

# **Thames Gateway FQP**

Interchanges & Lorry Parks Scoping Study

November 2008

## **Document history**

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# **1** Introduction

#### 1.1 Overview

- 1.1.1 In moving towards a 'low-carbon economy,' it is desirable that more use should be made of alternative modes of transport (eg water and rail) for moving freight. However, it is inevitable that road haulage will be needed at some stage to make the initial collection and/or the final delivery. Facilities therefore need to be provided where goods can quickly and efficiently interchange between modes in the course of their journey, as much as commuters do between the car, the train and the bus or underground.
- 1.1.2 The development of new or enhanced freight interchange facilities is supported by a framework of national, regional and sub-regional policies. Whilst critical to encouraging greater 'modal shift' for longer-distance freight, can generate a range of planning, transportation and environmental issues in the local hinterland around an interchange, which may hinder the development of such facilities and, in turn, the growth in use of alternative modes.
- 1.1.3 A similar challenge exists for the provision of lorry parking, for whilst again there is consensus that more and/or better sites are needed where drivers and their vehicles can park in 'recognised' safe and secure locations, particularly overnight, finding suitable sites can be difficult due again to the potential local issues and concerns which may then be generated.
- 1.1.4 This report provides an initial scope of the following areas:
  - Existing intermodal freight interchanges<sup>1</sup> within the FQP area and surrounding hinterland, showing key commodities handled, facilities available and scale of throughput / maximum capacity where known;
  - Review of demand forecasts to indicate future scale of demand for interchange and storage against capacity of existing facilities, to provide outline indication of "need" for additional capacity;
  - Additional water- and rail-based services to link outer and inner London for both bulk and non-bulk commodities to minimise level of final road collection and delivery mileage, including best practice in handling and transportation and associated estimates for critical mass / breakeven distances;
  - Liaison with TfL, PLA and Network Rail on broad locations for enhanced and/or new interchanges;
  - Existing official lorry parking facilities within the FQP area, showing facilities available and maximum capacity;
  - Liaise with Boroughs, Metropolitan Police, trade associations and operators of existing 'official' facilities to identify known hotspots for HGV-related parking, PCNs and crime;
  - Broad scale of demand for additional distribution facilities (interchange / storage / lorry parking) within the FQP area and surrounding hinterland, and broad locations with potential for development within existing planning frameworks.

<sup>&</sup>lt;sup>1</sup> The remit for the study does not cover single-mode interchanges, eg road to road warehouses and transhipment depots

1.1.5 This report sets out work undertaken on mapping of existing facilities, demand for additional facilities, SWOT analysis of alternative sites and recommendations for further studies. The FQP area covers the Boroughs of Barking & Dagenham, Bexley, Dartford, Greenwich, Hackney, Havering, Lewisham, Newham, Redbridge and Tower Hamlets. In view of the important logistics facilities which exist in Thurrock on the opposite side of the Thames to Dartford, these have also been included.

# 2 Freight interchange facilities

#### 2.1 Introduction

- 2.1.1 For the purposes of this report, a freight interchange is defined as a site where goods are transferred between more than one mode to enable the goods to complete a transit. Interchanges may simply provide handling facilities between modes, or may also carry-out value-added activities on the goods between modes, such as storage and processing.
- 2.1.2 As the population of the Thames Gateway expands, servicing the additional residential and business communities could overburden the ability of the road network to cater for both long-distance and local distribution. It is therefore desirable to consider the role that other modes could play in addressing this need, exploiting the River Thames and parallel rail corridors on either side.
- 2.1.3 As well as serving the major port facilities, the River Thames, its tributaries and the local rail network are also used for local deliveries of a range of commodities, including aggregates, beer, cement, cereals, edible oils, motor vehicles, petrochemicals, scrap metal, steel, sugar and waste products.
- 2.1.4 Some wharves also provide for trans-shipment, where goods arriving in larger vessels are then loaded into smaller vessels for distribution up river into London. A report produced by GLA in 2005 noted that the operational wharves in London save over 950,000 trips by heavy goods vehicles a year on London's roads.<sup>2</sup>
- 2.1.5 In contrast to more than 80 river interchanges on the Thames, the area of interest has 12 active rail freight terminals, the majority of these focused on single commodities, particularly aggregates.
- 2.1.6 Like the ports and wharves, these interchanges perform an important role in delivering large volumes of goods (up to 1500 tonnes per train) over a range of distances to and from the local area (as far afield as Cornwall and the North of England), with consequent savings in HGV traffic which would otherwise occur across the regional and local road networks.

#### 2.2 Existing facilities

2.2.1 Appendix 1 lists the extent of modal interchange facilities within the area of interest. Around two-thirds of the sites are located north of the River Thames. Each mode of transport is represented as shown in Table 1 below, whilst tonnages moved via the ports and wharves on the River Thames are shown in Table 2.

#### 2.3 Demand forecasts for interchanges

2.3.1 Growth in population, trade and other economic activity will inevitably lead to increased distribution activity to, from, within and through the Thames Gateway. If further modal shift is to be promoted within the area of interest, in line with policy at national, regional and sub-regional levels, additional interchange capacity will be required. An indication of the scale of this requirement can be drawn from recent reports, as set out below.

<sup>&</sup>lt;sup>2</sup> Safeguarded Wharves on the River Thames: London Plan Implementation Report, GLA (2005)

## Table 1 Interchanges by modes served / Borough

Mode / status	Road	Rail	River	Air
Active	81	12	54	1
Disused	8	4	28	0
Total	89	16	82	1
Barking & Dagenham	27	6	23	0
Bexley	15	0	15	0
Dartford	3	0	3	0
Greenwich	12	2	12	0
Hackney	0	0	0	0
Havering	3	0	3	0
Lewisham	1	0	1	0
Newham	14	3	11	1
Redbridge	0	0	0	0
Tower Hamlets	3	0	3	0
Sub-total Thames Gateway FQP area	78	11	71	1
Thurrock	11	5	11	0
Total	89	16	82	1

## Table 2 River freight through ports and wharves by Borough, 2001 (source PLA)

Borough	Thousand tonne	es 2001
Barking & Dagenham	3,109	
Bexley	1,187	
Castle Point	299	
City	77	
Dartford	3,124	
Gravesham	2,777	
Greenwich	3,093	
Hammersmith & Fulham	84	
Havering	22	
Lewisham	0	
Medway	862	
Newham	1,374	
Southwark	0	
Thurrock	35,305	
Tower Hamlets	1,123	
Wandsworth	688	
Total	53,124	
Greater London	10,757	
Essex	35,604	
Kent	6,763	
Thames Gateway FQP area (excluding Thurrock)	13,032	

#### Port and wharf facilities

- 2.3.2 The 2005 GLA report noted forecasts by the PLA (shown in Table 3 below), which suggested 42% growth over 2001 levels, with considerable increases forecast in unitised traffic (lift on, lift off and roll on, roll off) and in aggregates, provided sufficient port and wharf capacity could be achieved. Key policy directions within the London Plan and other Mayoral Strategies would have growth impacts additional to the PLA's trade forecasts, primarily in the handling of waste and recyclables.
- 2.3.3 The report noted that additional capacity would be required in the lower Thames (below Greenwich) for sea-going vessels, and that if enough wharves remain available on the upper Thames there would be scope for some increase in the trans-shipment of goods by water.
- 2.3.4 An estimate of existing capacity against forecast throughput was made in the report, as shown in Table 4 below, indicating a particularly pressing need for additional capacity in the aggregates sector.

#### Rail freight interchanges

- 2.3.5 Forecasts of rail freight traffic in and around the area of interest have been made by various public and private-sector organisations in recent years, on a similar supply-driven basis to the PLA's forecasts above, where an assumed level of interchange capacity forms one of the influences on forecast traffic growth.
- 2.3.6 Recent industry forecasts of rail freight growth<sup>3</sup> have confirmed the trend of earlier forecasts from Government (through the former Strategic Rail Authority), using the GB Freight Model as a common basis for the forecasting, with growth of around 30% in tonnage anticipated by 2014/5 over 2004/5. Within the bulk sector (eg aggregates, steel, petrochemicals and waste) tonnage is anticipated to grow by 10%. By contrast, the non-bulk sector (eg deepsea containers and retail goods) is forecast to triple.
- 2.3.7 In terms of interchange capacity, whilst the forecast in bulk traffic should generally fall within the capacity of existing rail terminals in the local area, there is acknowledgement from Government policy and industry that the Greater South East (GSE) region<sup>4</sup>, as the single largest generator of freight traffic in the UK, is particularly lacking in rail freight interchange facilities for non-bulk traffic, due to significant rationalisation of rail freight terminals by British Rail and end users over the last 50 years.
- 2.3.8 In 2006 TfL produced an estimate of the disaggregated traffic arising from the industry forecasts for 2014/5, for traffic having an origin or destination in London, but which did not consider new market opportunities which might arise in the interim. The estimates for the area of interest (broadly relating to TfL's London East and South sectors) are shown in Table 5 below.
- 2.3.9 Forecasts were also been produced from the GB Freight Model in connection with a new interchange proposal in Bexley<sup>5</sup>, which suggested a need to provide 17.7 million tonnes of handling capacity for non-bulk traffic by 2015, within an area of the GSE extending out from the Thames Gateway to the A1 in the north and the M3 to the west, compared to capacity amongst existing non-bulk interchanges in the local area of 3 million tonnes.

<sup>&</sup>lt;sup>3</sup> Forecasts by FTA / RFG as quoted in Freight Route Utilisation Strategy, Network Rail (2007)

<sup>&</sup>lt;sup>4</sup> Defined as the South East, London and adjoining Counties within the East of England

<sup>&</sup>lt;sup>5</sup> Howbury Park SRFI: The Need Case – Rail, Intermodality LLP for ProLogis Developments Ltd (2007)

Cargo classification	2001	2015
Lift on – Lift off	4,348	13,300
Roll on – Roll off	7,497	10,500
Coal	2,093	1,000
Oil	18,429	20,800
Conventional	690	780
Aggregates	10,023	16,100
Sugar	1,298	1,470
Vegetable Oils	653	720
Oil Seed	487	370
Animal Feed	148	230
Cereal	1,068	1,500
Chemicals	543	950
Forest Products	2,086	3,000
Steel	746	920
Ores & Scrap	1,597	2,060
Cement	738	480
Total	52,444	74,180

## Table 3 Forecasts for trade on River Thames 2015, thousand tonnes (source PLA)

## Table 4 Estimated port/wharf capacity against forecast demand, thousand tonnes (source PLA)

Cargo classification	Forecast trade 2015	Current capacity	Surplus/shortfall
Lift on – Lift off	13,300	17,600	4,300
Roll on – Roll off	10,500	10,800	300
Coal	1,000	1,500	500
Oil	20,800	21,400	600
Conventional	780	1,000	220
Aggregates	16,100	13,125	-2,975
Sugar	1,470	1,520	50
Vegetable Oils	720	850	130
Oil Seed	370	600	230
Animal Feed	230	320	90
Cereal	1,500	1,800	300
Chemicals	950	1,070	120
Forest Products	3,000	3,080	80
Steel	920	960	40
Ores & Scrap	2,060	2,220	160
Cement	480	1,800	1,320
Total	74,180	79,645	

Sector	Inbound growth	Outbound growth
London East		
Construction	775,600	-95,200
Forest products	0	599,900
Petrochemicals	135,100	0
Automotive	37,800	22,400
Channel Tunnel	-305,900	0
Other*	365,715	446,985
London South		
Construction	326,200	128,800
Forest products	0	0
Petrochemicals	0	0
Automotive	0	0
Channel Tunnel	0	0
Other*	0	0

#### Table 5 Forecast growth in rail freight tonnes pa to/from London, 2014/5 over 2004/5 (source TfL)

\*'Other' includes consumer goods, waste/recyclates and containers

#### 2.4 Opportunities to promote modal shift

- 2.4.1 In seeking opportunities to increase modal shift through additional water- and rail-based services, reference can be made to other European cities, which have sought to exploit the three surface modes of transport road, inland waterway and rail to provide distribution services. Examples include:
  - Paris has recently announced the building of three new multimodal interchanges in the Isle-de-France region (Limay-Porcheville, Bruyères-sur-Oise and Bonneuil-sur-Marne) and the extension of an existing container terminal at the port of Gennevilliers, in response to growing numbers operators seeking multimodal transport solutions;
  - Leading French retailer Monoprix is trialling a new distribution service in Paris, with SNCF and Renault, to supply all 60 Paris stores by rail, representing around 210,000 pallets of general goods and non-alcoholic drinks a year, or 120,000 tonnes of merchandise. Goods currently arrive at La Halle Gabriel Lame, but SNCF has plans for seven other distribution centres in the Ile de France region. A fleet of 18 Renault gas-powered vehicles will be used, and SNCF Fret plans to install a gas filling station at each of these depots;
  - Trams are being trialled in Amsterdam and Zurich for movement of freight and waste, and Volkswagen uses trams to connect its factories in Dresden.

- 2.4.2 The various services (and associated infrastructure) that could be established to improve modal shift in the Thames Gateway area can be categorised as follows
  - International and inter-regional transit services, which remove traffic which would otherwise pass through or close to the Thames Gateway area examples include using deepsea, shortsea or coastal shipping, or rail freight services, to bypass the area altogether. This would require interchanges and/or route infrastructure in the surrounding regions;
  - International and inter-regional trunking services, which deliver long-distance freight to and from the Thames Gateway area, as close as possible to the ultimate collection or delivery points, limiting road movements to "last mile" distribution again this could use deepsea, shortsea or coastal shipping, or rail freight services. This may require new interchange capacity (and associated value-added facilities) in the local area to enable viable inter / multi-modal services to be established;
  - Local delivery services, which allow further penetration of urban areas by transhipment of freight from larger to smaller vehicles, such as feeder barges, heavy or light rail vehicles. This may require local interchange facilities, preferably attached to other existing facilities where possible, eg wharves, pallet hubs or public transport interchanges.
- 2.4.3 The viability of inter/multi-modal services in each of these categories will need to take account of the inevitable requirement for road haulage at one or both ends of the journey. Whilst services for bulk commodities will tend to be viable down to short distances (eg sand by rail from Dagenham to Bow, edible oils by ship from Erith to Purfleet), those for non-bulk commodities (eg retail deliveries) may require longer hauls to achieve breakeven relative to road. In this latter category, recent experience suggests a threshold of 50 miles for rail to achieve a viable "local" delivery service. Note that these are only guidelines and each flow (and associated infrastructure) will need to be considered on its own merits, taking account of any existing operations and economics, and any scope for Government or European grant funding.

#### 2.5 Opportunities for enhanced and new interchange locations

- 2.5.1 Whilst there is a degree of untapped capacity available at existing river and rail freight interchanges, the existence of such capacity does not in itself always guarantee that growth in modal shift from rail can be stimulated, as this will depend on the location, scale, range and quality of the existing interchange facilities. In some cases, new facilities will be required, either in more suitable locations for modern market requirements and/or with a scale or range of modern handling and other value-added facilities. The development of a new deepsea port and logistics park at London Gateway is in part a replacement for more constrained facilities closer in to London.
- 2.5.2 Key objectives for creating attractive interchange facilities are:
  - Locational to place these as close to the final points of consumption as possible, to minimise the "last mile" costs of delivery by road;
  - Functional to provide the widest possible range of storage and/or processing facilities on site, such that the additional costs of interchange between modes can then be offset by being co-located with other complementary "value-adding" services;
  - Spatial to achieve sufficient "critical mass" of activity on site to enable the interchange to function as a viable business, covering both the up-front investment as well as ongoing operating costs.

- 2.5.3 These objectives will inevitably be constrained by other factors, such as:
  - The need to deliver out to, or collect from, multiple locations, which impacts on the optimum location;
  - The presence of neighbouring uses (eg residential areas), which can impact on permitted operations;
  - Constraints on land availability or capacity on connecting transport networks.
- 2.5.4 As with other areas of infrastructure and the built environment, it is unlikely that all the existing interchanges in the local area will continue to function indefinitely, with some of these being replaced in due course by new facilities (eg London Gateway). This "turnover" of interchange facilities was acknowledged in the GLA report on safeguarding wharves, which noted that some of the recommended sites were no longer feasible for interchange activity due to landside or navigational constraints, or changes in the markets and commodities previously served.
- 2.5.5 The development of new or enhanced interchange facilities will tend to raise public concerns in the local areas, regarding potential increases in lorry traffic, noise and other emissions. As an example, the London Gateway scheme and all three proposals for strategic rail freight interchanges around the M25 have led to Public Inquiries, with only 2 of these 4 schemes achieving planning permission to date.
- 2.5.6 The hierarchy of national, regional, Mayoral and Borough policies together provide the overall framework for directing development of interchange facilities within the Thames Gateway. The current position on "preferred" locations for interchanges in London is largely defined by GLA policy on wharves and TfL policy on rail freight, as follows:

#### Wharves (GLA 2005)

- Nineteen operational wharves are viable or capable of being made viable for cargo-handling and should be identified as Safeguarded Wharves (see Appendix);
- Six currently non-operational, road served, or wharves that are set to resume cargo-handling or related uses are capable of being made viable for cargo handling uses and should be identified as Safeguarded Wharves (see Appendix).

#### Rail freight interchanges (TfL 2007)

- Large, new, multimodal distribution centres on the periphery of London, adjacent to the M25 or motorways radiating out of London to allow rail to develop its role in primary retail distribution;
- Facilities to support international freight using High Speed 1, for primary retail, automotive and white goods traffic;
- Smaller, single-user freight terminals, generally offering basic functions for bulk businesses, particularly in the construction and waste sectors, concentrating on local markets. These could be developed from freight terminals in current operation to take additional rail volumes where operationally and commercially feasible, and from the development of terminals that have fallen into disuse. There is an increasing need for temporary sites reflecting the growth in large construction sites served by rail;
- Draft guidelines to London Boroughs on sites with potential for rail freight development (Spring 2007) identified 15 sites in the Thames Gateway FQP area (see Appendix), of which 3 (Angerstein Wharf, Barking and Dagenham) were considered to have significant potential.

#### Recent interchange developments

- 2.5.7 In addition to sites identified by the GLA, PLA and TfL, two major interchange schemes have recently secured planning permission, namely:
  - London Gateway, Shellhaven (DP World): London Gateway aims to establish the UK's first major port for more than 25 years, with construction work will begin later this year on the 1,850 acre site, near Stanford-le-Hope in South Essex. The complex will include a national "hub" port, capable of accommodating the world's largest container ships. The port will add an additional 3.5 million TEU (Twenty foot Equivalent container Units) to the UK's port capacity. Alongside will be built Europe's largest logistics park, offering 880,000m<sup>2</sup> of industrial and distribution floorspace. The site will have extensive rail links to the container port and logistics park, with the aim of around one-third of the container traffic moved by rail.
  - Howbury Park, Slade Green, Bexley (ProLogis): proposed as the first of the 3-4 "strategic" rail freight interchanges around the M25, in line with Government policy guidance, Howbury Park seeks to reinstate a disused main line connection from the Slade Green depot, from which to create a new rail-linked distribution park. The site will comprise 198,000m<sup>2</sup> of distribution space, with each unit on site having a dedicated siding access to one side of the building, as well as direct road access to a new intermodal terminal on site. The rail infrastructure has been designed to accept up to 12 trains per day, and the developers have included provision for a Freight Quality Partnership and a funding package to encourage the development of rail freight services. ProLogis is now marketing the site to potential occupiers, ahead of the start of construction.

#### 2.6 Recommendation

2.6.1 Further discussion is recommended with key stakeholders to determine how far the provision of new or enhanced interchange facilities can be provided within the Thames Gateway FQP area to accommodate forecast growth and encourage greater modal shift from the road network.

# 3 Lorry parking

#### 3.1 Introduction

- 3.1.1 Lorry drivers may work away from home for much of the time, travelling to unfamiliar parts of the country and sleeping in their cabs overnight. A significant proportion of traffic to, from and through the Thames Gateway (more than 80% according to DfT statistics) is hauled by foreign drivers passing through the area to and from the ports and Channel Tunnel, who may have limited understanding of English, limited knowledge of local geography and regulations, and equally limited financial resources.
- 3.1.2 The solitary nature of lorry driving, and a large proportion of foreign drivers and vehicles, can attract criminal activities by or against vehicles and their drivers, with examples including theft from vehicles, assaults on drivers, or trafficking of drugs, contraband and illegal immigrants.
- 3.1.3 In addition, the clusters of industrial and distribution activity in the Thames Gateway can suffer from lorries being parked in unsuitable locations, either due to drivers arriving early to an area to ensure on-time collection or delivery from a customer's premises, or due to the requirement to take a statutory rest break. Such uncontrolled parking can lead to localised crime, congestion, litter, fuel / oil pollution, or other social issues such as prostitution. The Belvedere FQP identified specific issues in the Belvedere Employment Area related to lorry parking, centred on local traffic congestion and litter.
- 3.1.4 The main highway corridors into London along the A13, A2 / A206 / A2016 are known to be affected: a leading insurance company<sup>6</sup> cites the A13 between London and Tilbury as one of the UK's leading "hotspots" for lorry theft, whilst data from TruckPol<sup>7</sup> (the national intelligence unit forming part of the Association of Chief Police Officers' Vehicle Crime Intelligence Service) shows the Barking and Dartford areas as having the highest level of incidents in London during the first half of 2007 (see Figure overleaf).
- 3.1.5 Like freight interchanges, lorry parking facilities are generally viewed with concern by local residents and Boroughs, not just because of the additional traffic attracted to the local area, but also the potential illegal, criminal and other antisocial impacts on the local neighbourhood. Development pressures also constrain the availability of sites for lorry parking in and around London, as relatively high land values (up to £0.4 million per Hectare in the Thames Gateway<sup>8</sup>) mean that the land will invariably have a more lucrative use for other purposes than lorry parking, where income is unlikely to be more than £10 per vehicle per night. A recent casualty of this was the former Truckworld lorry park in Thurrock (which had space for 300 vehicles), where the owner ultimately closed the site at the end of July 2006 in the face of "irresistible" pressures to sell the land on for redevelopment.
- 3.1.6 Yet without adequate provision within the Thames Gateway area, the problems of uncontrolled lorry parking are unlikely to reduce. TfL report that already some 23,000 HGVs drive into London every day, and forecasts for onward growth in HGV traffic to, from and through the area, as well as an increasing presence of foreign vehicles and drivers, is likely to exacerbate the situation.

<sup>&</sup>lt;sup>6</sup> http://www.ace-marine-baracuda.com/template7.asp?pageid=366

<sup>&</sup>lt;sup>7</sup> <u>http://www.truckpol.com/index.htm</u>

<sup>&</sup>lt;sup>8</sup> <u>http://www.colliers.com/Content/Attachments/UnitedKingdom/Industrial\_Rents\_Map\_2005Final.pdf</u>



### Figure 1 Map of reported incidents against HGVs 2007 Q1/Q2 (source TruckPol)

#### 3.2 Existing facilities

3.2.1 It is apparent that there is a general lack of lorry parking facilities within the area of interest, with only the following sites identified to date:

Borough	Site	Location	HGV spaces (cost)	Services	24-hour
Dartford	Merrychest Cafe	A2 Bean	30 (free)	Cafe, toilets	Yes (parking)
Havering	Rom Valley Way	A125 Romford	Unknown	None	Unknown
Lewisham	Canadian Avenue	A21 Bromley	Unknown (£8)	None	6 hour limit
Thurrock	Motorway Services	M25 Thurrock	65 (£18 including food voucher)	Accommodation, toilets, showers, shop, restaurant	Yes
Thurrock	Titan Truck Park	A126 Thurrock	200-300 (£15)	Toilet	Yes

#### Table 6 Lorry parking facilities in the Thames Gateway area

3.2.2 The closure of the Truckworld site in Thurrock (see above) and its 300 HGV spaces therefore represented a significant loss in local capacity, as the nearest lorry parks lie further afield in London, Essex and Kent.

- 3.2.3 Research indicates a number of other lorry parks which have been lost to redevelopment, including:
  - Dagenham Lorry Park site redeveloped for Channel Tunnel Rail Link;
  - Frog Island, Dagenham lorry park being redeveloped as a waste recycling plant;
  - Hackney Lorry Park site redeveloped as a City Farm;
  - Lawrence House Lorry Park, Lewisham local authority seeking to redevelop the site;
  - Seven Kings Lorry Park, Redbridge local authority seeking to redevelop the site;
  - North Stifford, Thurrock planning permission gained for coach and lorry park but never taken up, application made in 2008 for use of site for Sunday market.

#### 3.3 Opportunities for enhanced and new lorry park locations

- 3.3.1 The opportunity exists to use lorry parking as a positive contribution to traffic management, sustainable distribution and crime reduction, by developing suitable facilities which can attract drivers away from less desirable locations, backed by enhanced enforcement in these latter areas.
- 3.3.2 Lorry parks should provide a secure location for drivers to rest without fear of theft or personal attacks. This will help raise the quality and image of the industry, important if current recruitment problems are to be addressed. Sites for goods vehicle parking, services and amenities should be well-located on approved lorry routes, signed and promoted amongst the road haulage industry. This will help encourage operators to adhere to these routes. In terms of providing secure locations, the Metropolitan Police has indicated interest in having a presence on some lorry parks.
- 3.3.3 An example of a modern purpose-built lorry park is shown below at the Night Owl Truck Stop in Rugby<sup>9</sup>, which covers a site 450m long by 130m wide, situated off the M1 motorway close to the DIRFT distribution park. The site offers a range of services for drivers and vehicles, including:
  - 240 HGV parking spaces;
  - Toilet, shower and laundry facilities;
  - Shops, restaurant, bar, television lounge, meeting facilities;
  - Cash point;
  - Telephone and fax facilities;
  - CCTV, electric fencing, floodlighting, automatic numberplate recognition cameras, security patrol;
  - Forecourt with high speed pumps;
  - Jet wash for vehicles.

<sup>&</sup>lt;sup>9</sup> <u>http://www.nt-truckstops.com/locations/rugby.htm</u>

#### Figure 2 Lorry park in Rugby, Warwickshire (photo Google Earth)



- 3.3.4 In determining possible locations for new lorry parks within the Thames Gateway area, a number of factors will need to be considered:
  - Driver criteria a survey of 100 drivers on decision-making factors for lorry parks suggested cleanliness, security, quality of food, amenities and ambience were key factors, noting that drivers typically spend less than £10 per visit, which then impacts on commercial viability;
  - Proximity the more remote a parking area is from the trunk road network and/or industrial / distribution developments, the less likely it is to be used;
  - Location lorry parking generates a range of potential local impacts, including noise and vibration, emissions, visual intrusion, litter and in some cases social problems, such as prostitution and illegal immigration;
  - Enforcement considerable Police and local authority resources may be taken up with enforcement of lorry parking, and the costs need to be factored into any consideration of alternative options which may reduce this need;
  - Development control as with travellers, lorry parking tends to be (or is seen to be) a "bad neighbour" use, which restricts the willingness or ability of local authorities to identify and gain support for suitable development sites. That said, the planning system can be used in a positive way to encourage (or oblige) relevant types of industrial / distribution / infrastructure development to make provision for local amenities which could include lorry parking;
  - Finance as with the haulage industry in general, lorry parks are a commercially marginal activity. Finance for development and/or operation may have to be provided from other sources eg Government funding or developer contributions.

#### 3.4 Recommendations

- 3.4.1 Given the challenge of developing lorry parks as standalone activities within the Thames Gateway, innovative solutions may be needed. Examples elsewhere include:
  - Using municipal car parks at night in Cambridgeshire, concerns about a lack of overnight parking for lorries on the A14, and the problems created in the local area with unregulated lorry parking, has led to local business linking up with a commercial vehicle drivers' association to propose the opening up of a local park & ride car park at night for lorries, in return for payment for a parking ticket;
  - Reciprocal parking, where local distribution and haulage companies with secure overnight parking could accept third-party vehicles, in return for payment;
  - Integrated development, where new distribution parks are permitted or required to increase HGV parking provision, in return for providing a minimum level of secure parking facilities for third-party vehicles, in return for payment.
- 3.4.2 Further discussion is recommended with key stakeholders to determine the scale of the lorry parking shortfall within the Thames Gateway FQP area and identify possible solutions which could be applied at Borough and/or pan-London levels.

# 4 Demand for additional distribution facilities

### 4.1 Overview

- 4.1.1 In 2007 the GLA produced a report on Demand and Supply of Land for Logistics in London, which noted the following key points (our highlighting):
  - The logistics sector manages the delivery of.... goods and services and is an increasingly important element of London's economy. Warehousing and transport are two key elements of logistics operations and the future location of warehousing in and around the capital has implications both for economic growth and sustainable development;
  - The logistics sector already accounts for more employment land than traditional industrial activities and it will increasingly become a more important aspect of industrial land. It is important planning policy recognises the critical role of the logistics sector in securing London's continued and sustainable economic growth
  - Baseline estimate of around 16 million m<sup>2</sup> of warehouse floorspace and around 2,800 hectares of warehousing land in London in 2006. This space is concentrated in the outer London boroughs, with Ealing, Hounslow, **Havering** and **Bexley** having some of the largest concentrations of warehousing;
  - The amount of warehouse floorspace and land has generally been increasing in recent years. This growth is mostly focused in the outer boroughs. In contrast some of the inner boroughs have experienced declines in warehouse space;
  - Six principal geographic areas identified:
    - o Central Service Circle;
    - The Thames Gateway;
    - o The Lea Valley;
    - o Park Royal/A40/M4/A4;
    - o Heathrow and;
    - o Wandle Valley.
  - Heathrow and Park Royal identified as the areas with strongest demand for warehousing but growing demand and increases in land values and rents in other areas including the **Thames Gateway** and the Lea Valley;
  - With the exception of the Central Service Circle the industrial property market areas are not restricted to London's administrative boundary and extend into the wider city-region;
  - The Draft London Freight Plan (2006) anticipates that the demand for goods and services in London will rise by 12% to 15% between 2006 and 2026;

Anticipated demand for an extra 461 hectares of land for warehousing in London between 2006 and 2026. Growth will be concentrated in the North East, South East (152 Ha) and West London sub-regions. Looking at London concentrically, most of the inner London boroughs are expected to experience decline or low rates of growth, while the outer London boroughs account for the majority of growth in warehousing land demand. A relatively modest amount of demand is anticipated to be displaced to sites outside London as it is expected that not all London's market areas will be able to absorb local demand.

#### 4.2 Development issues and opportunities

- 4.2.1 Whilst the GLA report indicates that growth in distribution space within the Thames Gateway area is likely to be concentrated south of the River Thames, this will place further pressure on infrastructure, given there are constraints on the A2 corridor, the North Kent rail corridor and the relative lack of wharves on the south bank.
- 4.2.2 A further issue may be constraints on the availability of land, as the recent decision to grant planning permission for the Howbury Park scheme on Green Belt land (which at around 64 Ha accounts for half the forecast demand to 2026) may constrain any subsequent proposals for development on other Green Belt land in the vicinity.
- 4.2.3 Solutions may be identified through a combination of co-ordinated planning policy between Boroughs and industry to find, as far as possible, mutually acceptable development locations. In some cases, these locations could create a community of freight-related activities, potentially bringing a mixture of distribution, manufacturing, minerals, waste, interchange and lorry parking activities together.
- 4.2.4 Examples include further development of established industrial and distribution clusters north of the River Thames, in the Barking / Dagenham, or Purfleet / Thurrock areas, which compared to areas south of the River benefit from:
  - More extensive and established port and wharfage facilities;
  - Recent investment in upgrading the A13;
  - Enhancing the London Tilbury & Southend rail route to a more generous railway loading gauge (the maximum height and/or width or rail vehicles and their loads); and
  - Completion of the Channel Tunnel Rail Link (High Speed 1) which creates an unique rail freight route to mainland Europe, designed to continental loading gauge.

#### 4.3 Recommendations

4.3.1 Further discussion is recommended with key stakeholders to discuss how the forecast demand for distribution space can be accommodated within the Thames Gateway FQP area, alongside other freight-related activities such as interchanges and lorry parking.

# **5** Conclusions and recommendations

#### 5.1 Conclusions

- 5.1.1 The background context to this report is one of forecast growth in the Thames Gateway, in terms of population, development, economic activity and, unchecked, potentially crippling traffic congestion and associated socio-environmental impacts.
- 5.1.2 If the Thames Gateway is to be both a high-growth and low-carbon economy, then in terms of making the distribution component of the economy as sustainable as possible, measures must be put in place to encourage and ultimately secure greater modal shift away from road transport.
- 5.1.3 There is scope to make more use of the River Thames and its tributaries, together with the parallel network of rail routes on either bank of the River. To achieve this will require the safeguarding and expansion of the currently dwindling number of possible locations for interchanges and distribution facilities. Innovative solutions may be required, such as self-discharging barges and trains, and using barges or trains as mobile storage and distribution centres, in order to bring significant quantities of goods into the local area whilst circumventing the lack of land and the high land values for the land that is available.
- 5.1.4 Yet even with best endeavours, the majority of freight will continue to move to, from, within and through the Thames Gateway by road haulage, a sector where foreign drivers and vehicles do, and will increasingly be present. In order to prevent further escalation of the problems caused by uncontrolled lorry parking in unsuitable areas, greater provision of quality, secure lorry parks will be required within the Thames Gateway as well as in surrounding areas, a challenge given the lack of suitable sites and the marginal economics of lorry parking as a standalone commercial activity.

#### 5.2 Recommendations

- 5.2.1 The provision of these key components of distribution infrastructure, whether in warehousing, interchanges or lorry parks, raises common themes that would benefit from a co-ordinated response by Boroughs and industry, as a suitable topic for the FQP to discuss. Our initial recommendations for the forward work programme for the FQP during 2008/9 and beyond are as follows:
  - Within the context of the London Plan, the London Freight Plan and the London Rail Freight Strategy, ensure that relevant Borough officers and local business are aware of the GLA / TfL policies and supporting guidance related to wharves and rail freight interchanges;
  - Engage with operators and users of the River and rail networks to promote the services and interchange facilities to local business within the Thames Gateway and through national trade associations;
  - Monitor progress with modal shift initiatives within the FQP area, both by the FQP and third parties, to consider the implications for provision of interchange facilities and how the process might be improved through policy (see below) and other interventions (eg European and/or national government grant support);
  - Discuss how the common issues related to provision of distribution floorspace, interchanges and lorry parking might be addressed through greater co-ordination of policy and engagement with industry.

# Appendices

- List of safeguarded wharves in Thames Gateway FQP area
- Draft TfL Guidelines to London Boroughs, sites with potential for rail freight development
- Combined list of existing river and rail interchanges

## List of safeguarded wharves in Thames Gateway FQP area

Borough	Wharf	Cargo	2005 status
Barking & Dagenham	Debden Wharf	Permission granted for waste	Non-operational
Barking & Dagenham	DePass Wharf	To recommence river services	Non-operational
Barking & Dagenham	Docklands Wharf	Metal recycling	Operational
Barking & Dagenham	Ford Dagenham Terminal	Unitised cargoes, vehicles	Operational
Barking & Dagenham	Hanson Aggregates	Aggregates	Operational
Barking & Dagenham	Kierbeck & Steel Wharves	Steel	Operational
Barking & Dagenham	Pinnacle Terminal (TDG Pinnacle)	Various liquid bulks	Operational
Barking & Dagenham	Pinns Wharf	General cargo, Metal recycling	Operational
Barking & Dagenham	Rippleway Wharf	Timber	Operational
Barking & Dagenham	RMC Roadstone	Aggregates	Operational
Barking & Dagenham	Van Dalen (Hunts Wharf)	Metal recycling	Operational
Barking & Dagenham	Victoria Stone Wharf	Aggregates by road	Non-operational
Barking & Dagenham	Welbeck Wharf	Steel	Operational
Barking & Dagenham	White Mountain Roadstone	Aggregates	Operational
Bexley	Albion Wharf	Cereals	Operational
Bexley	Borax Wharf/Manor Wharf	Last handled bulk/general cargo	Non-operational
Bexley	EMR Erith	Metal Recycling	Operational
Bexley	Mulberry Wharf	Aggregates	Operational
Bexley	Pioneer Wharf	Aggregates	Operational
Bexley	RMC Erith	Aggregates	Operational
Bexley	RMC Railway Wharf	Cement	Operational
Bexley	Standard Wharf	To recommence river services	Non-operational
Greenwich	Angerstein Wharf	Aggregates	Operational
Greenwich	Brewery Wharf	Aggregates	Operational
Greenwich	Murphy's Wharf	Aggregates	Operational
Greenwich	Riverside Wharf	Aggregates	Operational
Greenwich	Tunnel Glucose	Cereals by road	Non-operational
Greenwich	Victoria Deep Water Terminal	Aggregates	Operational
Havering	Phoenix Wharf/Frog Island	Permission granted for waste	Non-operational
Havering	Tilda Rice	Cereals	Operational
Lewisham	Convoys Wharf	Last handled forest products	Non-operational
Newham	Manhattan Wharf	Petroleum	Operational
Newham	Mayer Parry Wharf (EMR Canning Town)	Metal recycling by road	Non-operational
Newham	Peruvian Wharf	Last handled aggregates	Non-operational
Newham	Priors Wharf	S106 provision	Non-operational
Newham	Sunshine Wharf	Inks	Operational
Newham	Thames Refinery/Cairn Mills	Sugar	Operational
Newham	Thames Wharf	Metal Recycling	Operational
Tower Hamlets	Northumberland Wharf	Waste	Operational
Tower Hamlets	Orchard Wharf	Last handled aggregates	Non-operational

## Draft TfL Guidelines to London Boroughs, sites with potential for rail freight development (2007)

Borough	Site	Assessment (TfL colour-coding)
Barking & Dagenham	Dagenham (Ford & Hanson sites)	Significant potential for freight terminal intensification/co- location subject to addressing major planning, regeneration and line capacity issues
Barking & Dagenham	Dagenham (Keuhne & Nagel / ACR site)	Potential subject to addressing rail connection and significant planning, regeneration and line capacity issues.
Barking & Dagenham	Barking (Ripple Lane Yard / Box Lane sites)	Significant potential subject to addressing significant planning, regeneration and line capacity issues. Proposals advancing for remodelling of area to accommodate freight and passenger services. Scenarios to be fed into LDF review / UDC framework. Issues of scale, scope and impact remain to be addressed.
Bexley	Slade Green (carriage sidings)	Limited potential. Access issues, TOC role, environmental issues and consideration of relationship with Howbury Park proposals.
Bexley	Slade Green (depot)	Limited potential: existing TOC role, Crossrail safeguarding, adjacent to Howbury Park proposals and greenbelt
Greenwich	Angerstein Wharf	Potential to build on existing operation
Greenwich	Plumstead Carriage Sidings, Goods Yard and S&T Depot	Limited potential: blighted by Crossrail
Havering	Gidea Park Carriage Sidings	Limited potential: likely use for Crossrail
Lewisham	Bricklayers Arms Down Sidings and New Cross Gate Strategic Freight Site	Potential limited by East London Line Extension safeguarding.
Lewisham	Grove Park Carriage Shed, Down Carriage Sidings & BRBR Hither Green	Limited potential: existing TOC use and consideration of local amenity issues
Lewisham	Grove Park Up Carriage Sidings (St Mildreds)	Limited potential: existing TOC use and consideration of local amenity issues
Lewisham	Hither Green Freight, CE Plant Depot and TMD	Limited potential: access issues and TOC operation on site
Newham	East Ham Depot	Limited potential: existing TOC use and amenity impact considerations
Redbridge/Newham	Aldersbrook Carriage Sidings and Ilford Training School	Limited potential: Crossrail proposals, existing TOC use and consideration of local amenity issues
Tower Hamlets	Bow Depot, Waste Transfer and Aggregates	No potential until post-Olympics. Subsequent potential remains to be determined

Combined list of existing river and rail interchanges

do tra	City City	Oncontrarie) / Oumorie)	Modes	s (Active	e / Disuse	(p	la in commodition	Last known / estimated
			Road	Rail	River	Air		throughput pa (tonnes)
Barking & Dagenham	Alexander Wharf	ELG Haniel Metals Ltd	A			0)	Scrap metal	
Barking & Dagenham	Arcelor Wharf	Arcelor SSC Barking	A		A	0,	steel coils / flat rolled	
Barking & Dagenham	Barking	EWS / Howard Tenens	Þ	A		~	Vewsprint	50,000
Barking & Dagenham	Barking	Axa / Russell Group	۲			~	Vone at present	
Barking & Dagenham	Bowen Wharf	N/A	A			~	Vone at present	
Barking & Dagenham	Dagenham Dock	Freightliner / Shanks	A	A			Vaste	100,000
Barking & Dagenham	Dagenham Dock	ACR	۷			~	Vone at present	
Barking & Dagenham	Debden Wharf	JD Demolition	A		A	0	Construction and demolition materials	N/A
Barking & Dagenham	DePass Wharf	Barking Stone	۲		∢	*	Aggregates	
Barking & Dagenham	Dockland Construction Wharf		۷			~	Vone at present	
Barking & Dagenham	Dockland Wharf	Docklands Wharf	۲		A	~	Metal recyling and steel	61,000
Barking & Dagenham	F McNeil & Co	F McNeil & Co	۲			~	Vone at present	
Barking & Dagenham	Ford Dagenham Terminal	Ford Motor Company	۲	∢	∢	~	Motor vehicles and components	1,322,000
Barking & Dagenham	Hanson Aggregates (No 4 Jetty)	Hanson Aggregates	۲	A	A	4	Aggregate imports by sea and rail, slag by sea	1,157,000
Barking & Dagenham	Kierbeck & Steel Wharves	Kierbeck Ltd	۲		A	L	Reinforcing steel	79,000
Barking & Dagenham	Maple Wharf	C Blumson Ltd	۲			-	limber	
Barking & Dagenham	New Free Trade Wharf		۲			~	Vone at present	
Barking & Dagenham	No.1 Western Extension	Ringway Roadstone	۲		A	*	Aggregates, sait, coal	
Barking & Dagenham	Pinnacle Terminal (Thunderer Jetty)	Pinnacle Storage	A		A	L	Petrochemicals and edible oils	202,000
Barking & Dagenham	Pinns Wharf	Fast Shipping Ltd	A		A	0)	Scrap metal and general cargo	163,000
Barking & Dagenham	Rippleway Wharf	Montague L. Meyer Ltd	A		A	-	limber products and petroleum products	63,000
Barking & Dagenham	RMC Dagenham Wharf	Cemex	A		A	4	Agregates	348,000
Barking & Dagenham	Rugby Cement Wharf	Cemex				~	Vone at present	
Barking & Dagenham	Van Dalen (Hunt's Wharf)	Van Dalen UK	A		A	2	Metal recyling and dry bulk cargoes	111,000
Barking & Dagenham	Victoria Stone Wharf	Cemex	A			~	Marine aggregates (currently delivered by road)	460,000
Barking & Dagenham	Welbeck Wharf	Welbeck Steel Service Centre Ltd	A		A		steel products	169,000
Barking & Dagenham	White Mountain Jetty	Whitemountain Roadstone Ltd	∢		∢	0	Drushed rock	180,000

Site Operator(s) / Owner(s) Road Rail River Disused Ma	Modes (Active / Disused)       Road     River     Main	Modes (Active / Disused) 0ad Rail River Air	tive / Disused) River Air	used) Air	Ň	ain commodities
Wharf Archer Daniels Midland Erith A A	ther Daniels Midland Erith A A	A	A			Dilseed & vegetable oils
Bay Costain A A	stain A A	A	A			Acorings for marine plant
ere Power Station Isis Reach Distribution Park A D D	: Reach Distribution Park A D D	D		2	~	vone at present
Wharf / Manor Wharf D D N	RL A D	D	Q	Z	Z	one at present
Gypsum Wharf Cemex A D N	mex A D N	A D	Ň	ž	ž	one at present
Wharf A D NG	A A	A D	Ŭ	Ž	ž	one at present
less Sewage Treatment Plant D Wa	A	A D Wa	D	Wa	Ma	ste
rith European Metal Recycling A A Sor	opean Metal Recycling A A Scr	A A Scr	A	Scr	Scr	ap metal
ry Wharf Lafarge Aggregates Ltd & Tarmac A A Marir Quarry Products	arge Aggregates Ltd & Tarmac A A Marir arry Products	A Marir	A Marir	Marir	Marir	le aggregates and crushed rock
r Wharf A A Marine Aggregates A A Marine	ted Marine Aggregates A A Marine	A Marine	A Marine	Marine	Marine	aggregates
Jods Erith A A Edible c	a Foods Ltd A A Edible c	A Edible o	A Edible o	Edible o	Edible o	oils
rith Cemex A A Crushe	mex A A Crushe	A A Crushe	ACrushe	Crushe	Crushe	d rock
aliway Wharf A A Aggreg	mex Aggreg	A Aggreg	A Aggreg	Aggreg	Aggreg	ates and cement
ird Wharf Aggregate Industries A D Aggree	gregate Industries A D Aggrei	A D Aggrei	D Aggre	Aggrei	Aggrei	gates
Yard A D None at	A D None at	A D None at	D None at	None at	None at	present
Dartford A Road vel	A A Road vel	A Road vel	A Road vel	Road vel	Road vel	nicles, containers
vns Wharf A Bgregates A A Marine	arge Aggregates A A Marine .	A A Marine	A Marine	Marine	Marine	aggregates
ook Power Station RWE npower A A Fuel oil,	E npower A A Fuel oil,	A A Fuel oil,	A Fuel oil,	Fuel oil,	Fuel oil,	gas oil and demineralised water
tein Wharf Aggregate Industries A A A Aggregate	mex / Aggregate Industries A A A Aggregate	A A A A Aggregate	A Aggregate	Aggregate	Aggregate	imports by sea and rail
harf A D Previously	A D Previously	A D Previously	D Previously	Previously -	Previously 1	used for recycling
y Wharf Cerrex A A Aggregate	mex A Aggregate	A A Aggregate	A Aggregate	Aggregate	Aggregate	S
Vharf Blackwall Aggregates A A Marine a	ckwall Aggregates A A Marine a	A A Marine a	A Marine a	Marine a	Marine a	ggregates
n / Charlton / Conys / Lombard Wharves A Boatyard	A A Boatyard	A Boatyard	A Boatyard	Boatyard	Boatyard	facilities
Wharf Morden College D D Previous)	rden College D D Previously	D D Previously	D Previously	Previously	Previously	/ used for aggregates traffic
Wharf Morden College D D Previously	rden College D D Previously	D D Previously	D	Previously	Previously	/ used for construction traffic
/s Wharf United Marine Aggregates Ltd and A A Aggregates Dav Aggregates	tied Marine Aggregates Ltd and A A Aggregates v Aggregates v Aggregates v Aggregates v Aggregates v Aggregates	A A A A A Aggrega	A Aggrega	Aggrega recvcled	Aggrega recvcled	te imports & exports by sea and rail, also glass
de Wharf Tarmac A A Marine a	mac A A Marine a	A Marine a	A Marine a	Marine a	Marine a	ggregates
Avenue Trading Estate N/A A	A D N/A	A D N/A	D	N/A	N/A	
Glucose Wharf Tate & Lyle A D Previously	e & Lyle A D Previously	A D Previously	D Previously	Previously	Previously	used for cereals
t Deep Water Terminal Hanson Aggregates A A Aggrega	nson Aggregates A A Aggrega	A Aggrega	A Aggrega	Aggrega	Aggrega	tes, Type 1 and Bottom Ash

Borouch	Ciro	Omerator(s) / Owner(s)	Mode	es (Activ	e / Disuse	<del>,</del>	tain commoditios	Last known / estimated
-	016		Road	Rail	River	Air		throughput pa (tonnes)
Havering	Murex Site		A		Ω	2	ione at present	
Havering	Phoenix Wharf / Frog Island	East London Waste (Shanks)	A		Ω	LLL.	reviously used for aggregates, proposed for waste	386,000
Havering	Tilda Rice	Tilda Ltd	A		A	0	ereals	21,000
Lewisham	Convoys Wharf	News International			Ω	L	reviously used for newsprint	100,000
Newham	Bow Depot	EWS	A	A	A	0)	and from Dagenham	225,000
Newham	London City Airport	London City Airport	A			A	assenger luggage	
Newham	Manhattan Wharf	Atlantis Oil and Chemical Co, Ltd	A		A	LL.	etroleum products	5,000
Newham	Mayer Parry Wharf	European Metal Recycling	A		A	0)	crap metal	4,000
Newham	Minoco Wharf	Minoco Wharf Partnership			Ω	<u> </u>	reviously used for petroleum products	44,500
Newham	Peruvian Wharf				Ω	L	reviously used for aggregates	932,000
Newham	Priors Wharf	Harbour Land Developments			Ω	LL.	reviously used for aggregates	80,000
Newham	Sunshine Wharf	Sun Chemicals Inks (UK) Ltd	A		A	LL.	etrochemicals	15,000
Newham	Tay Wharf	Bishopsgate Iron & Steel	A		A	0)	crap metal	
Newham	Thames Refinery / Cairn Mills	Tate & Lyle	۶		A	LL.	aw sugar and edible oils	1,280,000
Newham	Thames Wharf	European Metal Recycling	۶		A	0)	crap metal	75,000
Newham	Venesta Wharf	Kierbeck Ltd	A		Ω	0)	teel reinforcement	
Newham	Wick Lane	Aggregate Industries	A	A		4	ggregates from Midlands	375,000
Newham	Wick Lane	EWS / Plasmor	A	A		0	concrete blocks	130,000
Thurrock	CdMR Purfleet	CdMR Purfleet	∢	A	A	2	lotor vehicles, containers	3,960,000
Thurrock	Civil & Marine Jetty (Lower & Upper)	Civil & Marine Ltd, Purfleet Adorecates Ltd	A		A	20	larine aggregates, granulated slag and cement inker	976,000
Thurrock	Gibbs Wharf	Aggregate Industries (UK) Ltd	۷		٩	٩	ggregate, coal and other minerals	4,000
Thurrock	Grays Terminal	Nustar Energy	A		A	LL.	etroleum products	723,000
Thurrock	Jurgens Jetty (Van den Berghs Jetty)	Pura Foods Ltd	A	Ω	٩	ш	dible oils	289,000
Thurrock	Lafarge Jetty	Lafarge Aggregates	۲	٨	٩	2	larine aggregates	
Thurrock	Port of Tilbury	Various	۲	٨	٩	>	arious	8,400,000
Thurrock	Purfleet Fuels Terminal	Esso Petroleum Co. Ltd	۲		٩	LL.	etroleum products	511,000
Thurrock	Thurrock Marine Jetty	Lafarge Cement UK	۲		٩	ш	ulk cement and bulk powders	260,000
Thurrock	Vopak Terminal London	Vopak Terminal London B.V. Ltd	۲	۵	٩	<u> </u>	etrochemicals, edible oils and liquid fertilisers	2,480,000
Thurrock	West Thurrock Jetty	Industrial Chemicals Group Ltd	A		A	ш	ulk chemical powders	41,000

Borroth	40	Onorator(c) (Oumor(c)	Modes	(Active /	Disused	2	a in a commodition	Last known / estimated
	olic		Road	lail R	iver	Pir		throughput pa (tonnes)
Tower Hamlets	Northumberland Wharf		A		A	\$	aste	100,000
Tower Hamlets	Orchard Wharf				Ω	Ē	eviously used for aggregates	473,000
Tower Hamlets	West India Dock		A		A	0	onstruction materials	5,000