.2) of this ES and are respectively 387.53 ha and 25.54 ha in area.

2.3 The Kent Project Site occupies much of the Swanscombe Peninsula, formed by a meander in the river, and includes a corridor for transport connections extending generally southwards to the A2(T) trunk road. The Essex Project Site includes areas of land east of the A1089 Ferry Road and the Tilbury Ferry Terminal, which currently provides passenger services across the river to Gravesend and incorporates the London International Cruise Terminal. It also includes the Asda Roundabout at the junction of the A1089 St Andrews Road / Dock Road, Windrush Road and Thurrock Park Way.

The local context: Kent

- 2.4 The Kent Project Site is bisected by the municipal boundary between the boroughs of Dartford to the west and Gravesham to the east. It lies mostly in the designated area of the Ebbsfleet Garden City, established in March 2015. The urban areas of Stone, Greenhithe, Ingress Park and Swanscombe lie to the west and south. These are largely residential in character, with commercial uses concentrated on Stone's river frontage. To the east of the Kent Project Site lies Northfleet, a neighbourhood of mixed residential and commercial uses. Across the southern and south-eastern parts of the Peninsula is an extensive industrial area on Manor Way.
- 2.5 Each of these settlements has a district centre providing community, retail and commercial services. The locality is also served by the principal town centres in the two boroughs, at Dartford and Gravesend (in Gravesham). Beyond Greenhithe to the south-west of the Kent Project Site lies Bluewater shopping centre. This is a significant retail development that provides 154,000 m² of retail and leisure floorspace and 13,000 car parking spaces on a 97 ha site. In April 2017, Dartford Borough Council (DBC) resolved to grant planning permission for an expansion in total retail and catering floorspace of up to 30,000 m². Car parking at the centre would be maintained at current levels. Construction work on the extension has yet to commence as at the date of this application.
- 2.6 Ebbsfleet Garden City is being developed in accordance with an Implementation Framework adopted by Ebbsfleet Development Corporation (EDC) in 2017. The Ebbsfleet Implementation Framework aims to deliver 12,843 new homes, 82 ha of employment and commercial land and 70,310 m² of retail floorspace across six major development sites including Eastern Quarry to the south of Swanscombe. The Implementation Framework allocates land to the south and east of Ebbsfleet International Station for a new mixed-use commercial centre and transport hub, with new high density residential neighbourhoods.
- 2.7 The Ebbsfleet Implementation Framework's proposals for the Swanscombe Peninsula identify the general footprint of the Resort north of the North Kent railway as '*land subject to [the] London Entertainment Resort NSIP process*'. The Implementation Framework's proposals for the Swanscombe peninsula also envisage the retention of ecological assets where possible, full public access to the Thames waterfront, pedestrian and cycleway links between the Resort and surrounding communities, public transport connections, the retention of existing employment in the local area and the protection of local residential amenity.
- 2.8 To the south of the A2(T) the land is more open and rural in character, with small settlements amid farmland and woodland blocks. Most of this area lies in the metropolitan green belt.
- 2.9 The principal rail links in the locality include the High Speed One (HS1) railway, which provides high-speed connections between London and various destinations in Kent and Eurostar train connections between London, Paris, Brussels and other European cities.

Ebbsfleet International Station is located to the south of Swanscombe Peninsula. The railway passes partly in cutting and partly in a tunnel beneath Swanscombe Peninsula *en route* to and from London St Pancras International Station.

- 2.10 The North Kent Line, which crosses the southern edge of the Swanscombe Peninsula in an east-west direction, provides local services between London and North Kent and onwards to the Kent coastal towns by way of the Kent Coast Line, with nearby stations at Greenhithe, Swanscombe and Northfleet. A part of Swanscombe station lies inside the DCO Order Limits but the stations are otherwise located outside the Kent Project Site.
- 2.11 Strategic highway routes in the locality include the A2(T), which provides a connection between Junction 2 of the M25 motorway to the west and Junction 1 of the M2 motorway beyond Gravesend to the east. The Dartford Tunnels and Queen Elizabeth II Bridge crossings of the River Thames lie approximately 3km to the west of the Project Site. Highways England recently secured consent for upgrade works to the A2(T) Bean and Ebbsfleet junctions and has consulted on options for a new road between Kent and Essex, known as the Lower Thames Crossing.
- 2.12 On 12 April 2017 the Secretary of State for Transport announced that the preferred route for the Lower Thames Crossing is a bored tunnel passing under the River Thames east of Gravesend and Tilbury. A Development Consent Order (DCO) application for the Lower Thames Crossing was submitted on 23 October 2020.
- 2.13 The principal local roads adjacent to the Kent Project Site include the A226 London Road / Galley Hill Road that runs east-west across the southern side of the Swanscombe Peninsula, with the B255, B259 Southfleet Road and the B262 / A2260 Springhead Road providing north-south links between the A226 and the A2(T).
- 2.14 The locality has a distinctive landform, modified by human activity. From the low-lying southern bank of the Thames the terrain generally rises southwards to a ridge that is typically 25m above ordnance datum (AOD). However, the natural topography has been altered considerably by extensive mineral workings – principally the quarrying of chalk for the manufacture of cement and other building products. The extensive voids created by mineral extraction include Eastern Quarry to the south-west of the Kent Project Site, which is being developed as a new residential neighbourhood as part of the Ebbsfleet Garden City initiative established by the Ministry of Housing, Communities and Local Government ('MHCLG'). Some of these former chalk pits have also been used for waste landfill, including an area to the west and north of Ebbsfleet International Station inside the Project Site. Areas of the peninsula have been tipped with substantial quantities of cement kiln dust (CKD), a by-product of the cement industry. In places this material has been over-tipped with dredgings from the River Thames.

The local context: Essex

- 2.15 The north bank of the River Thames opposite Swanscombe Peninsula is also extensively developed. Local settlements include West Thurrock, South Stifford, Grays and, to the

north-east, the major port and town of Tilbury.

- 2.16 The Essex Project Site lies immediately to the east of the port of Tilbury in the unitary borough of Thurrock. Tilbury is London's primary operational port and offers over 10 km of quayside providing 56 operational births, supported by 465,000 m² of warehouse floorspace. The port handles a range of cargoes including Roll-on/Roll-off (RoRo), container, wood and paper products, grain and liquid and dry bulk materials. Where not developed for warehousing, the port is mostly hard-surfaced to accommodate the storage and movement of vehicles, containers and bulk materials.
- 2.17 On the bank of the Thames along the southern edge of the port stand four wind turbines operated by Scottish Equity Partners. The turbines have a maximum height to blade tip of c. 135 metres and together have a generation capacity of 9.2 megawatts (MW).
- 2.18 At the south-east corner of the Port lies the Tilbury Ferry Terminal incorporating the London International Cruise Terminal. The cruise terminal comprises a restored grade II* listed two-storey building and a large floating landing stage extending out into the river, connected to the land by a series of bridge structures. The landing stage is included in the statutory listing. Passenger ferries to Gravesend operate from the eastern part of the terminal, which also accommodates an arts activity centre.
- 2.19 In February 2019 the Secretary of State for Transport made a DCO for a new port 2 km to the east of Tilbury port, known as Tilbury2, following an application by Port of Tilbury London Limited. This development occupies the site of the former Tilbury Power Station and will include a RoRo terminal and a Construction Materials and Aggregates Terminal (CMAT), with associated infrastructure including rail and road facilities and modifications to the existing marine infrastructure. The CMAT will be used for the stockpiling of construction materials and some processing of aggregates for the production of asphalt and concrete products.
- 2.20 Construction of Tilbury2 is underway. The development will incorporate extensive hard-surfaced pavements, extensions to the existing river jetty including creation of a new RoRo berth; new conveyors and material handling, the erection of welfare and ancillary buildings, a new 10,200 m² warehouse, a new link road from Ferry Road to Fort Road and the formation of a rail spur and sidings. The effect of these proposals will be to provide a new deep-sea jetty and increase the size of the port of Tilbury from a land area of around 383 ha to 445 ha.
- 2.21 The Essex Project Site lies between the ports of Tilbury and Tilbury2. More generally the proximity of CMAT to the Kent Project Site should significantly facilitate the construction of the London Resort, amongst other things enabling construction materials to be delivered in bulk by barge and reducing construction road traffic.
- 2.22 On 24 June 2020 the Secretary of State for Business, Energy and Industrial Strategy accepted for examination a DCO application by Thurrock Power Limited to develop a flexible generation plant on land north of Tilbury sub-station in Thurrock. The proposed

plant would provide up to 600 megawatts (MW) of electrical generation capacity on a fast response basis, together with up to 150 MW of battery storage capacity. The main site for the Thurrock Power project is c. 2 km to the north-east of the Tilbury Ferry Terminal.

- 2.23 Local settlements include the towns of Tilbury, 1 km to the north of the ferry terminal, Chadwell St Mary, a further 2 km to the north, and the larger urban area of Grays, 4 km to the north-west. Strategic road access is provided by the A1089 Dock Approach Road / Dock Road / Ferry Road, which connects to the main A13 east-west route to the M25 motorway and London beyond. The surrounding countryside is either flat or gently undulating and features prominent high voltage electricity transmission lines, generally running in parallel pairs.
- 2.24 Tilbury lies on the railway between Southend-on-Sea and London Fenchurch Street, which passes through West Ham station at which passengers can connect to the District and Hammersmith and City lines on the London Underground and the Docklands Light Railway network. Tilbury railway station is 1.5 km from the ferry terminal.
- 2.25 Between the Essex Project Site and Tilbury² lies Tilbury Fort, a star-shaped fortification managed by English Heritage and a popular local visitor destination. The fort originated in Tudor times and features angular bastions, moats and lines of guns facing onto the Thames. The site is a Scheduled Monument and contains a grade II* listed barracks.

THE KENT PROJECT SITE

- 2.26 The Kent Project Site comprises approximately 387.53 hectares of land in a complex shape, shown in figure 1.2 (document reference 6.3.1.2). It includes land on and to the south of the Swanscombe Peninsula on which the Resort and its main public transport interchange would be focused, and a corridor of land required for road connections running in a broadly north-south direction between the Peninsula and the A2(T). The Kent Project Site also includes a section of the A2(T) corridor approximately 3.5 km in length between the established junctions at Bean in the west (A2(T) / B255) and Pepper Hill (A2(T) / B262) in the east.
- 2.27 The Ordnance Survey grid references for the approximate extremities of the Swanscombe Peninsula and the Access Corridor are as follows (expressed as eastings and northings):

Swanscombe Peninsula

559463, 175540
 561189, 176417
 559900, 174838
 561333, 174940

Land between Swanscombe Station and the A2(T)

560619, 174864

561144, 174670

561197, 172768

561892, 172527

A2(T) corridor

558190, 172647

558212, 172589

562584, 172074

562510, 171970

- 2.28 The majority of the Kent Project Site on the Swanscombe Peninsula comprises open, low-lying land with extensive former CKD tips and other brownfield former industrial land. A number of drains, filtration systems, aeration lagoons and other features are also present. Much of the peninsula has re-vegetated naturally but areas of bare ground remain. Other parts of the Kent Project Site on the Swanscombe Peninsula include the existing Manor Way, Northfleet and Kent Kraft industrial estates.
- 2.29 The HS1 railway crosses the Peninsula on a south-east to north-westerly alignment. The southern section is in cutting and the remainder in a tunnel. A pumping station used for the management of ground water levels is located to the north-east of the tunnel portal.
- 2.30 The Swanscombe Peninsula supports extensive areas of marshland including Black Duck Marsh, Botany Marsh and a marsh around the HS1 tunnel portal. Broadness Marsh at the northern tip of the Peninsula was historically a saltmarsh, but now has a raised terrain as a result of CKD tipping and the deposition of river dredgings. Broadness and Botany Marshes are bordered in part by industrial uses.
- 2.31 The Peninsula has an irregular topography because of historical CKD tipping activities and the deposition of dredgings from the River Thames. Two raised areas of tipped material rise to over 12-13 m AOD. A large part of the north of the Peninsula has been raised from an assumed original height of 2-3 m AOD to approximately 8.75 m AOD. Where it meets the River Thames, the Peninsula is surrounded by flood defence embankments and terraces that rise to approximately six metres AOD. Small areas of remnant salt marsh are located at the base of the flood defences.
- 2.32 In terms of its underlying geology, the Kent Project Site lies in the eastern part of the London Basin, which is underlain by chalk. This chalk is designated by the Environment Agency as a principal aquifer and is the main source of potable water in the area. The majority of the Kent Project Site thus lies within a groundwater Source Protection Zone (SPZ). The Peninsula itself is overlain by alluvium, comprising silts and clays.
- 2.33 The banks of the Peninsula feature occasional jetties and inlets, some of which are used

- for the mooring and landing of boats. An inlet at the northern end of the Peninsula, known as Broadness Creek, has associated boat sheds.
- 2.34 As shown in the *Access and rights of way plans* (document reference 2.9), a small number of public footpaths cross the Kent Project Site including Saxon Way, which runs along the western flood embankment from Ingress Park to the west before turning eastward across the upper central area of the Swanscombe Peninsula to connect with the northern end of Manor Way. In addition, Pilgrims' Way runs from the northern end of Swanscombe High Street to the north-western area of the Peninsula. Pedestrians gain access to additional areas of the Peninsula on an unauthorised or permissive basis.
- 2.35 Natural England is currently improving coastal access along a 78 km stretch of the Kent coast and Thames Estuary between Grain and Woolwich, as a part of the England Coast Path initiative. The identified route of the coastal path runs along the north-western edge of the Swanscombe peninsula as far as Broadness Creek and then heads eastwards to the eastern shore before joining Manor Way to the south.
- 2.36 High voltage electricity transmission lines cross the Peninsula on a south-east to north-westerly alignment, and include a 190 m tall 'super pylon', constructed in 1965, that lifts the transmission lines over the Thames to a similar tower on the northern bank. These lattice towers are of interest from an industrial heritage perspective, being the UK's tallest electricity pylons, and are prominent local landmarks.
- 2.37 Other features of industrial and cultural heritage interest in the Kent Project Site include Bell Wharf and White's Jetty on the western shore of the Swanscombe Peninsula. White's Jetty is an early example of precast concrete construction and provided deep water access for the former Associated Portland Cement Manufacturers Limited's cement factory on the peninsula, which closed in 1990. The jetty is abandoned and has become a roost for sea birds.
- 2.38 The most significant heritage and geological feature in the Kent project site is Baker's Hole to the north-west of Ebbsfleet International station, where quarrying and other excavations yielded a wealth of large flint hand axes and flakes, representing the discarded remains of stone tool production by a population probably consisting of Neanderthals active in the early-middle Paleolithic period, c. 250,000 years ago. Baker's Hole is both a Scheduled Monument and a Site of Special Scientific Interest (SSSI).
- 2.39 North of the HS1 tunnel portal is a derelict wastewater treatment works. A Port of London Authority radar beacon is located near the northern tip of the Peninsula.
- 2.40 Natural habitats on the Kent Project Site include patches of woodland, scattered areas of scrub and improved and semi-improved grassland. Wetland habitats include wet grasslands at Black Duck Marsh and grazing marsh and reed beds in Black Duck and Botany Marshes, with ponds of standing open water and drainage ditches. There are also fragments of saltmarsh and mudflats within the flood defence embankments.

- 2.41 The Kent Project Site does not contain any international or national wildlife designations. Much of Botany Marsh is a Local Wildlife Site (LWS) and part of the Ebbsfleet Marshes LWS, which includes wet woodland and reed beds, is located in the Ebbsfleet Valley section of the Kent Project Site. However, in a letter dated 30 November 2020 Natural England advised LRCH of its intention to consider most undeveloped areas of the Swanscombe Peninsula for potential notification as a Site of Special Scientific Interest (SSSI), in view of the presence of habitats attractive to invertebrates, scarce plants and breeding birds.
- 2.42 Areas of degraded post-industrial land, including disused pits and landfilled areas supporting mostly grassland and scrub, are present across the section of the Kent Project Site that extends southward towards the A2(T). This area also contains a large surface level car park and associated roads serving Ebbsfleet International Station.
- 2.43 The A2(T) / A2260 junction (referred to here as Ebbsfleet Junction) allows eastbound and westbound traffic to leave and join the A2(T) at the southern end of the Kent Project Site. Springhead Nurseries and the HS1 railway are located to the immediate east of the A2(T) / A2260. A former electricity compound located immediately to the west is currently being developed for housing, a school and a hotel.
- 2.44 The Pepper Hill (A2(T) / B262) junction provides access to Northfleet to the north and Northfleet Green, Southfleet and Betsham to the south. The (A2(T) / B255) junction at Bean provides connections to Stone and Greenhithe via the B255 and the A296. Blocks of woodland border the A2(T) at the A2(T) / B255 junction. Bluewater shopping centre is located less than 1km from this junction and is reached directly from the B255. At Greenhithe the B255 connects to the A226, which provides access to the Swanscombe Peninsula from the west.

THE ESSEX PROJECT SITE

- 2.45 The Essex Project Site comprises approximately 25.54 hectares of land in a complex shape, shown in figure 1.2 (document reference 6.3.1.2). It includes the following main elements.
- A trapezoidal area of level hard-surfaced land used currently for vehicle storage. This area is bounded by railways on its northern and western sides, and a drainage channel to the east. Road access is gained from Fort Road at the south-eastern corner of the Essex Project Site. To the south lies Tilbury Railport, a large logistics shed with railway sidings operated by Maritime Transport Limited.
 - An irregular strip of land along the corridor of the A1089 Ferry Road, including areas of vegetation and hardstandings, and along the corridor of Fort Road to the east and far as the entrance into the main car storage site described in the previous bullet.
 - The Tilbury Ferry Terminal and the eastern half of the floating landing stage out in the river, including connecting bridges and a small triangular area of open space to the east.

- The Asda Roundabout on the A1089 to the north. This roundabout forms the junction between the A1089 St Andrews Road / Dock Road, Windrush Road and Thurrock Park Way, the latter of which serves an Asda superstore. This junction has been included in the draft Order Limits for the London Resort DCO in the event that traffic assessment reveals a need for physical highway enhancements at this location.
- 2.46 As explained in more detail in chapter 14: *Cultural heritage and archaeology* of this ES, the London International Cruise Terminal, the passenger ferry terminal and the floating landing stage that serves both are together listed grade II*. The landing stage was designed by the Port of London Authority's architect Sir Edwin Cooper and was officially opened in 1930 by Prime Minister J Ramsey MacDonald. In June 1948 the SS Empire Windrush docked at the landing stage with 500 migrants on its first voyage from the Caribbean.
- 2.47 Public rights of way in the Essex are limited generally to public roads, with the exception of a footpath shown in the *Access and rights of way plans* (document reference 2.9) that runs from Fort Road northwards along the eastern side of the Essex Project Site, then westwards alongside the railway to a gated level crossing. Once north of the railway the path continues to a point close to the junction of The Beeches and Hume Avenue, in a residential neighbourhood of Tilbury.
- 2.48 The Ordnance Survey grid references for the approximate extremities of the Essex Project Site are as follows (expressed as eastings and northings):

Tilbury ferry terminal and coach and car park

564323, 175732
 564798, 175918
 564225, 175038
 564751, 175016

Asda Roundabout

563179, 177314
 563223, 177314
 563140, 176811
 563210, 176802