Wigan Rail Freight Study

Final Report

Prepared for:

Transport for Greater Manchester &
Wigan Council

by

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CONTENTS

1. INTRODUCTION

Wigan Council (alongside Transport for Greater Manchester – TfGM) commissioned MDS Transmodal in December 2011 to undertake a study into rail freight within the Wigan Council area. The main objective of the study was to identify existing use of rail freight, assess realistic future prospects and determine what kind of facilities would need to be developed. The study will inform the development of a wider transport strategy for Wigan Council.

This technical report document provides a summary of the study's main findings. It broadly covers the following:

- Background information and data concerning the rail freight sector nationally;
- An assessment of cargo currently lifted in the North West and Wigan area;
- An inventory of existing non-bulk rail terminal facilities in the North West and planned terminal developments;
- The economics of rail freight;
- Realistic future prospects and opportunities for rail in the Wigan area, including the identification of large freight traffic generators in the Wigan area i.e. organisations which potentially have sufficient traffic, either individually or combined, to generate full-length rail freight services; and
- Overall conclusions and recommended next steps.

It has been necessary in some circumstances to aggregate data and redact references to individual companies to protect commercial confidentiality.

1.1 Background

The rail freight industry in Great Britain is an open, competitive, private sector market. Rail freight operators compete for traffic both with each other and with other modes of transport, principally the road haulage sector. This 'on rail' competition developed through the Government's policy (driven by various EU Railway directives) of separating the provision of train services from the ownership and operation of the track network. With respect to freight, a policy of open access to the track infrastructure was promoted, with oversight by a strong independent regulator. In addition to the former state owned operators (which were sold to the private sector), a number of new providers subsequently entered the market. More recently, the Government has sought to fund investment in track infrastructure upgrades to improve freight train capability. Alongside, a number of rail-served logistics parks have also been built over the past 15 years by commercial property developers.

The combination of open competition together with significant investment in the network infrastructure and modern terminals has resulted in a growing rail freight sector, both in terms of the volume of cargo handled and its market share. The main players in the market are described below.

Network Rail currently owns all the tracks, signals, stations and connections to the mainlines from private sidings. Network Rail is responsible for the safe day-to-day operation of the network (e.g. operation of signals and turnouts) together with the on-going maintenance, renewal and enhancement of the infrastructure. Network Rail is responsible for devising the 'Working Timetable' (WTT) – the provision of sufficient 'train paths' for passenger and freight train services.

Network Rail is a '*company limited by guarantee*', essentially a private sector company but without any shareholders. Network Rail should, in theory, cover its operating and maintenance costs by charging the passenger and freight train operators *'track access charges'* in return for access to the railway network. However, in practice the Government currently funds a significant part of its maintenance/renewal budget together with contributing to the funding of network enhancements.

In addition to the Freight Operating Companies (FOCs) created on privatisation, a number of new freight operators have been granted operating licences and have entered the market. Currently, there are now 5 competing FOCs in Great Britain, namely:

- Freightliner (owned by Arcapita, a Bahrain investment fund)
- DB Schenker (formerly EWS but now part of state owned German operator Deutsche Bahn);
- Direct Rail Services (DRS, owned by the Nuclear Decommissioning Authority);
- GB Rail Freight (GBRf, owned by Eurotunnel Group); and
- Colas Rail (owned by construction group Colas).

Both DB Schenker and GBRf also hold operating licences in a number of other European countries, thereby permitting through operations via the Channel Tunnel.

Network Rail is a monopoly provider, and as a result is subject to independent regulation by the *Office of Rail Regulation (ORR)*. The ORR's responsibilities can be divided into five areas, namely:

- Limiting the level of track access charges which Network Rail can impose on train operators;
- Ensuring that all rail operators (passenger and freight) have access to track infrastructure on equal and non-discriminatory terms;
- Ensuring that train operators do not act in an anti-competitive manner;
- Awarding operating licences to passenger and freight train operators; and
- Setting and monitoring compliance with safety standards.

The level and type of *track access charges* which Network Rail can charge operators for access to the national infrastructure are 'fixed' for five year periods by the ORR (known as 'Control Periods'). In terms of freight, the current control period specifies that track access charges paid by freight operators must be calculated on a 'long run marginal cost' basis i.e.

only those costs incurred by Network Rail which are directly related to freight train operations. In most cases, freight track access charges reflect the 'wear and tear' imposed on the network by freight trains additional to that generated by passenger train services. As a general 'rule of thumb' the heavier the freight train the higher the levels of track access charges but with lower rates for wagons fitted with modern 'track friendly' bogies (empty wagons also pay lower rates).

Rail freight services and operations can essentially be divided into two types, namely:

1. Conventional Services. Conventional services provide for shipments from one private siding/rail connected facility to another without any use of road transport (i.e. between rail-served terminal infrastructure owned/operated by the shipper and receivers respectively). They are normally associated with bulk and semi-bulk commodities e.g. petro-chemical, coal, aggregates and steel. However, palletised cargo can be carried between rail connected warehouses in 'box wagons'.

Conventional services have two main disadvantages. Firstly, they are operationally inflexible as they require dedicated rail connected facilities at both shipper and receiver premises. Secondly, wagons used in conventional rail services are generally specially designed for a particular commodity e.g. petro-chemical tankers, coal hoppers, steel flats etc. Consequently operators cannot seek backloads and the wagons have to be repositioned empty (wagon utilisation is therefore very poor). The shipper therefore has to pay for a round trip, even though the return leg of the journey is empty.

2. Intermodal Services. An intermodal unit is some form of unit load 'box', such as ISO maritime containers or swap bodies, within which goods can be secured for transport. The design of the unit is such that it can be moved by rail and other modes of transport e.g. road transport, shipping. An intermodal rail service is therefore the transport of unit loads by rail, but where the initial collection from the shipper and final delivery to the receiver can be undertaken by other modes of transport e.g. road, shipping i.e. long trunk haul is undertaken by rail. Transfer from to/from rail is undertaken at an intermodal terminal located close to the shipper/receiver. Intermodal terminals are generally owned/operated either by the FOC or an independent third party operator i.e. not the shipper/receiver or FOC.

Special rail wagons, known as intermodal platform wagons, are used to transport the unit loads. These consist of a flat 'deck', normally positioned over two sets of bogies. Units can be lifted between trains, storage and road vehicles by gantry type cranes or by using reach stacker type equipment.

The disadvantages of conventional rail services are overcome with intermodal rail freight. It allows non-rail-connected shippers to utilise rail freight as a transport mode; initial collection and/or final delivery can be undertaken by road transport. Also, as intermodal units are designed for general cargo, the transport operator normally has the ability to re-position the empty intermodal unit after delivery and seek a return load. Consequently the shipper only has to pay 'one-way' and utilisation is significantly better than conventional rail freight.

FOCs essentially generate revenue by charging shippers for hauling rakes of wagons between terminals. Contractually, train services offered by the five operators generally fall into one of two categories, namely:

1. Contract trains. This is where a shipper contracts full-length trains from a freight train operator for a particular flow of goods or for multiple flows. Consequently, the commercial risk falls with the shipper to fill the train on each occasion, as FOCs will normally charge a fixed rate per train/trip to the shipper regardless of how much cargo the train moves on each trip. Contracts to provide trains are normally over a number of years.

2. Mixed User Trains. These are scheduled train services (run to a fixed timetable) on which shippers can purchase individual 'slots' or 'wagons'. Consequently, the commercial risk falls with the train operator to fill the train on each occasion.

Most conventional rail services are operated on a contract basis. Intermodal train operations conveying maritime containers between deep-sea container ports and inland terminals are a mixture of contract and mixed user (where various shipping lines purchase slots on individual trains). Domestic intermodal trains are operated on a contract basis, generally a retailer or 3PL contracting trains between particular rail-served warehousing developments or intermodal terminals.

While the rail freight industry in Great Britain is a private sector market and the FOCs generally have to operate without subsidies, a number of Government funding initiatives support the rail freight sector. These include:

- The Mode Shift Revenue Support (MSRS) grants. These are grants payable to shippers on a per unit basis for moving goods by rail that would otherwise go by road. They are targeted at short-medium distance flows where road haulage is likely to offer a more cost competitive solution. The grant is justified on the basis that environmental benefits are generated by moving the goods by rail rather than by road. The Freight Facilities Grant scheme, which contributed to the cost of new terminals and equipment, is currently suspended; and
- Direct grants to Network Rail for infrastructure enhancements e.g. £200 million was provided to Network Rail during the current control period to develop the Strategic Freight Network and grants from the Transport Innovation Fund (TIF) to finance loading gauge upgrades.

Rail terminals handling bulk cargoes are dedicated to the particular commodities being handled, and they are usually owned and operated by the respective shippers and receivers e.g. facilities handling coal at a port and power station. Most of the intermodal terminals which existed at railway privatisation i.e. originally developed by British Rail, were subsequently inherited by Freightliner and DB Schenker. Most of these terminals are still operated by these FOCs handling cargo on their trains and other FOC's trains, albeit located on land held on long leases from Network Rail.

A number of intermodal terminals have been built over the last 15 years by commercial property developers, most of them alongside an associated development of large scale distribution warehousing. These include:

- Daventry International Rail Freight Terminal (DIRFT – adjacent to M1 Junction 18);
- Hams Hall (near Coleshill, Warwickshire);
- Birch Coppice (near Tamworth);
- Mersey Multi-Modal Gateway (Widnes);
- Mossend Eurocentral (east of Glasgow conurbation);
- Wakefield; and
- East Midlands Distribution Centre (Castle Donnington).

In these cases, the property developer usually leases the terminal to third party organisations who operate them, in some cases a FOC or a specialist logistics company.

A number of warehousing and associated intermodal terminal developments are currently in the planning pipeline nationally. These include:

- Port Salford (Peel Holdings);
- SIFE (Slough, Goodman Logistics);
- Radlett (Hertfordshire, HelioSlough);
- Corby (ProLogis);
- DIRFT Phase 3 (ProLogis); and
- Rossington (Doncaster, HelioSlough).

In economics, freight transport can be considered as a 'secondary' economic activity, as cargo is generally moved as consequence of the demand-supply relationships which exist between manufacturers, retailers and consumers. Essentially, the shippers' primary economic activities are producing and selling goods, with the need to transport goods around the country (and increasingly across the globe) being a consequence of these primary economic activities e.g. Heinz manufacture baked beans, which are then transported to a Tesco distribution centre as a result of demand from the general public for baked beans. The demand for baked beans ultimately 'causes' the transport activity. It could be considered a non-core activity which has to be undertaken for an organisation to operate effectively but which imposes costs on the main (core) business of a company, in much the same way that most commercial organisations need to purchase electricity in order to function.

Consequently, shippers of cargo in a rational competitive market (in the above example Heinz and Tesco) will seek the lowest cost supply chain solutions. This does not necessarily mean that the lowest cost transport option will always be selected. For example, rail freight may offer a £20 per unit saving over road haulage for a particular flow. However, road transport's 'built-in' flexibility (e.g. the ability to move goods anytime, at short notice and

potentially with quicker transit times) may mean that other savings can be achieved elsewhere in the supply chain when using road haulage compared with rail freight e.g. the ability to hold lower levels of inventory. Some shippers will also pay a premium for other service qualities e.g. quicker transit times, particularly for higher value cargoes. On that basis, a lower cost point-to-point offer by a rail freight operator may not necessarily 'win the business' (and therefore generate modal shift) when all factors in the supply chain are considered. However, it is an important factor when shippers consider modal choice. As rail freight improves its competitive offer, particularly on cost given factors such as rising fuel costs and likely future productivity improvements, but also with respect to service quality and reliability resulting from terminal and network investment, it will gain traffics from the road haulage market.

1.2 Recent Trends

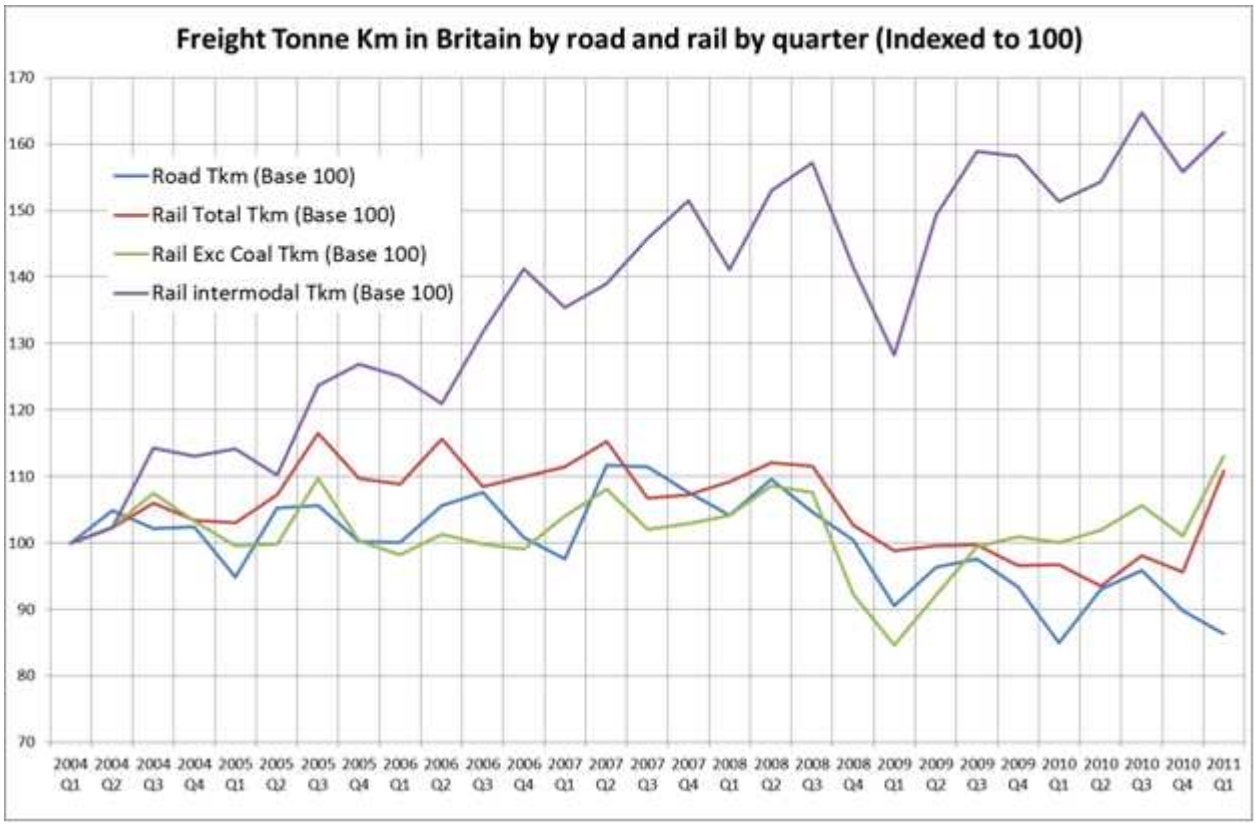
This study has been conducted against a background of recent growth in non-bulk rail freight volumes nationally, both in terms of cargo handled and market share. Also, the most recent national forecasts for rail freight suggest continuing growth, being driven by increasing fuel prices, further productivity gains by the sector and an increase in the amount of warehouse floor space which is located on rail-served sites.

Overall, the total inland freight market (when measured as tonne-km) fell by 10% over the period Q1 2006 to Q1 2011. Over the same period, road freight (measured as vehicle-km) fell by 13%, while maritime container traffic initially fell but subsequently grew so that by 2011 volumes handled at ports were broadly the same as in 2006. However, over the same period:

- Rail tonne-km grew by 2%;
- Rail tonne-km, excluding coal, grew by 13%; and
- Intermodal rail tonne-km grew by 29%.

Since 2004, intermodal rail freight (as measured in tonne-km) has grown by 61% (7% per annum) against a decline in road freight of some 14%. Rail freight has therefore grown by some 3.5% per year faster than road freight over this period. This is illustrated in the graph below.

Graph 1: Freight Tonne-km in Great Britain 2004-1011



This recent performance nationally can essentially be contributed to a combination of the following factor:

- The competitive nature of the rail freight sector (as described), which has resulted in a more cost competitive and higher quality 'offer' to the logistics market;
- Rising road transport costs (principally driven by higher diesel costs);
- Revenue support grants targeted at short-medium distance flows;
- The current track access charging (regime long run marginal costs); and
- Investment in the rail network and the development of large scale warehousing on rail-served sites.

MDS Transmodal recently undertook national rail freight forecasts to 2030 for the Rail Freight Group (RFG) and the Rail Freight Operators Association (RFOA). These forecasts have subsequently informed the Initial Industry Plan (published September 2011) and the DfT's Strategic Rail Freight Interchange Policy Guidance document (published December 2011). The forecasts assume that over a 20 year period an additional 7.2 million square metres of warehousing will be developed on rail-linked sites. This corresponds to approximately 35% of the warehousing likely to be built in Great Britain over that period.

The table below summarises the forecasts assuming current levels of freight train productivity i.e. no increase in trailing length and 5 day working.

Table 1: Summary of Rail Freight Forecasts to 2030 – existing productivity

	2010	2020	2030	Growth (% per annum)
Rail tonnes (million)	105	142	163	2.2%
Rail tonne-km (billion)	21	33	40	3.3%
Intermodal tonnes (million)	16	45	73	7.6%
Train km per weekday (000s)	134	223	296	4.0%

Source: MDS Transmodal GB Freight Model

The forecasts suggest that, without further productivity improvements train-km will grow by 120%.

The table below summarises the forecasts assuming improved levels of freight train productivity i.e. 20% increase in trailing length and 6 day working.

Table 2: Summary of Rail Forecasts to 2030 – improved productivity

	2010	2020	2030	Growth (% per annum)
Rail tonnes (million)	105	155	178	2.6%
Rail tonne-km (billion)	21	34	43	3.6%
Intermodal tonnes (million)	16	54	86	8.7%
Train km per weekday (000s)	134	213	259	3.3%

Source: MDS Transmodal GB Freight Model

Therefore, the forecasts suggest that improved levels of productivity will:

- Increase total rail tonne-km from 40 billion to 43 billion by 2030 (a further 7.5%);
- Intermodal tonnes lifted from 73 million to 86 million by 2030 (a further 17.8%); and
- Reduces total train kilometres from 296,000 per weekday to 259,000 per weekday (a reduction of 12.5%).

In effect, the productivity improvements have the effect of spreading traffic across a fewer number of weekday trains but also reducing the net cost of rail haulage, thereby expanding its market share.

2. FREIGHT ACTIVITY IN NORTH WEST AND WIGAN

This section provides a summary analysis of current rail and road freight activity in the North West of England and the greater Wigan area. The rail freight data is sourced from *Network Rail* billing data for the 12 month period to the end of September 2011. Network Rail billing data, which forms one of the input data sources of the GB Freight Model, records all rail freight activity on the national railway network on a siding to siding basis by commodity and tonnes lifted (amongst other categories). While providing an accurate record of current rail freight activity, individual shipper/FOC flows can be identified from the raw data It has therefore been necessary to aggregate some of the data and redact other figures in order that individual flows can remain confidential.

The current national *Working Timetable* has also been interrogated to record freight train activity passing through Wigan.

The road freight data is derived from the *Continuing Survey of Road Goods Transport (CSRGT)*. This is a sample survey of road freight operators, on-going throughout the year, conducted by the Department for Transport[1]. The outputs estimate, amongst other categories, tonnes lifted by origin/destination, vehicle type and commodity. Similar to the rail data, the CSRGT forms one of the input data sources of the GB Freight Model. Data from a number of recent years has been combined (to remove exceptional flows and the ability to identify individual shipper movements) to provide an estimate of current road freight activity.

2.1 Rail Freight Activity in North West England

There is currently no freight lifted directly to/from rail on a regular basis in the Wigan Council area. There are some ad-hoc flows of engineering and infrastructure supplies lifted by rail to/from the sidings immediately to the south of Wigan North Western station e.g. ballast, rails etc..

The table below summarises current rail freight activity in the North West of England by commodity and origin/destination region.

[1] A random sample of vehicle operators are selected on a weekly basis and asked to record vehicle activity for a week. The information gathered then 'grossed up' to provide an estimate of national road freight activity.

Table 3: Current Rail Freight Activity North West England

Commodity/Type	Millions Tonnes Collected North West		Millions Tonnes Delivered North West
Coal	2.9	Auto	0.1
Construction	0.3	Chem	0.2
Maritime Containers	2.5	Coal	3.7
Own haul*	0.4	Construction	2.0
Waste	0.4	Maritime Containers	2.4
Others	0.1	Metals	0.2
		Own haul*	0.8
Total	**6.6**		
		Total	**9.4**

Destination Region	Millions Tonnes Collected North West	Origin Region	Millions Tonnes Delivered North West
East England	1.4	Channel Tunnel	0.1
East Midlands	0.2	East England	1.4
Greater London	0.1	East Midlands	2.1
North West	3.1	Greater London	0.1
Scotland	0.3	North West	3.1
South East	1.0	Scotland	1.0
West Midlands	0.1	South East	0.8
Yorks Humber	0.4	South West	0.2
		Wales	0.1
Total	**6.6**	West Midlands	0.1
		Yorks Humber	0.4
		Total	**9.4**

*Source: MDS Transmodal based on Network Rail data. * Network Rail engineering and infrastructure materials.*

Around 6.6 million tonnes of cargo per annum are currently collected in the North West region by rail freight, of which around 3.1 million tonnes is subsequently delivered in the North West of England. The main commodities are coal (power station coal collected from the Port of Liverpool), maritime containers (for delivery to deep-sea container ports in the south and east of England) and waste (Greater Manchester waste for land-fill disposal).

Around 9.4 million tonnes of per annum are currently delivered in the North West region by rail freight. The main commodities are coal (power station coal), maritime containers (from the deep-sea container ports in the south and east of England) and construction materials (minerals from the Peak District).

The table below summarises current non-bulk rail freight volumes (deep-sea maritime containers and other intermodal traffics) handled at the various intermodal terminals located within Trafford Park and at Widnes, Garston and the Port of Liverpool (see Section 3). It shows that just under 5 million tonnes per annum of intermodal traffic are currently handled

via the terminals. The origins and destinations are the deep-sea container ports in south and east England, Scotland and the Channel Tunnel.

Table 4: Current Intermodal Rail Freight Activity at Manchester, Merseyside and Cheshire Intermodal Terminals

	Millions Tonnes		
	Collected NW	Delivered NW	Total
Trafford Park terminals	1.4	1.3	2.6
Merseyside/Cheshire terminals	1.2	1.0	2.3
Total	**2.6**	**2.3**	**4.9**

Source: MDS Transmodal based on Network Rail data

As noted above, no freight is currently lifted directly to/from rail in Wigan. However, a significant proportion of the above traffic is initially collected from shippers or ultimately delivered to receivers in the Wigan area. The CSRGT was therefore interrogated, and data relating to the movement of maritime containers by road between the Wigan area and the above terminals was extracted i.e. containers arriving from or departing by road to Trafford, Halton (3MG) or Liverpool (Garston) local authority areas (the CSRGT records origin/destination data down to local authority level). In this case, the 'Wigan area' has been defined as the Wigan Council area together with the neighbouring local authorities of St Helens, Knowsley, West Lancashire, Chorley, Bolton, Salford, Trafford and Warrington. The results are shown in the table below.

Table 5: Estimate of Intermodal Rail Traffic to/from Wigan Area

	Millions Tonnes		
	Origin 'Wigan Area'	Destination 'Wigan Area'	Total
Total	**0.7**	**0.9**	**1.6**

Source: MDS Transmodal estimate based on CSRGT

On that basis, we estimate that around 1.6 million tonnes of intermodal rail traffic is currently handled in the Wigan area via the Trafford Park and Cheshire/Merseyside intermodal terminals.

2.2 Road Freight Activity in the North West of England

The tables below show the amount of cargo currently lifted by road freight transport in the North West of England and the Wigan area.

Table 6: Current Road Freight Activity North West England by Origin and Destination Region

Origin/Destination Region	Millions Tonnes lifted Delivered	Collected
North West	153.0	153.0
Yorkshire & the Humber	18.2	13.2
East Midlands	13.7	8.4
West Midlands	11.7	12.2
Wales	7.8	7.4
Scotland	5.7	7.7
North East	4.3	4.9
Eastern	3.8	3.8
South East	2.9	3.1
South West	2.4	2.8
Greater London	0.8	1.3
Total	**224.1**	**217.7**
Of which:		
Warrington	12.0	8.7
Wigan	9.3	9.2
St. Helens	8.8	8.0
Trafford	6.8	8.8
Salford	6.1	7.2
Bolton	5.8	4.8
West Lancashire	5.5	5.3
Knowsley	3.4	3.6
Chorley	2.8	1.8
Total 'Wigan Area'	***60.6***	***57.3***

Source: MDS Transmodal based on CSRGT

Around 224 million tonnes of cargo per annum are currently delivered in the North West region of England by road transport. Our of this total, around 153 million tonnes originated from the North West (68% of all road freight delivered). Just under 218 million tonnes of cargo per annum are currently collected in the North West region of England by road transport. Outside of the North West, the major origins and destinations of road freight are Yorkshire/Humberside and the Midlands (East and West). Around 61 million tonnes of cargo per annum are currently delivered in the Wigan area by road transport, and just over 57 million tonnes per annum are collected by road transport.

It should be noted that for the more distant regions i.e. over distances which rail freight is likely to offer the most cost competitive option (see Section 4), the amount of cargo currently moved by road transport forms a small proportion of overall road transport volumes. For example, only just under 4.5 million tonnes of cargo per annum are currently despatched to London and the South East by road from the North West. Similarly, only around 5.5 million tonnes of cargo are delivered in the North West from Scotland. A similar pattern emerges for the Wigan area (see Tables 11 and 12 in Appendix detailing road freight volumes by Region), with around 1 million tonnes of cargo moving each way between the South East

and London and Wigan. This would suggest that future prospects for 'modal shift' opportunities to rail from road freight may be limited, and that cargo suited to rail is already being moved by rail e.g. maritime containers from deep-sea ports.

However (as will be demonstrated in Section 4) as more large scale cargo generators locate to rail-served sites, 'modal shift' opportunities to rail will increase over the shorter-medium distance flows. Being located on a rail-served site reduces significantly the distances over which rail becomes competitive, and flows between rail-served sites (given the ability to fill a full length train) should be cost competitive by rail over fairly short distances. Therefore, as a 'network' of rail-served NDCs in the Midlands (e.g. DIRFT) and RDCs in the North West (e.g. 3MG) are developed, so will the opportunities to connect these sites economically by rail.

Tables 13 and 14 in the Appendix detail the volume of cargo moved to/from the North West of England by origin/destination region and commodity type. The tables below show the breakdown of cargo to/from the Wigan area by commodity.

Table 7: Current Road Freight Activity in Wigan Area by Commodity

Destination Wigan Area	Millions Tonnes Lifted	**Origin Wigan Area**	Millions Tonnes Lifted
Miscellaneous articles	17.0	Miscellaneous articles	15.4
Other foodstuffs	8.2	Other foodstuffs	9.9
Other crude minerals	6.7	Miscellaneous manufactures	5.1
Miscellaneous manufactures	4.8	Other crude minerals	3.9
Sand, gravel and clay	3.1	Other building materials	3.3
Chemicals	3.1	Chemicals	2.8
Other building materials	3.0	Machinery and transport equipment	2.8
Beverages	2.9	Beverages	2.3
Machinery and transport equipment	2.6	Sand, gravel and clay	2.0
Agricultural Products	1.6	Petrol and petroleum products	1.4
Iron and steel products	1.3	Agricultural Products	1.3
Wood, Timber and cork	1.3	Cements	1.3
Cements	1.3	Iron and steel products	1.3
Petrol and petroleum products	1.1	Wood, Timber and cork	1.1
Crude materials	0.9	Ores	1.0
Ores	0.7	Crude materials	1.0
Other metal products	0.6	Other metal products	0.8
Fertiliser	0.3	Coal and Coke	0.3
Coal and Coke	0.2	Fertiliser	0.3
Total	**60.6**	**Total**	**57.3**

3. INVENTORY OF INTERMODAL TERMINALS IN NORTH WEST

3.1 Existing Intermodal (Non-bulk) Terminals

The following tables provides a summary of existing intermodal (non-bulk) terminal facilities in the North West of England.

Terminal Name	**Freightliner Trafford Park**
Location	John Gilbert Way, Trafford Park Industrial Estate, Manchester
Terminal Operator	Freightliner
Rail lines serving	Located on the north side of the Manchester-Liverpool 'Cheshire Lines' route (immediately to the west of Old Trafford Football Ground). This line subsequently connects with the West Coast Main Line via Piccadilly station.
Loading Gauge	W10
Terminal Facilities	7 x 350m sidings for handling trains, plus headshunt and loco release line 2 x Container gantry cranes Hard-standing for storage area approx 2.5ha
Distance from Wigan	42km
Warehousing on site	No. Stand-alone terminal but located within the wider Trafford Park Industrial Estate, and therefore close to a number of large factory and distribution centre facilities.
Comments	One of the original Freightliner terminals developed in the mid 1960s by British Railways. Capacity to serve the terminal is currently limited, as access from the West Coast Main Line is via the intensively used platforms 13 and 14 at Piccadilly station and the two track section of line to Oxford Road station. This is recognised as a major congestion point on the North West Network. The Northern Hub proposal should generate additional capacity along this corridor.

Terminal Name	Trafford Park Euroterminal
Location	Westinghouse Road Trafford Park Industrial Estate Manchester
Terminal Operator	DB Schenker
Rail lines serving	Located on the north side of the Manchester-Liverpool 'Cheshire Lines' route (immediately to the west of Old Trafford Football Ground). This line subsequently connects with the West Coast Main Line via Piccadilly station.
Loading Gauge	W10
Terminal Facilities	Reception sidings 5 x 400m sidings for handling trains 2 x Container gantry cranes Hard-standing for storage area approx 2.5ha
Distance from Wigan	42km
Warehousing on site	No. Stand-alone terminal but located within the wider Trafford Park Industrial Estate, and therefore close to a number of large factory and distribution centre facilities.
Comments	Developed by Railfreight Distribution division of British Railways in 1990s to serve Channel Tunnel Traffic. Inherited by EWS on privatisation, subsequently DB Schenker. Capacity to serve the terminal is currently limited, as access from the West Coast Main Line is via the intensively used platforms 13 and 14 at Piccadilly station and the two track section of line to Oxford Road station. This is recognised as a major congestion point on the North West Network. The Northern Hub proposal should generate additional capacity along this corridor.

Terminal Name	Trafford Park Barton Dock Road
Location	Barton Dock Road, Trafford Park Industrial Estate Manchester
Terminal Operator	Roadways Container Logistics
Rail lines serving	Served by a single track branch line from the Trafford Park Euroterminal reception sidings (see above).
Loading Gauge	W10
Terminal Facilities	2 x 320m sidings for handling trains 2 x Container gantry cranes Hard-standing for storage area approx 2.5ha
Distance from Wigan	42km
Warehousing on site	Yes – 2 x small covered units for unpacking containers Terminal also located within the wider Trafford Park Industrial Estate, and close to a number of large factory and distribution centre facilities.
Comments	Originally developed by Containerbase (P&O) to handle their own container trains.

	Capacity to serve the terminal is currently limited, as access from the West Coast Main Line is via the intensively used platforms 13 and 14 at Piccadilly station and the two track section of line to Oxford Road station. This is recognised as a major congestion point on the North West Network. The Northern Hub proposal should generate additional capacity along this corridor. Located on land leased from Peel Holdings adjacent to the Trafford Centre. Potentially, the operation will be relocated to Port Salford (see below), thereby allowing the land to form part of an expanded Trafford Centre (possibility that the branch line could be converted in part to a Metrolink line to Trafford Centre).

Terminal Name	**Mersey Multi Modal Gateway (3MG)**
Location	Desoto Road Widnes (Adjacent to A562)
Terminal Operator	Stobart Group
Rail lines serving	West Coast Main Line – Liverpool branch
Loading Gauge	W10
Terminal Facilities	5 x 300m sidings for handling trains 4 x container gantry cranes (2 serving sidings, 2 serving storage area) Hard-standing for storage area approx 2.5ha
Distance from Wigan	37km
Warehousing on site	Yes. Major Tesco RDC now located on site, with potential that the development will be able to accommodate c330,000sq m of high-bay floor space once fully built-out.
Comments	Originally developed as a stand-alone terminal by the O'Connor group, but now integrated into a wider rail-linked logistics park. The development of the logistics park has been co-ordinated with Halton Borough Council, effectively as a regeneration scheme for derelict and contaminated land. Part of the site was originally 'Greenbelt', but was released for rail-served development following inspection of the Council's UDP (now LDF). Originally three land-owners, the majority of the site has since been purchased by Stobart Group as a major investment in rail terminal facilities. Land owned by Halton BC, which also forms part of the site, has since been sold to ProLogis for warehouse development. Trains currently reverse in Ditton junction sidings before/after handling at terminal. New longer reception sidings planned as part of wider development. The Tesco NDC is serving the North West market i.e. RDCs, and subsequent occupations are likely to serve a similar hinterland.

Terminal Name	Freightliner Gartson
Location	Dock Road Garston Liverpool (Adjacent to A561 in Garston)
Terminal Operator	Freightliner
Rail lines serving	Served by a short spur from the West Coast Main Line – Liverpool branch
Loading Gauge	W10
Terminal Facilities	6 x 330m m sidings for handling trains 2 x container gantry cranes Hard-standing for storage area approx 2.5ha
Distance from Wigan	52km
Warehousing on site	No
Comments	One of the original Freightliner terminals developed in the mid 1960s by British Railways. A small terminal with no expansion potential, located between River Mersey (Garston Docks) and A561.

Terminal Name	Seaforth Container Terminal
Location	Seaforth Container Terminal, Seaforth Docks, Port of Liverpool (adjacent to A565)
Terminal Operator	Port of Liverpool
Rail lines serving	Served by the Liverpool Dock branch line, which connects with the Liverpool-Manchester (Chat Moss) railway line at Olive Mount Junction (Broad Green).
Loading Gauge	W10
Terminal Facilities	2 x 400m m sidings for handling trains, plus headshunt and locomotive release line Reach stackers and straddle carriers
Distance from Wigan	29km
Warehousing on site	Yes. Small scale units within the Port of Liverpool complex
Comments	Terminal integrated into the Seaforth Container Terminal, but available for use non-port related trains.

Terminal Name	Knowsley Rail Terminal
Location	Woodward Road, Knowsley Industrial Park, Knowsley
Terminal Operator	Potter Group
Rail lines serving	Wigan Wallgate to Kirkby
Loading Gauge	W7
Terminal Facilities	Rail connected warehouse providing secure, under cover rail offloading and full mechanical handling and storage facilities for cross docking, transhipment and intermodal operations.
Distance from Wigan (	25km
Warehousing on site	Yes. 15,500sq m common user warehouse with IT systems for management receipt, stock control, order processing and distribution
Comments	A small independently owned terminal, which potentially can provide shippers and receivers in the Wigan area with a suitable intermodal terminal. The Network Rail route directory map shows the terminal has having W9 loading gauge. However, Network Rail now concede that this is an error and that the gauge is actually W7 (thereby requiring the use of low deck-height wagons for intermodal traffics). The main restricting overline structure is bridge carrying the West Coast Main Line over the Wigan Wallgate-Kirby line.

3.2 Planned Intermodal (Non-bulk) Terminals

The following tables provides a summary of the planned new intermodal (non-bulk) terminal facilities in the North West of England.

Terminal Name	**Port Salford**
Location	Liverpool Road, Barton, Salford (south side of A57)
Developer	Peel Holdings
Rail lines serving	Site would be served by a new spur line from the Liverpool-Manchester (Chat Moss) line, immediately to the east of where is crosses over the M62.
Loading Gauge	W10 (currently W9 but will be enhanced to W10 as a result of the electrification of the Liverpool-Manchester line, due for completion in 2016)
Terminal Facilities	750m length reception sidings 4 x 400m sidings for handling trains, plus headshunt and locomotive release line 2 x container gantry cranes and ship-shore gantry crane (serving Ship Canal berth) Container ship berth on Manchester Ship Canal
Distance from Wigan	38km
Warehousing on site	Yes Planning application for 155,000sq m of high-bay floor space, with expansion potential up to c400,000sq m
Comments	Planning consent granted for the tri-modal facility (road, rail and ship canal) along with 155,000sq m of modern high-bay floor space. Peel Holdings are currently understood to be finalising funding arrangements for the scheme and engineers have been commissioned to provide detailed construction designs. Adjacent sites could potentially be incorporated into the development to provide large scheme up to 400,000sq m. Rail access to the site would be via the West Coast Main Line at Warrington and then the Chat Moss route. This route avoids the intensively used platforms 13 and 14 at Piccadilly station and the two track section of line to Oxford Road station (it is recognised that some trains could relocate to Port Salford, thereby releasing paths through Piccadilly for extra passenger services). Given its location, the warehousing is likely to be occupied by distributors serving the North West or north of England market only i.e. RDCs

Terminal Name	Parkside
Location	Parkside Road Newton-le-Willows St Helens
Developer	ProLogis
Rail lines serving	Direct from the Liverpool-Manchester (Chat Moss) line to the east of Newton-le-Willows station
Loading Gauge	W10 (currently W9 but will be enhanced to W10 as a result of the electrification of the Liverpool-Manchester line, due for completion in 2016)
Terminal Facilities	Intermodal terminal and reception sidings
Distance from Wigan	18km
Warehousing on site	Yes A planning application (subsequently withdrawn, see below) envisaged c700,000 sq m of high-bay floor space on both the east and west side of the M6
Comments	Intermodal terminal and warehousing development planned for the former Parkside colliery site together with adjacent land on the west side of the M6 and land to the east of the M6. Originally promoted by developer Astral, ProLogis inherited the scheme when it purchased Astral. A planning application was submitted in 2006, although this was subsequently withdrawn in 2010 citing difficult market conditions. St Helens Council are currently developing a new Local Development Framework (LDF) Core Strategy. Despite the withdrawn application, St Helens Council support the broad principal of the scheme, with proposed Policy CAS3.2 providing Council support in principal for an Intermodal terminal and warehousing development at the site subject to conditions (including a phased west-to-east approach to site development). The proposed Core Strategy has recently been examined (March and April 2012). ProLogis provided broad support for the policy in submissions to the Core Strategy consultation and examination hearing. It is understood that ProLogis remain committed to the site and intend that development should commence within 5-10 years subject to planning consent being granted. Given the size of the proposed development, any subsequent planning application would now be considered by the Major Infrastructure Planning Unit. While the proposed scheme meets most of the key criteria for such developments in terms of size and proposed facilities, there are likely to be railway operational issues which suggest ultimate development of the scheme might be difficult to achieve. The Chat Moss route is being electrified and passenger train services on the line are to increase substantially following upgrade (mixture of additional and re-routed services). While an hourly off-peak freight path in both directions is still likely to be available on the Chat Moss route, most of these paths could be taken up by Port Salford assuming it is developed ahead of Parkside. It may therefore be difficult to demonstrate that sufficient freight path capacity exists to serve the development, which will be required given that the site is currently Greenbelt.

	Given its location, the warehousing would most likely be occupied by distributors serving the North West or north of England market only i.e. RDCs

Terminal Name	**Port of Liverpool**
Location	Seaforth Docks, Port of Liverpool (adjacent to A565)
Developer	Peel Ports
Rail lines serving	Served by the Liverpool Dock branch line, which connects with the Liverpool-Manchester (Chat Moss) railway line at Olive Mount Junction (Broad Green).
Loading Gauge	W10
Terminal Facilities	Intermodal terminal and reception sidings
Distance from Wigan	29km
Warehousing on site	Yes
Comments	The Mersey Ports Masterplan envisages new riverside container ship berths together with a development of large port-centric warehousing within the port estate. An upgraded rail terminal would be included within the development. At present, the maritime access to the container terminal is via Seaforth locks, restricting vessels to the so called 'Panamax' size i.e. maximum size vessel that can pass through the Panama Canal. However, vessels deployed on Far East-Europe trade routes and some trans-Atlantic services are now much larger, so called 'Post Panamax' vessels. The Port of Liverpool is therefore planning a new riverside berth i.e. directly on the River Mersey, thereby avoiding the locks, capable of accommodating Post Panamax vessels. Alongside the riverside berth, around 250,000sq m of new high-bay warehousing within the port estate is also planned. Given that vessels calling at the new riverside berth would only be making one port call in Great Britain (i.e. Liverpool), the planned warehousing is likely to be sourcing cargo directly from the container berth and subsequently serving a national market for onward distribution i.e. port centric NDCs, removing the need to haul goods to inland to Midlands located NDCs. This contrasts with Port Salford and Parkside (if developed), which are likely occupied by distributors serving the North West or north of England market only i.e. RDCs. The Mersey Ports Masterplan has recently undertaken a consultation exercise. The Mersey Ports Masterplan also identifies a number of locations along the Ship Canal (south Wirral/Ellesmere Port and Warrington) which might accommodate further rail-linked warehousing developments.

3.3 Conclusions: Facilities Required by the Market

A visit to the Heinz manufacturing and NDC facility at Wigan concluded that it would not be feasible to construct a rail terminal facility at the site in a cost effective manner (research undertaken during the study indicated interest in using rail from Heinz and their appointed logistics contractor Wincanton). The Wigan Wallgate-Southport railway line passes alongside the site, but in a cutting some 3-4m below the level of the main goods handling and HGV loading yard. It is possible that some form of engineering solution could be developed, but it would be expensive and therefore not viable from a financial perspective.

From the above analysis, the nearest current existing railway terminal facility to the Wigan area is the *Potter Group* facility in Knowsley. Discussions undertaken with the Potter Group during the study indicate that they are keen to expand rail services from the site, particularly intermodal trains which could convey containers to/from the Wigan area. As discussed in Section 4 below, an efficient Wigan-Knowsley shuttle operation could transfer containers for a cost of £40-£50 per box (Table 16 in the Appendix). For the foreseeable future, this is the obvious terminal to support potential dedicated rail freight services directly serving shippers/receivers in the Wigan area. This would be in addition to continuing to support and facilitate efficient road transfers of intermodal units to/from the existing Trafford Park and Merseyside terminals and the planned terminals at Port Salford, Port of Liverpool and Parkside.

The successful rail freight terminal schemes which have been developed over the past 15 years have been those which combined intermodal facilities on the same site as large scale high-bay warehousing. These include:

- DIRFT;
- Hams Hall;
- Birch Coppice;
- Mersey Multi-Modal Gateway (3MG); and
- East Midlands Distribution Centre (currently under construction).

Proposed developments in the planning pipeline or currently being considered by the planning system are of a similar nature. These include:

- Port Salford (as described above and being promoted by Peel Holdings);
- Port of Liverpool (as described above and being promoted by Peel Holdings)
- SIFE (Slough, Goodman Logistics);
- Radlett (Hertfordshire, HelioSlough); and
- Corby (ProLogis);

This situation recognises that most goods transported in an intermodal unit originate from or are destined for a warehouse (distribution centre). As will be demonstrated in Section 4 below, locating at least one end of a trip on a rail-served site has the effect of reducing the distance over which rail becomes cost competitive. A relatively expensive road haul is then

removed from the supply chain and replaced by a much cheaper internal shunting movement (from intermodal terminal to warehouse on 'internal' roads using yard tractor equipment running on rebated diesel). Recent evidence clearly suggests that major distributors of cargo (retailers and their suppliers) are now seeking new facilities on rail-served sites similar to those being promoted above. For example, Tesco's recent additions to their distribution network have been on rail-served sites, at DIRFT and 3MG. In could also be argued that commercial developers would not be spending large sums of money on taking schemes through the planning system given a lack demand from the market.

From the above, it is possible to conclude that:

- 3MG is currently in the process of being 'built out';
- Any development at the Port of Liverpool is likely to be port centric in nature and serving predominantly a national market (and potentially Ireland); and
- Port Salford is the only other rail-served logistics park development with consent granted in the North West, with issues concerning the deliverability of a scheme at Parkside from a rail connectivity perspective.

On that basis and over the longer term, Wigan Council may wish to identify a suitable site in the Wigan area which could accommodate the 'next phase' of rail terminal development in the North West (i.e. once 3MG and Port Salford are fully built-out). There is a long term demand from major distributors of cargo for distribution facilities on rail-served sites, and there will be a need to identify further sites to accommodate new-buildings once these sites are fully developed. This would have the following benefits:

- Existing distributors of cargo in the Wigan area could re-locate to a rail-served site, either when their existing facilities become life expired or to accommodate traffic growth;
- Provide closer intermodal facilities to existing shippers of cargo in the Wigan area who are unable to relocate e.g. manufacturers such as Heinz; and
- Existing distributors of cargo in the wider North West region to could re-locate to a rail-served site, either when their existing facilities become life expired or to accommodate traffic growth. Port Salford, 3MG and Port of Liverpool are fully built-out (particularly as Parkside is unlikely to proceed).

In addition 3MG was, in part, promoted by Halton Council in that it regenerated a contaminated site and supported new employment opportunities in an area of above-average unemployment. A rail terminal development in the Wigan area could play a similar role.

Suitable sites are recognised to be those which meet the following criteria:

- Market demand for the proposed facilities which cannot be met through existing capacity;
- Good quality access to the highway network;

- High quality rail access;
- At least 40 hectares of development land available together with a suitable configuration;
- Appropriately located relative to the markets to be served;
- Good access to labour; and
- Minimal environmental impact and located away from incompatible neighbours, thereby allowing 24 hour operations and no restrictions on vehicle movements.

These criteria are essentially derived from planning policy with respect to the location, form and structure of strategic distribution sites together with the qualities and characteristics that an individual site must possess in order to render them commercially attractive to the logistics market. They have also been tested at a number of planning inquiries for similar rail-linked schemes.

The analysis and conclusions emerging from this document clearly indicate market demand for rail-served logistics facilities generally and in the North West/Wigan area in particular.

Road transport will remain the dominant mode at a rail-linked distribution park, as for most goods flows it will remain the most practical and cost effective form of transport. This means that the majority of cargo arriving and departing distribution centres located on rail connected logistics sites will be by road transport. In addition to this, the intermodal terminal facility will also be serving manufacturers and distribution activities located off site by road. Given this position, good quality access to the highway network is essential, which is generally defined as being located within 5km of a junction with a motorway or other strategic/multi-lane route (and the road from the site to the junction is appropriate for handling large volumes of HGVs).

Various factors associated with the quality of rail connectivity will determine whether a site is an appropriate location for rail-linked logistics facilities. Being located adjacent to a railway line is only part of the equation, with high quality rail access being generally defined as a site where the adjoining railway line offers:

- Good operational flexibility – full length train services can access the site directly from all directions without the need to reverse or use a circuitous route;
- Has a loading gauge at least W8, and preferably W9 or above. This enables the full range if intermodal unit sizes to be conveyed on standard deck height wagons; and
- Has available freight capacity – generally regarded as being able to handle at least one freight train per direction in each off-peak hour.

The size of a site and its configuration is an important factor for two main reasons:

- It contributes towards the viability of rail freight services to and from that site. Combining large distributors at the same site has the effect of generating a ‘critical mass’ of cargo, above which it is possible to assemble full length train services

to/from key origins and destinations (a pre-requisite for cost competitive rail services, as described on Section 4 below); and
- Sites need to be big enough to accommodate the large scale distribution centres that are be required by the market, together with a number of other support activities.

It is generally considered that a commercially attractive rail-linked site is one which is large enough and flexible in its configuration to provide the following:

- At least 40ha of developable land, thereby allowing the development of at least 150,000-200,000 square metres of warehouse floor space, and individual plots which permit very large units;
- An intermodal rail terminal with hard-standing storage for container units; and
- Internal rail reception sidings capable of receiving trains up to 750m trailing length.

It is important that rail-linked distribution parks are well located relative to their intended markets. In addition to this being a policy requirement, being well located relative to markets is vital to support the efficient and sustainable operation of inbound and outbound transport services. Rail-linked distribution parks intending to serve regional markets (e.g. the North West) will need to be located close to the main conurbations of Britain, in order to minimise re-distribution transport costs. This is where the main end-delivery points are located (normally retail outlets), and being in such a location allows the efficient operation of HGV equipment.

Distribution centre activity is relatively labour intensive. Despite the automation of many logistics functions, most distribution warehouses still rely on manual labour for many of their activities. There are also the usual administrative jobs associated with large labour intensive industries e.g. Payroll, Human Resources. Drivers for the delivery HGVs based at the warehouse will also be required. Intermodal terminals require gantry crane operators, yard tractor drivers, HGV drivers and security staff. Consequently a commercially attractive logistics site will be one which is located with a good quality labour supply within a reasonable 'travel to work' distance.

Distribution activity needs to operate 24 hours per day, seven days per week. However there are noise and visual impacts associated with distribution. Where possible, deliveries by HGV are often undertaken during the night when traffic congestion is minimal. Distribution centres therefore need to be accessed during night time hours. Rail freight facilities, parking areas for road trailers or areas where containers are stacked need to be illuminated during the hours of darkness for both practical and safety reasons. Large flood lights therefore need to be erected. Many freight trains also run at night when conflicts with passenger services are minimised. Rail freight facilities at a logistics site will therefore need to receive, despatch and handle trains at night time. All of these activities, and others which occur, cause noise and visual pollution. Consequently, an appropriate site is one located away from incompatible neighbours e.g. housing, thereby allowing 24 hour operations and no restrictions on vehicle movements

In summary therefore, a sensible strategy for Wigan Council (and TfGM) would therefore appear to be:

- Continuing to support and facilitate efficient road transfers of intermodal units to/from the existing Trafford Park and Merseyside terminals and the planned terminals at Port Salford and Port of Liverpool;
- Support and facilitate access to the Potter Group terminal at Knowsley for potential dedicated rail freight trains directly serving shippers/receivers in the Wigan area; and
- Longer term, the Council may wish to identify a site meeting the above criteria in the Wigan area which could accommodate a rail terminal development.

4. ECONOMICS OF RAIL FREIGHT

Rail freight operating costs are essentially divided into four categories, namely:

- Locomotive traction costs;
- Wagon leasing costs;
- Track Access Charges payable to Network Rail; and
- Terminal handling costs, principally lifting units to/from trains and shunting to/from any on-site warehousing (for rail linked distribution parks).

These four categories can be reflected in a simple spreadsheet based cost model which can then be used to estimate rates associated with moving intermodal units by rail (and compared with equivalent road haulage rates).

The *locomotive traction* costs are based on a Class 66 locomotive, the locomotive used by most of the freight traction providers in Britain. Traction costs are divided into annual fixed costs and running costs (diesel fuel).

The capital cost of a Class 66 locomotive is approximately £1.55 million. Accounting for interest charges (on capital borrowed), depreciating the asset on a straight line basis over 25 years to a zero residual value, maintenance, train crew costs, insurance and an appropriate return on the investment, annual fixed costs can be equated as £1.98 per operating hour. This assumes that the locomotive will operate on average for 3,000 hours per annum (i.e.12 hours per day, 5 days per week and 50 weeks per year).

Running costs are calculated from the cost of fuel per litre and the average fuel consumption for the locomotive. A Class 66 locomotive fuel consumption rate is approximately 0.24km per litre and diesel fuel for railway traction currently costs around £0.62 per litre. This equates to around £2.58 per km.

The capital cost of a standard *Megafret intermodal platform wagon* is around £80,000. This is a fixed formation pair of wagons used on most domestic and Channel Tunnel intermodal services, and offers a loading space of 2 x 16m platforms for intermodal units. Accounting for interest charges, maintenance and an appropriate return on the investment, annual wagon leasing costs can be equated as approximately £58 per day per wagon.

Access to the national (Network Rail) railway infrastructure is dependent on the payment of *Track Access Charges* to Network Rail. Track access charges themselves are levied on a 1,000 gross tonne kilometre (gtkm) basis (i.e. a train of 1,000 tonnes moving 1km). The actual value per 1,000gtkm will vary as a function of both wagon type and commodity. Different wagons are believed to cause different levels of track damage, as a consequence of both different suspension systems and different absolute axle loadings. The current track charging regime accounts for this and attaches different rates to different wagons, and much lower rates for empty wagons. Different rates also apply for different locomotives. For trains

currently involved in moving intermodal units, the current track access charges for wagons and locomotives are as follows:

- Locomotive (Class 66): £1.4248 per 1,000gtkm; and
- Megafret wagons: £0.6706 per 1,000gtkm.

Terminal charges will vary between different facilities. In broad terms, the terminal operator will charge shippers for lifting intermodal units to/from trains (either directly to an awaiting HGV/shunting semi-trailer or into a storage stack) and for shunting boxes to/from any on-site distribution warehousing, where the terminal is located on the same site. Ports will also generally charge for shunting containers from the quayside storage areas to the on-site intermodal terminal. Charges are broadly £25 per lift at an intermodal terminal and around £20 for an internal site shunt using yard-tractors running on rebated diesel.

Accounting for all the above costs and for average freight train speeds domestically, operating costs equate to around £10 per train km for a domestic intermodal train of 16 Megafret intermodal wagons. Assuming an average load factor of 75% (i.e. 24 units conveyed per train), intermodal train costs are therefore around £0.42 per unit km. In addition to this, terminal lift and shunting charges need to be accounted for. Also, where the ultimate origin or destination is not on the same site as the intermodal terminal, road haulage will be required. This is generally around £120 per trip, even over a short distance trip of 20-30km, once waiting time for loading/unloading the container and re-positioning of the empty unit is accounted for (albeit that lower costs can be achieved when large volumes are moved between a terminal and the same off-site location, thereby allowing an intensive but efficient shuttle operation to be implemented).

Using these costs on a generic basis, broad transport rates for intermodal rail freight can be estimated for varying distances. These are shown in the tables below.

Table 8: Estimated Intermodal Rail Freight Transport Rates

Neither end rail-connected

Trip distance (km)	Train cost per unit	Road hauls	Terminal lifts*	Approx cost per unit
100	£42	£240	£50	£332
200	£83	£240	£50	£373
300	£125	£240	£50	£415
400	£167	£240	£50	£457
500	£208	£240	£50	£498
600	£250	£240	£50	£540

** Assumes lifts direct to/from waiting HGVs, no shunting*

One end rail-connected

Trip distance (km)	Train cost per unit	Road hauls	Terminal lifts and shunts*	Approx cost per unit
100	£42	£120	£70	£232
200	£83	£120	£70	£273
300	£125	£120	£70	£315
400	£167	£120	£70	£357
500	£208	£120	£70	£398
600	£250	£120	£70	£440

Both ends rail-connected

Trip distance (km)	Train cost per unit	Road hauls	Terminal lifts and shunts*	Approx cost per unit
100	£42	£0	£70	£112
200	£83	£0	£70	£153
300	£125	£0	£70	£195
400	£167	£0	£70	£237
500	£208	£0	£70	£278
600	£250	£0	£70	£320

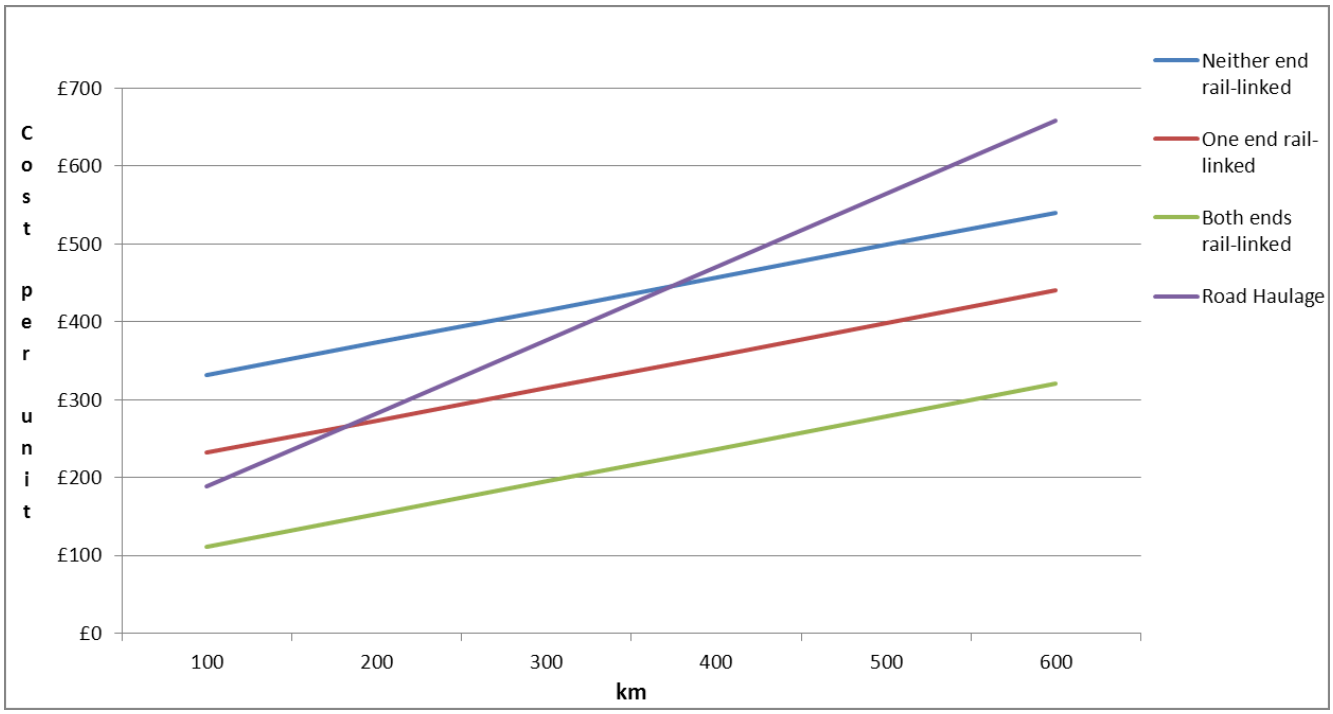
** Assumes lifts and shunting from terminal to on-site warehouse*

These results are perhaps better illustrated by a graph which also shows a comparison with the equivalent estimated road haulage rates for the same trip. This is shown in the graph below. The conclusions which can be drawn from this analysis are as follows, given the ability to fill a full length train in both directions:

- When operating between two rail-served sites (e.g. container port to rail-served distribution centre), rail freight should always offer a cost competitive solution (except for extremely short trips of a few kilometres);
- When one end of the journey is rail-served (e.g. container port to a non rail-served distribution centre, or rail-served NDC to non rail-served RDC), rail freight should offer a cost competitive option over approximately 250km; and
- Where neither end of the journey is rail-served (e.g. NDC to RDC on non rail-served sites), rail freight should offer a cost competitive option over approximately 400km.

Locating at least one end of a trip on a rail-served site has the effect of reducing the distance over which rail becomes cost competitive. This is because a relatively expensive road haul is removed from the supply chain (and replaced by a much cheaper internal shunting movement) at a point where there is naturally some form of break in the flow e.g. discharge of container from vessel, unloading container into NDC.

Graph 2: Estimated Intermodal Rail and Road Haulage Costs Compared



On that basis, for non rail-served shippers or receivers in the Wigan area (served via Potter Group terminal in Knowsley), this implies the following key flows are likely to be more cost competitive by rail (given the ability to fill a full length train in both directions):

- Rail served NDCs in the East and West Midlands;
- Rail served origins and destinations in the south and east of England (NDCs or deep-sea container ports); and
- Rail served origins and destinations in Scotland.

This essentially explains the large volumes of maritime containers currently moved by rail into the North West and Wigan area from deep-sea ports in south and east England.

These costs can also be applied to specific origin-destination flows, with broad transport rates for intermodal rail freight subsequently estimated. In this case, they have been applied to possible cargo origins/destinations which could potentially be served by daily train services to/from the Wigan area (based on the traffic flow data in Section 2 and the indications of a shipper in the Wigan area potentially interested in using rail). Estimated costs per unit have therefore been calculated to/from the Thames (Tilbury), Humber (Hull), Midlands (DIRFT) and Scotland (Mossend) from the Potter Group terminal at Knowsley. These assume an average 75% loadings in both directions (24 units in both directions). The results are presented in Table 15 the Appendix.

The Knowsley to Wigan 'shuttle' (Table 16 in the Appendix) has assumed use of an efficient HGV operation being able to undertake 9 round-trips in a 24 hour period. Given the ability to

fill a full-length train in both directions to an average 75% loading, all these flows by rail should be more cost competitive when compared to road haulage.

5. FUTURE PROSPECTS AND OPPORTUNITIES

The above section concluded that the following key flows are likely to be more cost competitive by rail to and from the Wigan area, given the ability to fill a full length train:

- From rail served NDCs in the East and West Midlands;
- Rail served origins and destinations in the south and east of England (NDCs or deep-sea container ports); and
- Rail served origins and destinations in Scotland.

This essentially explains the large volumes of maritime containers currently moved by rail into the North West and Wigan area from deep-sea ports in south and east England. However, the key to future modal shift opportunities in the Wigan area will be a combination of the following two factors, namely:

- The current volumes and trading patterns of non bulk cargo moved on these routes by road, and whether a sufficient proportion of this traffic can be assembled into full length trains; and
- The willingness of shippers or logistics operators to contribute part train loads and share train capacity (potentially with competitors) in order that full train loads can be generated. This is likely to require a change in shipper or logistics company 'mentality' or operating behaviour from current practice.

The table below, extracted from the data analysed in Section 2, describes current volumes of cargo moved by road between the Wigan area/North West region and the Midlands, South East and East of England.

Table 9: Road Freight Activity Wigan Area and North West to/from Key Regions

	Millions Tonnes			
	Wigan Area		North West	
O/D Region	Collected	Delivered	Collected	Delivered
East Midlands	2.2	3.7	8.4	13.7
West Midlands	3.3	3.1	12.2	11.7
London and South East	1.3	1.0	4.4	3.6
East of England	1.1	1.2	3.8	3.8
Scotland	1.7	1.3	7.7	5.7

Source: CSRGT

As noted earlier, the amount of cargo currently moved by road transport between the Wigan area and those regions where rail is likely to offer a cost competitive solution forms a small proportion of overall road transport volumes. For reference, a single intermodal train of 24 units would convey around 0.7 million tonnes one-way on an annual basis. This would suggest that future prospects for 'modal shift' opportunities to rail from road freight may be

limited, and that cargo suited to rail is already being moved by rail e.g. maritime containers from deep-sea ports (albeit via terminals in Trafford Park and Merseyside).

However, on a North West basis, there are some substantial flows to/from the East and West Midlands. Inward flows from the Midlands to the North West are typically from the NDCs in those regions to RDCs. We can therefore conclude that as a 'network' of rail-served NDCs in the Midlands (e.g. DIRFT) and RDCs in the North West (e.g. 3MG) are developed, so will the opportunities to connect these sites economically by rail. This also suggests further developments of warehousing on rail-served sites in the North West beyond that being developed (3MG) and in the planning pipeline (Port Salford).

The cost modelling described in Section 4 also shows that a full length train loaded to an average of 75% in both directions could offer significant savings compared with a road haulage operation to the Midlands and the Thames and Humber ports. A cargo receiver/distributor in the wider Wigan area is understood to have sufficient inbound volumes from mainland Europe which could potentially fill a train in the northbound direction from the Thames e.g. Tilbury (but not enough for the southbound direction). As noted in Section 3, train services serving Wigan could utilise the Potter Group terminal. Modelled estimates suggest that an efficient Wigan-Knowsley shuttle operation could transfer containers for a cost of £40-£50 per box (Table 16 in the Appendix). The shorter haul when compared with Trafford Park also assists in reducing the greenhouse gas emissions associated with the flow.

We have therefore sought to identify other large distributors or shippers of cargo in the Wigan area who may dispatch significant volumes of cargo to the South East on a daily basis, and therefore may be able to contribute part train loads and share train capacity in order that a full train can be generated in the reverse southbound direction.

MDS Transmodal hold a database of large warehouses (over 9,000sq m or 100,000sq ft) in England and Wales by location and occupier, sourced from records held by the Valuation Office Agency (VOA). This has been interrogated to identify potential large generators of freight in Wigan area. The VOA's online facility has also been further examined to identify large manufacturing sites in the Wigan area. The full list is presented in the Appendix, with the largest facilities by floor space (and therefore the more likely to have volumes heading to the south east) presented in the table below.

Table 10: Potential Large Generators of Freight Wigan Area

Company	Floor Space (sq m)
Warehouses	
J J B Sports plc, Wigan	76,609
Heinz	66,290
GUS, Wigan	55,511
Q V C, Knowsley	51,011
Matalan Distribution Centre, Skelmersdale	43,468
Home Delivery Network	41,301
Comet	40,732
Adidas Distribution Centre	36,636
Argos Direct	31,144
Proctor and Gamble	30,262
TDG/Kelloggs	29,464
Wolseley UK Distribution Centre, Chorley	28,559
Ethel Austin Ltd.	28,245
The Sovereign Distillery, Liverpool	28,112
Asda, Skelmersdale	27,363
SCA Hygiene Products UK Ltd.	21,744
Boots	21,528
Factories/Manufacturers	
Pilkington Works, St Helens	
Heinz	
SCA Hygiene, Skelmersdale	
Sonae, Kirkby	
PPG Fibre Glass, Hindley	
Cargill, Trafford Park	
Kraft Foods, Liverpool	
SCA Packaging, Warrington	
Proctor and Gamble, Trafford Park	
Georgia Pacific, Horwich	
SCA Hygeine Products, Trafford Park	
Unilever Best Foods, Trafford Park	
British Bakeries (Northern) Ltd, Aspul	
Walkers Snack Foods Ltd, Upholland	
St Gobain Industrial Ceramics, Rainford	
Warburtons Ltd, Bolton	

Source: VOA

On the basis that some of the above shippers or logistics operators are able to contribute traffic and share train capacity, we can conclude that there would appear to be 'modal shift' opportunities to rail from road between the Wigan area and the south east. Given the above, this suggests a daily train from the Thames (e.g. Tilbury intermodal terminal) to Knowsley (and return), loaded with inbound cargo for the Wigan based receiver/distributor northbound and cargo from multiple Wigan area shippers on the southbound return trip.

6. SUMMARY, CONCLUSIONS AND NEXT STEPS

6.1 Summary of Findings

Section 1

The rail freight industry in Great Britain is an open, competitive, private sector market. Rail freight operators compete for traffic both with each other and with other modes of transport, principally the road haulage sector. A policy of open access to the railway infrastructure is promoted, with oversight by a strong independent regulator. There are now 5 competing rail freight operating companies in Great Britain.

The study has been conducted against a background of recent growth in non-bulk rail freight volumes nationally, both in terms of cargo handled and market share. Since 2004, intermodal rail freight (as measured in tonne-km) has grown by 61% (7% per annum) against a decline in road freight of some 14%. Rail freight has therefore grown by some 3.5% per year faster than road freight over this period. This performance nationally can essentially be contributed to a combination of the following factors:

- Competition within the rail freight sector;
- Rising road transport costs (principally driven by higher diesel costs);
- Revenue support grants targeted at short-medium distance flows;
- The current track access charging (regime long run marginal costs); and
- Investment in the rail network and the development of large scale warehousing on rail-served sites.

The table below summarises the most recent national rail freight forecasts assuming improved levels of freight train productivity i.e. 20% increase in trailing length and 6 day working.

Table : Summary of Rail Forecasts to 2030

	2010	2020	2030	Growth (% per annum)
Rail tonnes (million)	105	155	178	2.6%
Rail tonne-km (billion)	21	34	43	3.6%
Intermodal tonnes (million)	16	54	86	8.7%
Train km per weekday (000s)	134	213	259	3.3%

Source: MDS Transmodal GB Freight Model

Section 2

There is currently no freight lifted directly to/from rail on a regular basis in the Wigan Council area. Around 6.6 million tonnes of cargo per annum are currently collected in the North West region by rail freight, of which around 3.1 million tonnes is subsequently delivered in the North West of England. Around 9.4 million tonnes of per annum are currently delivered in the North West region by rail freight. The main commodities are coal, maritime containers, waste and construction materials.

Just under 5 million tonnes per annum of intermodal traffic are currently handled via the various intermodal terminals located within Trafford Park and at Widnes, Garston and the Port of Liverpool. The main origins and destinations are the deep-sea container ports in south and east of England. It is estimated that around 1.6 million tonnes of the intermodal rail traffic passing through North West terminals either originates from or is destined for the Wigan area (i.e. with a road haul to/from the Wigan area).

Around 224 million tonnes of cargo per annum are currently delivered in the North West region of England by road transport. Our of this total, around 153 million tonnes originated from the North West (68% of all road freight delivered). Just under 218 million tonnes of cargo per annum are currently collected in the North West region of England by road transport. Outside of the North West, the major origins and destinations of road freight are Yorkshire/Humberside and the Midlands (East and West). Around 61 million tonnes of cargo per annum are currently delivered in the Wigan area by road transport, and just over 57 million tonnes per annum are collected by road transport.

Section 3

Within the North West region, there are currently 6 non-bulk rail freight terminals, located in Trafford Park, Widnes, Garston, Seaforth Container Terminal and Knowsley Industrial Park.

The successful rail freight terminal schemes which have been developed nationally over the past 15 years have been those which combined intermodal facilities on the same site as large scale high-bay warehousing. These include the Mersey Multi-Modal Gateway (3MG) development at Widnes. Nationally, proposed developments in the planning pipeline or currently being considered by the planning system are of a similar nature. In the North West region, schemes are proposed for Port Salford (with planning consent), Parkside and Port of Liverpool. This situation recognises that most goods transported in an intermodal unit originate from or are destined for a warehouse (distribution centre). Recent evidence clearly suggests that major distributors of cargo (retailers and their suppliers) are now seeking new facilities on rail-served sites. For example, Tesco's recent additions to their distribution network have been on rail-served sites, at DIRFT and 3MG.

A visit to the Heinz manufacturing and NDC facility at Wigan concluded that it would not be feasible to construct a rail terminal facility at the site in a cost effective manner (research

undertaken during the study indicated interest in using rail from Heinz and their appointed logistics contractor Wincanton).

The nearest current existing railway terminal facility to the Wigan area is therefore the *Potter Group* facility in Knowsley Industrial Park. Discussions undertaken with the Potter Group during the study indicate that they are keen to expand rail services from the site, particularly intermodal trains which could convey containers to/from the Wigan area. An efficient Wigan-Knowsley shuttle operation could be organised (Table 16 in the Appendix). For the foreseeable future, this is the obvious terminal to support potential dedicated rail freight services directly serving shippers/receivers in the Wigan area. This would be in addition to continuing to support and facilitate efficient road transfers of intermodal units to/from the existing Trafford Park and Merseyside terminals and the planned terminals at Port Salford, Port of Liverpool and Parkside (if developed).

Section 4

Given the ability to fill a full length train in both directions:

- When operating between two rail-served sites, rail freight should always offer a cost competitive solution;
- When one end of the journey is rail-served (e.g. container port to a non rail-served distribution centre, or rail-served NDC to non rail-served RDC), rail freight should offer a cost competitive option over approximately 250km; and
- Where neither end of the journey is rail-served (e.g. NDC to RDC on non rail-served sites), rail freight should offer a cost competitive option over approximately 400km.

Locating at least one end of a trip on a rail-served site has the effect of reducing the distance over which rail becomes cost competitive. This is because a relatively expensive road haul is removed from the supply chain (and replaced by a much cheaper internal shunting movement) at a point where there is naturally some form of break in the flow e.g. discharge of container from vessel, unloading container into NDC.

For non rail-served shippers or receivers in the Wigan area (served via Potter Group terminal in Knowsley), this implies the following key flows are likely to be more cost competitive by rail (given the ability to fill a full length train in both directions):

- Rail served NDCs in the East and West Midlands;
- Rail served origins and destinations in the south and east of England (NDCs or deep-sea container ports); and
- Rail served origins and destinations in Scotland.

This also explains the large volumes of maritime containers currently moved by rail into the North West and Wigan area from deep-sea ports in south and east England.

Section 5

The key to future modal shift opportunities in the Wigan area will be a combination of the following two factors, namely:

- The current volumes and trading patterns of non bulk cargo moved by road on those routes where rail freight can offer a cost competitive alternative (i.e. Midlands, South East and Scotland), and whether a sufficient proportion of this traffic can be assembled into full length trains; and
- The willingness of shippers or logistics operators to contribute part train loads and share train capacity (potentially with competitors) in order that full train loads can be generated. This is likely to require a change in shipper or logistics company 'mentality' or operating behaviour from current practice.

As a 'network' of rail-served NDCs in the Midlands (e.g. DIRFT) and RDCs in the North West (e.g. 3MG) are developed, so will the opportunities to connect these sites economically by rail. This also suggests further developments of warehousing on rail-served sites in the North West beyond that being developed (3MG) and in the planning pipeline (Port Salford).

A cargo receiver/distributor in the wider Wigan area is understood to have sufficient inbound volumes from mainland Europe which could potentially fill a train in the northbound direction from the Thames.

6.2 Key Conclusions

Key Conclusion 1

The amount of cargo currently moved by road transport between the Wigan area and those regions where rail is likely to offer a cost competitive solution currently forms a small proportion of overall road transport volumes. However, on a North West basis, there are some substantial flows to/from the East and West Midlands. Inward flows from the Midlands to the North West are typically from the NDCs in those regions to RDCs. We can therefore conclude that as a 'network' of rail-served NDCs in the Midlands (e.g. DIRFT) and RDCs in the North West (e.g. 3MG) are developed, so will the opportunities to connect these sites economically by rail. This suggests further developments of warehousing on rail-served sites in the North West beyond that being developed (3MG) and in the planning pipeline (Port Salford).

Key Conclusion 2

A cargo receiver/distributor in the wider Wigan area is understood to have sufficient inbound volumes from mainland Europe which could potentially fill a train in the northbound direction from the Thames (but not enough for the southbound direction). As noted in Section 3, train services serving Wigan could utilise the Potter Group terminal. Modelled estimates suggest

that an efficient Wigan-Knowsley shuttle operation could transfer containers for a cost of £40-£50 per box (Table 16 in the Appendix). The shorter haul when compared with Trafford Park also assists in reducing the greenhouse gas emissions associated with the flow.

A number of other large distributors or shippers of cargo in the Wigan area who may dispatch significant volumes of cargo to the South East on a daily basis have been identified, and therefore may be able to contribute part train loads and share train capacity in order that a full train can be generated in the reverse southbound direction.

On the basis that some of the identified shippers or logistics operators are able to contribute traffic and share train capacity, we can conclude that there would appear to be 'modal shift' opportunities to rail from road between the Wigan area and the south east. Given the above, this suggests a daily train from the Thames (e.g. Tilbury intermodal terminal) to Knowsley (and return), loaded with inbound cargo for the Wigan based receiver/distributor northbound and cargo from multiple Wigan area shippers on the southbound return trip.

Key Conclusion 3

In terms of rail terminals, a sensible short-medium term strategy for Wigan Council (and TfGM) would therefore appear to be:

- Continuing to support and facilitate efficient road transfers of intermodal units to/from the existing Trafford Park and Merseyside terminals and the planned terminals at Port Salford and Port of Liverpool; and
- Support and facilitate access to the Potter Group terminal at Knowsley for potential dedicated rail freight trains directly serving shippers/receivers in the Wigan area.

Key Conclusion 4

From the analysis undertaken it is possible to conclude that:

- 3MG is currently in the process of being 'built out';
- Any development at the Port of Liverpool is likely to be port centric in nature and serving predominantly a national market (and potentially Ireland);
- Port Salford is the only other rail-served logistics park development with consent granted in the North West, with issues concerning the deliverability of a scheme at Parkside; and
- Further developments of warehousing on rail-served sites are likely to be required in the North West beyond that being developed (3MG) and in the planning pipeline (Port Salford).

On that basis and over the longer term, Wigan Council may wish to identify a suitable site in the Wigan area which could accommodate the 'next phase' of rail terminal development in the North West. This would have the following benefits:

- Existing distributors of cargo in the Wigan area could re-locate to a rail-served site, either when their existing facilities become life expired or to accommodate traffic growth;
- Provide closer intermodal facilities to existing shippers of cargo in the Wigan area who are unable to relocate e.g. manufacturers such as Heinz; and
- Existing distributors of cargo in the wider North West region to could re-locate to a rail-served site, either when their existing facilities become life expired or to accommodate traffic growth.

In addition 3MG was, in part, promoted by Halton Council in that it regenerated a contaminated site and supported new employment opportunities in an area of above-average unemployment. A rail terminal development in the Wigan area could play a similar role.

Suitable sites are recognised to be those which meet the following criteria:

- Market demand for the proposed facilities which cannot be met through existing capacity;
- Good quality access to the highway network;
- High quality rail access;
- At least 40 hectares of development land available together with a suitable configuration;
- Appropriately located relative to the markets to be served;
- Good access to labour; and
- Minimal environmental impact and located away from incompatible neighbours, thereby allowing 24 hour operations and no restrictions on vehicle movements.

6.3 Next Steps

Short-Medium Term

1. Assist, where feasible, the cargo receiver/distributor in the wider Wigan area interested in using rail (and having sufficient volume to fill a northbound train from the Thames) to make contacts with the identified shippers or logistics operators who may be able to contribute traffic and share train capacity in the southbound direction.

2. Continuing to support and facilitate efficient road transfers of intermodal units to/from the existing Trafford Park and Merseyside terminals and the planned terminals at Port Salford and Port of Liverpool, capitalising on funding opportunities such as the Greater Manchester City Deal.

3. Support and facilitate access to the Potter Group terminal at Knowsley for potential dedicated rail freight trains directly serving shippers/receivers in the Wigan area.

Medium-Long Term

Begin the process of identifying a suitable site in the Wigan area which could accommodate the 'next phase' of rail terminal development in the North West. The site identified would need to meet all the criteria described for a successful rail freight terminal to a high level. The results of this exercise would ultimately feed into a land allocation process and Local Development Framework policies and strategies.

Table 11: Destination Wigan Area – Origin Region

	Millions Tonnes Lifted											
	North West	Yorkshire & the Humber	East Midlands	West Midlands	Wales	Scotland	Eastern	North East	South East	South West	Greater London	**Total**
Warrington	7.9	0.8	0.6	0.6	0.7	0.5	0.3	0.2	0.2	0.1	0.1	12.0
Wigan	6.6	0.6	0.6	0.6	0.2	0.1	0.1	0.1	0.2	0.1	0.0	9.3
St. Helens	5.4	0.8	0.7	0.6	0.3	0.3	0.2	0.1	0.1	0.3	0.0	8.8
Trafford	5.0	0.5	0.5	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.0	6.8
Salford	4.6	0.6	0.3	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	6.1
Bolton	4.5	0.4	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	5.8
West Lancashire	3.9	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	5.5
Knowsley	2.2	0.3	0.1	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	3.4
Chorley	2.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Total	**42.6**	**4.3**	**3.7**	**3.1**	**1.8**	**1.3**	**1.2**	**0.8**	**0.8**	**0.8**	**0.2**	**60.6**

Table 12: Origin Wigan Area – Destination Region

	Millions Tonnes Lifted											
	North West	West Midlands	Yorkshire & the Humber	East Midlands	Scotland	Wales	North East	Eastern	South West	South East	Greater London	**Total**
Wigan	6.5	0.6	0.4	0.4	0.2	0.4	0.1	0.1	0.2	0.1	0.1	9.2
Trafford	6.5	0.4	0.5	0.3	0.1	0.2	0.3	0.2	0.1	0.1	0.0	8.8
Warrington	5.4	0.6	0.5	0.3	0.6	0.3	0.1	0.3	0.2	0.2	0.1	8.7
St. Helens	4.7	0.5	0.8	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	8.0
Salford	6.0	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	7.2
West Lancashire	3.8	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.0	5.3
Bolton	3.7	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	4.8
Knowsley	2.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	3.6
Chorley	1.5	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Total	40.6	3.3	3.3	2.2	1.7	1.7	1.2	1.1	1.0	0.9	0.4	**57.3**

Table 13: Destination North West Region by Origin Region and Commodity

	Millions Tonnes lifted											
Commodity	North West	Yorkshire & the Humber	East Midlands	West Midlands	Wales	Scotland	North East	Eastern	South East	South West	Greater London	**Total**
Miscellaneous articles	39.9	2.6	1.7	2.5	0.8	1.1	0.6	0.8	0.6	0.4	0.2	51.3
Other crude minerals	21.3	1.5	4.4	0.5	2.8	0.1	0.1	0.0	0.0	0.0	0.0	30.7
Other foodstuffs	17.9	2.8	1.8	2.2	0.4	1.0	0.5	0.5	0.4	0.6	0.2	28.2
Miscellaneous manufactures	10.0	2.2	1.2	1.0	0.8	0.5	0.4	0.5	0.4	0.3	0.1	17.5
Other building materials	8.3	0.9	0.9	0.6	0.2	0.2	0.1	0.2	0.1	0.1	0.0	11.8
Chemicals	7.7	1.4	0.5	0.3	0.2	0.1	1.1	0.3	0.2	0.0	0.0	11.8
Sand, gravel and clay	8.0	0.3	0.1	0.5	0.5	0.1	0.2	0.1	0.0	0.0	0.0	9.8
Agricultural Products	5.0	1.0	0.8	0.7	0.3	0.6	0.2	0.4	0.2	0.1	0.1	9.4
Cements	7.3	0.4	0.5	0.2	0.5	0.1	0.1	0.0	0.0	0.0	0.0	9.1
Machinery and transport equipment	4.3	0.7	0.6	0.7	0.2	0.2	0.2	0.5	0.3	0.1	0.1	8.1
Beverages	4.6	0.9	0.4	0.7	0.2	0.4	0.1	0.2	0.2	0.4	0.0	8.0
Petrol and petroleum products	6.8	0.2	0.0	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	7.6
Wood, Timber and cork	2.5	0.6	0.1	0.2	0.2	0.7	0.2	0.1	0.1	0.0	0.0	4.6
Iron and steel products	1.8	1.0	0.2	0.5	0.2	0.1	0.1	0.1	0.1	0.0	0.0	4.2
Ores	2.4	0.8	0.1	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	4.0
Crude materials	2.6	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	3.9
Other metal products	1.3	0.3	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	2.2
Fertiliser	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.1
Coal and Coke	0.3	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.8
Total	**153.0**	**18.2**	**13.7**	**11.7**	**7.8**	**5.7**	**4.3**	**3.8**	**2.9**	**2.4**	**0.8**	**224.1**

Table 14: Origin North West Region by Destination Region and Commodity

Commodity	**Millions Tonnes lifted**											
	North West	Yorkshire & the Humber	West Midlands	East Midlands	Scotland	Wales	North East	Eastern	South East	South West	Greater London	**Total**
Miscellaneous articles	39.9	2.1	2.7	1.5	1.4	1.2	0.5	0.9	0.4	0.4	0.3	51.3
Other foodstuffs	17.9	1.9	2.6	1.8	1.6	1.4	1.1	0.5	0.5	0.8	0.2	30.3
Other crude minerals	21.3	0.7	0.4	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	24.3
Miscellaneous manufactures	10.0	1.6	0.9	1.0	0.7	0.6	0.5	0.6	0.4	0.4	0.2	16.9
Chemicals	7.7	1.6	0.5	0.6	0.3	0.5	0.7	0.4	0.4	0.3	0.1	13.1
Other building materials	8.3	0.8	0.6	0.3	0.5	0.2	0.3	0.2	0.2	0.1	0.1	11.7
Sand, gravel and clay	8.0	0.4	0.7	0.3	0.1	0.3	0.1	0.0	0.0	0.1	0.0	10.2
Petrol and petroleum products	6.8	0.5	0.5	0.1	0.3	0.6	0.3	0.0	0.1	0.1	0.0	9.2
Agricultural Products	5.0	0.7	0.7	0.5	0.6	0.6	0.1	0.1	0.1	0.1	0.1	8.7
Cements	7.3	0.3	0.1	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	8.4
Machinery and transport equipment	4.3	0.5	0.8	0.6	0.3	0.2	0.2	0.4	0.3	0.1	0.1	7.7
Beverages	4.6	0.4	0.5	0.3	0.5	0.1	0.2	0.1	0.1	0.2	0.1	6.9
Crude materials	2.6	0.3	0.2	0.1	0.1	0.4	0.1	0.1	0.2	0.0	0.0	4.0
Wood, Timber and cork	2.5	0.3	0.2	0.1	0.1	0.3	0.1	0.0	0.1	0.1	0.0	3.7
Iron and steel products	1.8	0.5	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	3.7
Ores	2.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	2.6
Other metal products	1.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	2.4
Fertiliser	0.9	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.5
Coal and Coke	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.9
Total	**153.0**	**13.2**	**12.2**	**8.4**	**7.7**	**7.4**	**4.9**	**3.8**	**3.1**	**2.8**	**1.3**	**217.7**

Table 15: Estimated Intermodal Rail and Road Haulage Costs

Tilbury - ex Knowsley			**Hull - ex Knowsley**		
Distance to Knowsley	390	km	Distance to Knowsley	210	km
1xClass 66 and 1x16 Megafrets undertaking			1xClass 66 and 1x16 Megafrets undertaking		
1 service per weekday, loaded both directions			1 service per weekday, loaded both directions		
Round trip - inc shunting	16	hrs	Round trip - inc shunting	11	hrs
(24 units in both directions)			(24 units in both directions)		
	per day			*per day*	
Traction - fixed	£3,168		Traction - fixed	£2,178	
Traction - running	£2,012		Traction - running	£1,084	
Wagons	£928		Wagons	£928	
Track Access - loco	£140		Track Access - loco	£75	
Track Access - wagons	£682		Track Access - wagons	£367	
Total train costs	*£6,931*		*Total train costs*	*£4,632*	
Train cost per unit	***£144***		***Train cost per unit***	***£97***	
Shunt and lift Tilbury	£45		Shunt and lift Hull	£45	
Lift Knowsley Terminal	£25		Lift Knowsley Terminal	£25	
Shunt Knowsley-Wigan	£42		Shunt Knowsley-Wigan	£42	
Total - Tilbury to Wigan	**£256**		**Total - Hull to Wigan**	**£208**	
Road Haulage			**Road Haulage**		
Distance to Wigan	400	km	Distance to Wigan	210	km
Total - Tilbury to Wigan	**£470**		**Total - Hull to Wigan**	**£291**	

DIRFT - ex Knowsley			**Mossend - ex Knowsley**		
Distance to Knowsley	225	km	Distance to Knowsley	330	km
1xClass 66 and 1x16 Megafrets undertaking			1xClass 66 and 1x16 Megafrets undertaking		
1 service per weekday, loaded both directions			1 service per weekday, loaded both directions		
Round trip - inc shunting	11	hrs	Round trip - inc shunting	16	hrs
(24 units in both directions)			(24 units in both directions)		
	per day			*per day*	
Traction - fixed	£2,178		Traction - fixed	£3,168	
Traction - running	£1,161		Traction - running	£1,703	
Wagons	£928		Wagons	£928	
Track Access - loco	£81		Track Access - loco	£118	
Track Access - wagons	£394		Track Access - wagons	£577	
Total train costs	*£4,741*		*Total train costs*	*£6,494*	
Train cost per unit	***£99***		***Train cost per unit***	***£135***	
Shunt and lift DIRFT	£45		Shunt and lift Mossend	£45	
Lift Knowsley Terminal	£25		Lift Knowsley Terminal	£25	
Shunt Knowsley-Wigan	£42		Shunt Knowsley-Wigan	£42	
Total - DIRFT to Wigan	**£211**		**Total - Mossend to Wigan**	**£247**	
Road Haulage			**Road Haulage**		
Distance to Wigan	225	km	Distance to Wigan	330	km
Total - DIRFT to Wigan	**£306**		**Total cost – Mossend to Wigan**	**£404**	

Table 16: Estimated Knowsley-Wigan Shunting Costs

Knowsley-Wigan shunting		
Annual fixed operating cost	£135,000	Tractor unit and skeletal semi-trailer
Running cost	£0.48	per km
Assume:		
Round trips per day per HGV	9	
Loaded containers per trip	2	x 40/45ft containers
Distance per round trip	54	km
Working days per annum	260	Mon-Fri
Fixed cost per day	£519	
Running cost per day	£233	
Total operating costs per day	*£753*	
Cost per container	**£42**	

Table 17: Large Scale Warehousing in the Wigan Area

Company	Address 1	Address 2	Address 3	Address 4	Postcode	Covered floor space (m2)
J J B Sports plc	Martland Mill Industrial Estate	Challenge Way	Wigan	Lancashire	WN5 0LD	76,609
Heinz & Company	Kitt Green Road	Wigan	Lancashire		WN5 0JL	66,290
GUS	Martland Mill Lane	Wigan	Lancashire		WN5 0LZ	55,511
Q V C	South Boundary Road	Liverpool			L33 7SF	51,011
Somerfield Distribution Centre	Lea Green	Elton Head Road	St Helens	Merseyside	WA9 5AX	47,077
J Sainsbury plc	Point 23	Hallwood Avenue	Haydock	St Helens	WA11 9UL	46,346
Great Bear Distribution	Stanley Industrial Estate	Staveley Road	Skelmersdale	Lancashire	WN8 8DZ	46,052
Matalan Distribution Centre	Gillibrands Road	Skelmersdale	Lancashire		WN8 9TB	43,468
Home Delivery Network	Nos 1 & 2, Beehive Mills	Crescent Road	Bolton		BL3 2LT	41,301
Comet	XL Business Park	Statham Road	Skelmersdale	Lancashire	WN8 8DY	40,732
Iceland	48 Hardwick Grange	Woolston	Warrington		WA1 4RF	40,645
Adidas Distribution Centre	100 Westinghouse Road	Trafford Park	Manchester		M17 1PY	36,636
Sutton & Sons St Helens Ltd.	Elton Head Road	St Helens	Merseyside		WA9 5SX	36,388
The Big Rack	Deacon Park	Moorgate Road	Liverpool		L33 7HX	35,512
Lloyd Fraser (Wholesale) Ltd.	Point 23	Hallwood Avenue	Haydock	St Helens	WA11 9WD	34,948
Eddie Stobart Ltd.	Hawleys Lane	Warrington			WA2 8JP	34,337
MSAS Global Logistics	Dallam Lane	Warrington			WA2 7NT	32,827
Argos Direct	Jupiter Building, Phoenix Way	Barton Dock Road	Urmston	Manchester	M41 7TB	31,144
-	Unit B, Haydock Cross	Kilbuck Lane	Haydock	St Helens	WA11 9UX	30,957
-	Units 2-3 & 5A-5B	Moorgate Point	Moorgate Road	Liverpool	L33 7HX	30,713
Proctor and Gamble	Pimbo Road	Skelmersdale	Lancashire		WN8 9PE	30,262
TDG/Kelloggs	Unit 5	Fraser Place	Trafford Park	Manchester	M17 1DW	29,464
Wm Morrison Supermarkets plc	Hardwick Grange	Woolston	Warrington		WA1 4RJ	28,631
Wolseley UK Distribution Centre	Buckshaw Avenue	Chorley	Lancashire		PR6 7AJ	28,559
Ethel Austin Ltd.	School Lane	Prescot	Merseyside		L34 9GJ	28,245
The Sovereign Distillery	Wilson Road	Liverpool			L36 6AD	28,112
Merlin 310	100 Barton Dock Road	Stretford	Manchester		M32 0YQ	27,953
Asda	XL Business Park	Statham Road	Skelmersdale	Lancashire	WN8 8EF	27,363

Asda Stores Glass Glover Distribution Ltd.	Wheatlea Industrial Estate	Wigan	Lancashire		WN3 6XP	26,227
Imperial Multipart Holdings Ltd.	Logistics House	Buckshaw Avenue	Chorley	Lancashire	PR6 7AJ	24,725
-	Units 1-4	Stadium Industry Park	Peasley Cross Lane	St Helens	WA9 3AN	24,625
-	Warehouse A-L	Trafford Wharf Road	Trafford Park	Manchester	M17 1ND	24,331
Stone Logistics Ltd.	Lorne Street	Farnworth	Bolton		BL4 7LW	22,492
-	Unit 3	Appleton Thorn Trading Estate	Lyncastle Road	Appleton	WA4 4SN	22,354
Handleman UK Ltd.	Great Bank Road	Wingates Industrial Estate	Westhoughton	Bolton	BL5 3XU	22,280
SCA Hygiene Products UK Ltd.	Ashburton Road West	Trafford Park	Manchester		M17 1BN	21,744
Boots	Unit 2	Fraser Place	Trafford Park	Manchester	M17 1DW	21,528
Kellogg Co. of Great Britain Ltd.	Park Road	Trafford Park	Manchester		M32 8RA	21,350
DHL	125 Trafford Wharf Road	Trafford Park	Manchester		M17 1HJ	21,320
Connect Hygiene	Units 1 & 2	Royce Trading Est.	Ashburton Road West	Trafford Park	M17 1RY	19,825
Kingsland Wines & Spirits	The Winery	Fairhills Road	Irlam	Manchester	M44 6BD	19,433
H Diaper & Co. Ltd.	11 Lees Road	Liverpool			L33 7SE	19,147
Walkers Snack Foods Ltd.	Leacroft Road	Birchwood	Warrington		WA3 6SB	18,574
Excel Logistics Ltd.	Unit 7, Lockett Road	Ashton-in-Makerfield	Wigan	Lancashire	WN4 8DE	18,158
SCA Hygiene Products	Lock Street	St Helens	Merseyside		WA9 1HS	17,794
Quinn Radiators Ltd.	Spinning Jenny Way	Leigh	Lancashire		WN7 4PE	17,624
News International Newspapers Ltd. (Knowsley)	Kitling Road	Prescot	Merseyside		L34 9HN	17,417
Vernon Carus	Unit 9, Western Avenue	Matrix Park	Buckshaw Village	Chorley	PR7 7NB	17,414
Littlewoods Clearance Ltd.	Blackshaw Lane	Bolton			BL3 5PL	17,029
26 Bond	Europa Way	Trafford Park	Manchester		M17 1WF	16,643
Matalan	Ainsworth Lane	Prescot	Merseyside		L34 9EU	16,613
Asda Stores Ltd.	Makerfield Way	Ince	Wigan	Lancashire	WN2 2PR	16,576
Littlewoods Group	Lester Road	Little Hulton	Manchester		M38 0PT	16,525
Panaloc	Alba Way	Barton Dock Road	Trafford Park	Manchester	M32 0ZH	16,238
elinens.co.uk	Dove Mill	Dove Road	Bolton		BL3 4AX	16,168
TDG Logistics Euroterminal	Westinghouse Road	Trafford Park	Manchester		M17 1PG	15,707
Caterpillar Logistics Services Ltd.	Northbank Industrial Estate	Frank Perkins Way	Irlam	Manchester	M44 3BL	15,432
Fiat Parts Operations	Hawleys Lane	Warrington			WA2 8JP	15,328
Somerfield Stores Ltd.	Abbotsfield Road	St Helens	Merseyside		WA9 4HU	15,327
Rail Freight Terminal	Woodward Road	Liverpool			L33 7UY	15,266

-	Ground Floor, Unit 30	Wigan Enterprise Park	Seaman Way	Ince, Wigan	WN2 2LE	15,127
-	Unit 1, Blackrod Mill	Station Road	Blackrod	Bolton	BL6 5JE	15,106
TDG Pinnacle	Howley Lane	Warrington			WA1 2EB	14,916
EBM Builders Merchants Ltd.	Atlas No. 6 Mill	Mornington Road	Bolton		BL1 4QG	14,847
-	Centrepoint V	Westinghouse Road	Trafford Park	Manchester	M17 1PY	14,729
Acorn Storage Ltd.	Unit 1, Hercules Business Park	Lostock Lane	Lostock	Bolton	BL6 4BR	14,614
CSL	Units 1 & 2	Ashton Road	Golborne	Warrington	WA3 3UT	14,457
PPG Glass Fibres Ltd.	Leigh Road	Hindley	Wigan	Lancashire	WN2 4XQ	14,407
Allied Carpet Stores Ltd.	Raikes Lane	Bolton			BL3 2RE	14,318
-	Units 7 & 7a	Lancashire Enterprise Business Park	Centurion Way	Farington	PR25 3GR	14,170
-	Unit 14, Deacon Trading Estate	Earle Street	Newton-le-Willows	Merseyside	WA12 9XD	14,069
-	Unit 1	Agecroft Commerce Park	Lamplight Way	Swinton	M27 8UJ	13,939
Manchester Storage	Mosley Road	Trafford Park	Manchester		M17 1NB	13,721
Burtons Foods Ltd.	Acornfield Road	Liverpool			L33 7UG	13,687
Royal Mail Group plc	Mill Lane	Winwick	Warrington		WA2 8RL	13,661
-	Unit 16, Deacon Trading Estate	Earle Street	Newton-le-Willows	Merseyside	WA12 9XD	13,648
Regatta Clothing	Risol House	Mercury Way	Trafford Park	Manchester	M41 7RR	13,564
Ingersoll Rand Co. plc (Air Solutions Group)	North Side, Swan Lane	Hindley	Wigan	Lancashire	WN2 4EZ	13,025
Fencing Supplies Ltd.	Mellors Road	Trafford Park	Manchester		M17 1PB	12,817
AAH Pharmaceuticals	Calver Road	Warrington			WA2 8LT	12,549
Denholm Distribution Services Ltd.	Simonswood Industrial Park	Stopgate Lane	Kirkby	Liverpool	L33 4YA	12,396
TDG Logistics	Langford Way	Barley Castle Lane	Appleton	Warrington	WA4 4SN	12,361
Austin Trumanns Steel Group Ltd.	Moss Lane	Worsley	Manchester		M28 3WD	12,337
Bayliss Distribution Ltd.	Birchwood Lane	Moore	Warrington		WA4 6XJ	12,027
Makro Self Service Wholesalers Ltd.	Liverpool Road	Eccles	Manchester		M30 7RT	11,996
-	vacant warehouse (adjacent to Beck & Pollitzer)	Birchwood Lane	Moore	Warrington	WA4 6XE	11,502
Costco Wholesale	Andover Road	Haydock Industrial Estate	Haydock	St Helens	WA11 9FA	11,455
Hays Distribution	Barton Dock Road	Trafford Park	Manchester		M32 0ZH	11,432
Georgia Pacific GB Ltd.	Lockett Road	Ashton-in-Makerfield	Wigan	Lancashire	WN4 8DE	11,307
John K Philips Warehousing Ltd.	Stadium Industry Park	Peasley Cross Lane	St Helens	Merseyside	WA9 3AN	11,212
Costco	Barton Dock Road	Trafford Park	Manchester		M32 0ZH	11,182

Dams International Ltd.	Gores Road	Liverpool			L33 7XS	11,141
Hoover Ltd.	Breightmet Industrial Estate	Bury Road	Bolton		BL2 6PU	11,061
-	1060 Europa Boulevard	Westbrook	Warrington		WA5 7YU	11,018
Shop Direct Group Ltd.	Hall Bank	Eccles	Manchester		M30 8LR	11,010
-	Unit 3, Peel Road Industrial Centre	Peel Road	Skelmersdale	Lancashire	WN8 9PT	10,998
Fujitsu	Temple Court	Daten Avenue	Risley	Warrington	WA3 6GD	10,804
Container Base Manchester Ltd.	Barton Dock Road	Trafford Park	Manchester		M32 0ZH	10,760
-	Sections 2/4 & Units B1/B2 at 3 Bond	Wharfside Way	Trafford Park	Manchester	M17 1AN	10,715
Beck & Pollitzer	Birchwood Lane	Moore	Warrington		WA4 6XE	10,638
Westinghouse Cool Storage Ltd.	Westinghouse Road	Trafford Park	Manchester		M17 1QP	10,575
Spooner Vicars Ltd.	Junction Lane	Newton-le-Willows	Merseyside		WA12 8DL	10,324
-	Unit 10, Yew Tree Way	Stone Cross Park	Golborne	Warrington	WA3 3JD	10,119
Tradeteam Ltd.	Acornfield Road	Liverpool			L33 7SP	9,983
Baker Britt (Northern) Ltd.	Acornfield Road	Liverpool			L33 7SP	9,890
Makro	Horn House Lane	Liverpool			L33 7YQ	9,748
Mark Two Distributors Ltd.	Bury Road Industrial Estate	Bury Road	Bolton		BL2 6AZ	9,736
Henry Bath & Sons	Yardley Road	Liverpool			L33 7SS	9,496
JTF Wholsale	1 Chesford Grange	Woolston	Warrington		WA1 4RQ	9,494
-	Unit 10	Stretton Distribution Centre	Grappenhall Lane	Appleton	WA4 4QT	9,492
Storage World Ltd.	34 Brindley Road	Manchester			M16 9HQ	9,397
Iron Mountain	Langford Way	Barley Castle Lane	Appleton	Warrington	WA4 4TQ	9,295
-	27 Leacroft Road	Birchwood	Warrington		WA3 6PJ	9,283
-	Unit 7	Yew Tree Way	Stone Cross Park	Golborne	WA3 3TD	9,243
Scottish Courage/Kuehne and Nagel	Lyncastle Road	Barley Castle Trading Estate	Appleton	Warrington	WA4 4RG	9,224
W Baybutt (Burscough) Ltd.	Plantation Road	Ormskirk	Lancashire		L40 8JT	9,011
-	Unit 1	Appleton Thorn Trading Estate	Lyncastle Road	Appleton	WA4 4SN	9,002
					TOTAL	**2,370,342**

Table 18: Large Manufacturing Facilities in the Wigan Area

Company	Address 1	Address 2	Address 3	Postcode	Covered floor space (m2)	Comments
British Bakeries (Northern) Ltd	Cale Lane	Aspul	Wigan	WN2 1JR	19,768	
PPG Fibree Glass	Leigh Road	Hindley	Wigan	WN2 4QX	46,843	
SCA Packaging	Warrington Road		Wigan	WN3 6SB	43,000	
Walkers Snack Foods Ltd	Pennine Place	Upholland	Skelmersdale	WN8 9QF	18,701	
SCA Hygeine	Pimbo Road		Skelmersdale	WN8 9PD	51,923	
Warburtons Ltd	Hereford Street		Bolton	BL1 8JB	12,454	
Georgia Pacific	Mansell Way	Horwich	Bolton	BL6 5JL	37,952	Paper, tissue and pulp products
Pilkington Works	Watson Street		St Helens	WA9 5DZ	69,954	
Leyland Trucks	Lancashire Enterprise Business Park	Centurian Way	Leyland	PR26 3GR	105,000	
Kraft Foods	Deacon Park	Moregate Road	Liverpool	L33 7HX	45,000	Still open?
Sonae	Moss Lane	Kirkby	Liverpool	L33 7EG	50,635	Chipboard
Greencore Foods	Grosvenor Grange	Woolston	Warrington	WA1 4SF	11,000	
Unilever	2 Liverpool Road		Warrington	WA5 1AA		
St Gobain Industrial Ceramics	Mill Lane	Rainford	St Helens	WA11 8LP	17,000	
Proctor and Gamble	Trafford Park Road	Trafford Park	Manchester	M17 1NX	38,387	
SCA Hygeine Products	Trafford Park Road	Trafford Park	Manchester	M17 1EQ	33,289	
Unilever Best Foods	Trafford Park Road	Trafford Park	Manchester	M17 1HH	28,822	
Kelloggs	Park Road	Trafford Park	Manchester	M17		
Cargill	Guinness Road	Trafford Park	Manchester	M17 1PA	46,121	
AG Barr	North Road	Atherton		M46 0RF	14,865	