

# **A survey and analysis of freight traffic at Mersey Estuary ports in April-May 2026**

**An analysis by Jonathan Roberts Consulting (JRC)  
of shipping cargo volume and port HGV traffic,  
for the independent joint report by Greengauge 21 and JRC  
to Rimrose Valley Friends,  
on better ways to access Liverpool's port**

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# A survey and analysis of freight traffic at Mersey Estuary ports in April-May 2026

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The main joint report by Greengauge 21 and Jonathan Roberts Consulting was published in October 2026 as an independent review for Rimrose Valley Friends:

**“In place of a damaging road scheme: better ways to access Liverpool’s port”**

It is available through this link: [portofliverpoolaccess.com](https://portofliverpoolaccess.com), with press releases from Rimrose Valley Friends: [Fresh-look-at-port-of-liverpool-access-highlights-potential-for-rail-freight/](#) and from Greengauge 21: [Improving-rail-access-to-the-port-of-liverpool/](#)

## Background

- 1 In recent decades, most heavy goods vehicle access to the Port of Liverpool has depended on the 'final mile' from the M57/M58 junction at Switch Island to the docks at Seaforth being made via the A5036 road through the suburbs of Netherton, Litherland and Seaforth.
- 2 In its budget statement of October 2024, Government cancelled a proposed port access road between Switch Island and the Port of Liverpool. It would have been built along the length of the Rimrose Valley Country Park, which is an increasingly valued local amenity.
- 3 While the cancellation decision has been welcomed by Sefton Metropolitan Borough Council, it has meant that substantial volumes of Heavy Goods Vehicles (HGVs) will continue to access the Port on existing roads including the A5036.
- 4 A5036 is managed by the Department for Transport's (DfT) agency, National Highways, rather than the local authority or Liverpool City Region. National Highways will no doubt retain plans for the scheme, with an eventual potential of seeking re-instatement.
- 5 Accordingly, Rimrose Valley Friends (RVF) with support from Transport Action Network commissioned policy research group Greengauge 21 and Jonathan Roberts Consulting Ltd (JRC)<sup>1</sup>, together to examine the situation and provide independent technical advice on practicable alternatives to the road proposal.

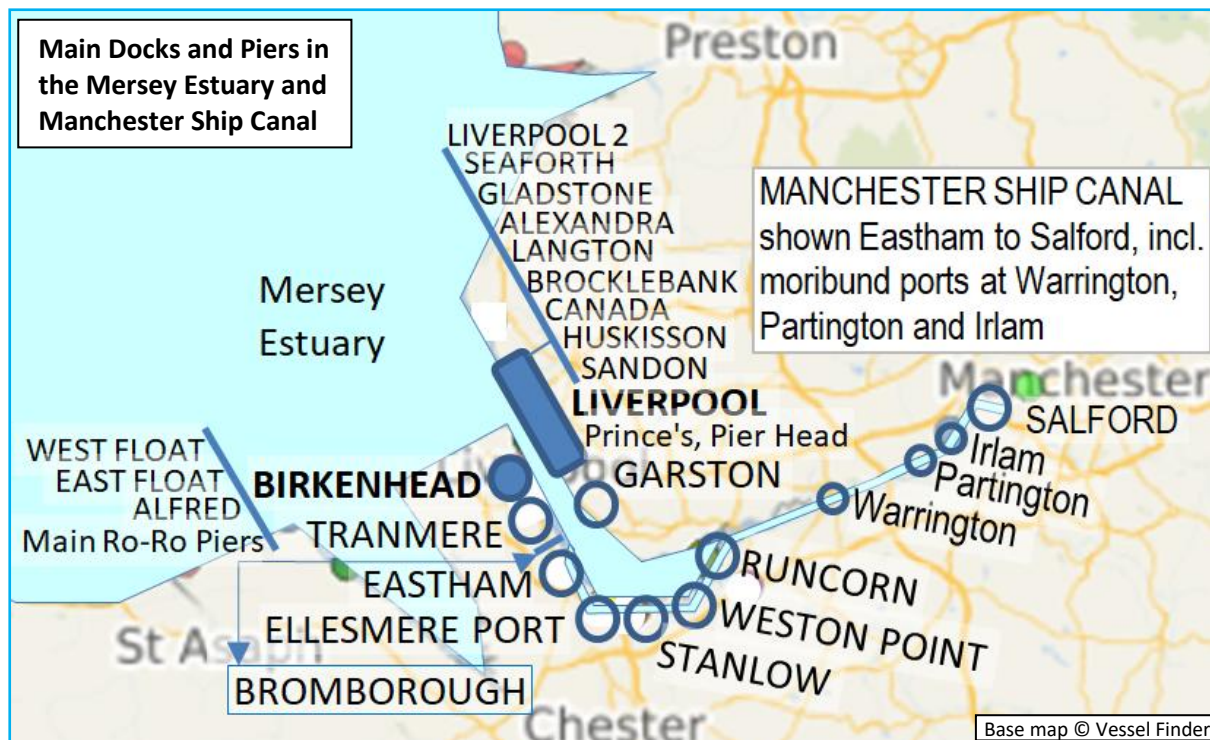
## Requirement for shipping cargo survey

- 6 The Port of Liverpool is the primary group of docks and piers around the Mersey Estuary. It includes the Port of Birkenhead as far as Bromborough, on the Wirral - the opposite bank of the Mersey. Two other Ports as defined by the DfT also cluster around the Mersey:
  - the Port of Manchester which begins at Eastham Dock and Locks, at the start of the Manchester Ship Canal. Both this and Liverpool are owned by the Peel Group.
  - The Port of Garston, south of central Liverpool, owned by Associated British Ports.
- 7 On the Mersey, cargo arrives and departs not in one concentrated port complex but at multiple docks and piers distributed along its length. These are upstream from the river mouth at Liverpool 2 and Seaforth, past central Liverpool and Birkenhead, and along the Ship Canal as far as Runcorn (23 miles). The Ship Canal is lightly used east of Runcorn to Salford, though Peel Ports has proposed schemes for growth and development<sup>2</sup>.
- 8 Busiest sectors are on the Liverpool bank between Seaforth and the city centre (5 miles), and then on the Wirral bank from Birkenhead to Tranmere (3 miles). Main docks and piers are shown below schematically.

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<sup>1</sup> JRC has recent specialist experience in assessing alternatives to another major road scheme, the Lower Thames Crossing. See the TAN website: <https://transportactionnetwork.org.uk/the-roberts-report/>

<sup>2</sup> Peel plan: [ocean-gateway-scheme-liverpool-peel-aims-to-deliver-50-projects-over-50-years-with-50bn](#)



- 9 With a river and canal frontage of this length, the DfT port-level shipping cargo data is not sufficient to understand where cargoes will have their greatest impact on main access roads. This limits the value of this source of evidence for examining specific access routes such as the A5036. Dock and pier level information is needed.
- 10 Consequently, as part of the commission, JRC carried out a comprehensive shipping survey over a month, using real-time ship tracking sites to acquire data at Dock level, and in most cases the use of individual berths. It included over 940 arrivals and departures by cargo ships and Irish Sea ferries, a considerable volume. The survey included vessels' length of stay in Liverpool, Manchester Ship Canal or Garston Docks, arrival and departure load levels, and where possible cargo types. Rail freight at the Port was also surveyed.

## Scale of cargo activity – recent traffic

- 11 To understand the contextual scale of the shipping volume, and to provide a quality check on the scale of cargo volumes that JRC assessed in Spring 2026 and then annualised, DfT's published annual Port data was sampled for 5-year periods, from 2004 to 2024<sup>3</sup>.
- 12 The sampling included all ports in a regional catchment Arc covering South Scotland, the NW Region and North Wales, embracing much of the Irish Sea. This includes all cargoes at:
  - Liverpool, Manchester and Garston.
  - Other regional ports as defined by the DfT<sup>4</sup>.
  - Irish Sea ferry ports at Loch Ryan, Heysham, Fleetwood (closed 2010) and Holyhead.

<sup>3</sup> From DfT Port statistics (PORT0301). 2025 data was published on 30 July 2026, too late for this report.

<sup>4</sup> Active minor ports in 2004-24 were: Silloth, Workington, Barrow, Glasson, Mostyn, Llandulas, Port Penrhyn.

- 13 The DfT data shows that, on its own, the Port of Liverpool is the fifth busiest for annual tonnage in the United Kingdom, and the seventh busiest in terms of unitized traffic. The scale is of national as well as regional significance, more so when the other Mersey ports are included. Combined, Liverpool, Manchester and Garston rank third largest in the UK in 2024, at 38m tonnes. Larger port groups by volume are London (52m) and Grimsby/Immingham (44m).

| NW England & further: major port freight traffic (+ Garston), by port and year, 5-yearly 2004-2024, incl. GB mainland ports handling Irish & IoM ferries |                      |             |             |             |             |             |                |                |                |                |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|
| ALL FLOWS: Both Directions of traffic flow                                                                                                               |                      | Tonnes      |             |             |             |             | Units          |                |                |                |                |
| Major Ports                                                                                                                                              | Port Group           | 2004 tonnes | 2009 tonnes | 2014 tonnes | 2019 tonnes | 2024 tonnes | 2004 all units | 2009 all units | 2014 all units | 2019 all units | 2024 all units |
| Cairnryan                                                                                                                                                | Scotland West Coast  | 2,848,869   | 2,571,913   | 2,368,371   | 2,704,839   | 4,162,291   | 365,073        | 367,276        | 307,964        | 317,649        | 298,789        |
| Loch Ryan (<2011 Stranrair)                                                                                                                              | Scotland West Coast  | 1,277,165   | 1,176,987   | 2,038,483   | 2,649,748   | 2,698,205   | 408,821        | 350,704        | 426,836        | 506,743        | 558,974        |
| Heysham/ Fleetwood († 2010)/ Preston († 1981)                                                                                                            |                      | 5,201,277   | 4,428,843   | 4,472,346   | 4,536,437   | 5,510,997   | 536,217        | 470,977        | 356,956        | 362,527        | 436,986        |
| Liverpool                                                                                                                                                | Lancs and Cumbria    | 32,232,889  | 29,936,422  | 30,995,861  | 34,314,657  | 31,284,217  | 1,029,254      | 1,025,290      | 1,128,052      | 1,375,019      | 1,233,088      |
| Manchester (& MSC)                                                                                                                                       | Lancs and Cumbria    | 6,634,166   | 6,670,344   | 7,124,506   | 7,307,189   | 6,045,196   | 646            | 340            | 55             | 5              | 3,630 Spain    |
| Garston (minor port)                                                                                                                                     | Lancs and Cumbria    | 511,000     | 505,000     | 499,000     | 490,000     | 513,244     | 0              | 0              | 0              | 0              | 0              |
| Holyhead                                                                                                                                                 | West and North Wales | 3,945,425   | 2,852,331   | 3,663,155   | 5,326,104   | 4,307,969   | 776,095        | 750,485        | 824,677        | 952,966        | 776,261        |
| Total, tonnes or units                                                                                                                                   |                      | 52,650,791  | 48,141,840  | 51,161,722  | 57,328,974  | 54,522,119  | 3,116,106      | 2,965,072      | 3,044,540      | 3,514,909      | 3,307,728      |
| of which, Mersey Estuary ports                                                                                                                           |                      | 75%         | 77%         | 75%         | 73%         | 69%         | 33%            | 35%            | 37%            | 39%            | 37%            |

- 14 The past 20-year trading history is shown by these statistics which highlight the Mersey Estuary ports. Measured as tonnes, total two-way port cargo volumes through the Mersey Estuary ports have fluctuated around 37-42 million tonnes since 2004, recently at about 70% of the total NW Ports' throughput, though with less than 40% of all unitised freight.
- 15 In the second half of the assessed period, the UK has experienced: the impact of Brexit and then Covid; border complexities with Northern Ireland; Russian invasion of Ukraine and its trading and fuel price consequences; Middle East volatility and wars; plus US trade sanctions since 2024. All these have been blows to international economic stability and trade growth, otherwise the Mersey Ports could now be busier – as had been forecast.
- 16 British industrial weaknesses have intensified, with a greater imbalance between tonnes inwards and outwards. Also, the proximity of the Mersey Estuary ports to Ireland has dampened growth for some flows historically routed via Great Britain. Eire has supported new, direct intra-EU ferry services between Irish ports, France and the Low Countries.

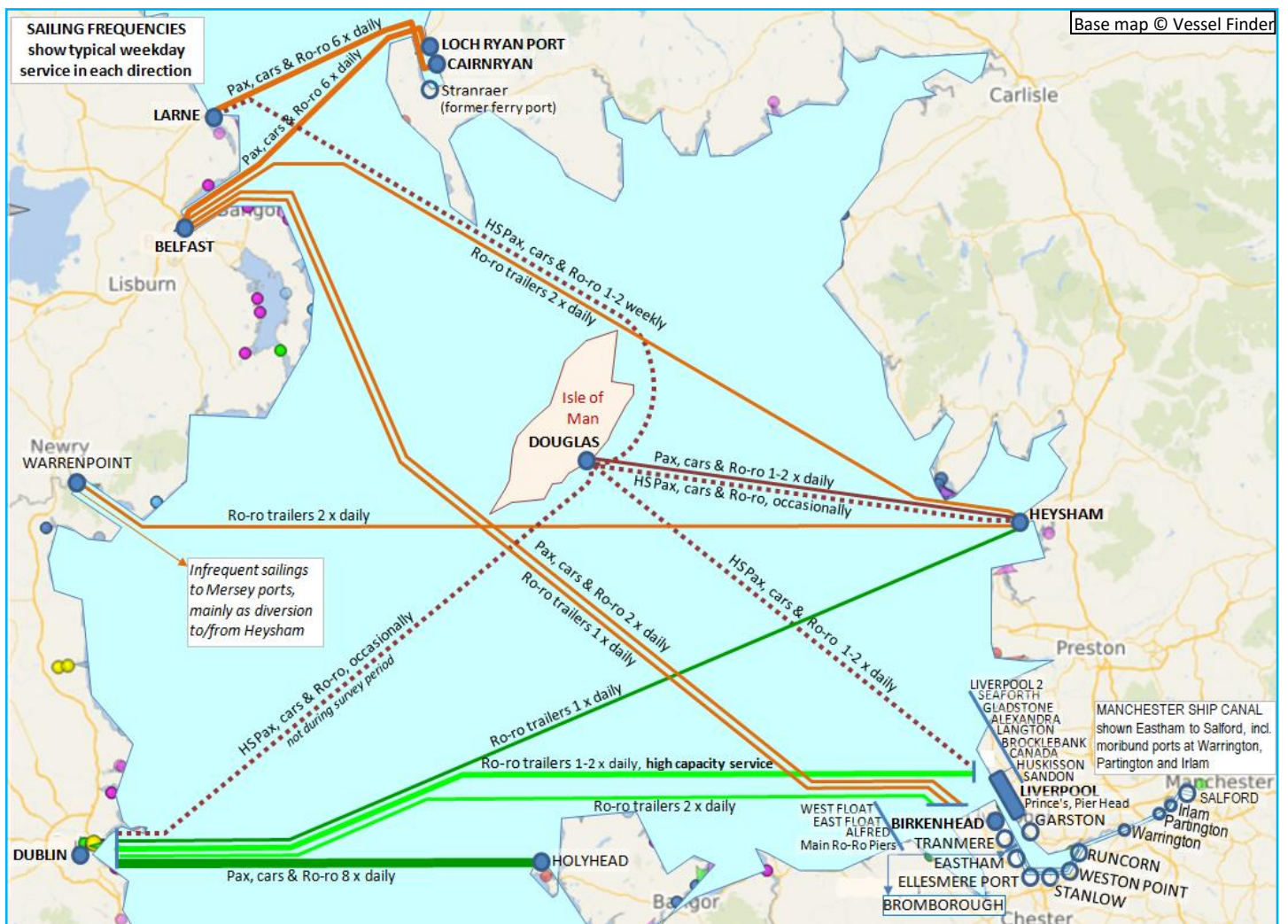
## Types of freight flows

- 17 The hinterland of the catchment Arc reaches as far as the West Midlands and beyond the Pennines into Yorkshire, so covers the mainland industrial and commercial zones for these ports. Some short-sea ferry flows have more distant hinterlands when the particular sea crossing offers efficient HGV operational hours in Great Britain or Ireland. The lorries or trailers are then 'uncrewed' for the duration of the sea crossing.
- 18 The shares of traffic handled through the Port of Liverpool and the Manchester Ship Canal can be seen more clearly when disaggregated into DfT freight flow classifications. [NB, DfT does not provide a cargo inventory for the Port of Garston.]

NW England & further: major port freight traffic (+ Garston), by port and year, 5-yearly 2004-2024, incl. GB mainland ports handling Irish & IoM ferries

|                                                                    | Tonnes         |                |                |                |                | Units             |                   |                   |                   |                   |
|--------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                                                    | 2004<br>tonnes | 2009<br>tonnes | 2014<br>tonnes | 2019<br>tonnes | 2024<br>tonnes | 2004<br>all units | 2009<br>all units | 2014<br>all units | 2019<br>all units | 2024<br>all units |
| <b>Ports as ferry terminal (Ro-Ro incl unaccompanied trailers)</b> |                |                |                |                |                |                   |                   |                   |                   |                   |
| Ferry-related tonnes or units                                      | 18,615,381     | 17,224,385     | 19,504,849     | 22,975,279     | 23,181,751     | 2,737,635         | 2,606,573         | 2,651,480         | 3,011,830         | 2,887,169         |
| Mersey Estuary ports                                               | 32%            | 38%            | 36%            | 34%            | 28%            | 24%               | 26%               | 28%               | 29%               | 28%               |
| <b>Other unitised volumes (via Lo-Lo = containers)</b>             |                |                |                |                |                |                   |                   |                   |                   |                   |
| Unitised tonnes or units                                           | 4,543,958      | 4,200,156      | 4,852,949      | 6,267,604      | 4,904,327      | 378,471           | 358,499           | 393,060           | 503,079           | 420,559           |
| Mersey Estuary ports                                               | 100%           | 100%           | 100%           | 100%           | 100%           | 100%              | 100%              | 100%              | 100%              | 100%              |
| <b>Bulk Fuel incl crude oil for refining</b>                       |                |                |                |                |                |                   |                   |                   |                   |                   |
| Bulk fuel tonnes or units                                          | 18,179,057     | 17,528,798     | 16,364,666     | 16,061,145     | 14,571,659     | 0                 | 0                 | 0                 | 0                 | 0                 |
| Mersey Estuary ports                                               | 100%           | 100%           | 99.9%          | 100.0%         | 100%           |                   |                   |                   |                   |                   |
| <b>Other bulk: liquid, ores, agricultural, dry bulk</b>            |                |                |                |                |                |                   |                   |                   |                   |                   |
| Other bulk tonnes or units                                         | 9,498,279      | 8,006,534      | 8,882,855      | 10,490,256     | 9,999,277      | 0                 | 0                 | 0                 | 0                 | 0                 |
| Mersey Estuary ports                                               | 95.4%          | 97.6%          | 99.6%          | 100.0%         | 100%           |                   |                   |                   |                   |                   |
| <b>General cargo incl Minor Ports (not incl. above)</b>            |                |                |                |                |                |                   |                   |                   |                   |                   |
| General cargo tonnes or units                                      | 3,567,156      | 2,047,574      | 2,761,899      | 2,579,566      | 2,535,820      | 0                 | 0                 | 0                 | 0                 | 0                 |
| Mersey Estuary ports                                               | 47%            | 51%            | 55.2%          | 59.5%          | 70%            |                   |                   |                   |                   |                   |

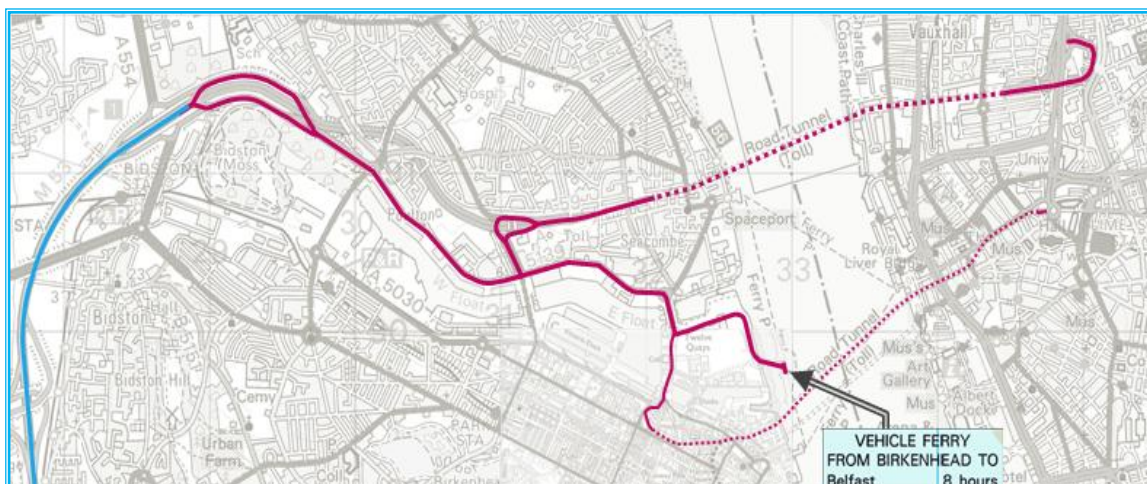
19 **Ferry traffic:** The Port of Liverpool (including Birkenhead) now has a less-than 30% share of traffic to/from Ireland and the IoM, at 6.6m tonnes in 2024, and a similar percentage as Ro-ro units. **Brocklebank Dock (CLdN)** Ro-ro trailer ferries to/from Dublin) and **Birkenhead (Stena)** services for Eire and Northern Ireland) are the main Liverpool ferry terminals. The diagrammatic map below shows ferry frequencies.



- 20 **Unitised volumes**, 4.9m tonnes and 420,000 units, are solely handled in the Port of Liverpool, with a wide spread of North Atlantic and European container services principally via **Liverpool 2** and **Royal Seaforth Docks**. Container ships also provide local container delivery around the Irish Sea ports, and with bus-stop style 'off-on' regional distribution services to/from international mega-terminals such as Antwerp, Rotterdam and London Gateway. Interchange is offered there with world-wide Very Large Container Ships (VLCSS) and the even bigger 'Ultra-Large' vessels.
- 21 **Bulk fuels**: While there has been a slow decline in total volumes as UK has sought to reduce climate change impact, the Port of Liverpool and the Manchester Ship Canal are the only regional source, with 14.6m tonnes in 2024. Tranmere is the primary arrival terminal for crude oil (9.0m tonnes in 2024), while Docks along the MSC are active in distribution of refined products. Much fuel distribution is by onwards coastal and short-sea shipping. Liverpool's Huskisson Dock also has a specialist oil terminal.
- 22 **Other large-scale bulk flows** amounted to 10.0 m tonnes in 2024, spread along the Mersey Estuary docks, with much handled at the specialist bulk wharves in Seaforth, Gladstone, Alexandra and Canada Docks. Such vessels could come from anywhere around the world, and Liverpool is the only port in NW England able to handle the larger sizes. The distribution of such bulk flows is discussed separately.
- 23 **General cargo handling** includes volumes at the DfT-classified Minor Ports. The DfT does not show types of cargo flows at minor ports, so we just compare the Mersey Estuary ports' General cargo volumes (including Garston) with totals for the NW Arc .
- 24 Across the Arc, the total volume has declined from 3½m tonnes to 2½m, but Mersey Estuary ports' share rose from 1.7m tonnes to 1.8m. Garston, an ABP port, has held its volume broadly constant throughout this period. Nevertheless, the Ship Canal has seen a decline in general cargo. In 2019 the MSC volume incl. Eastham Docks was 17% of its ~245,000 tonnes in 2004; in 2024 it was still only a third of 2004 volume.

## Interaction with local roads and national highways

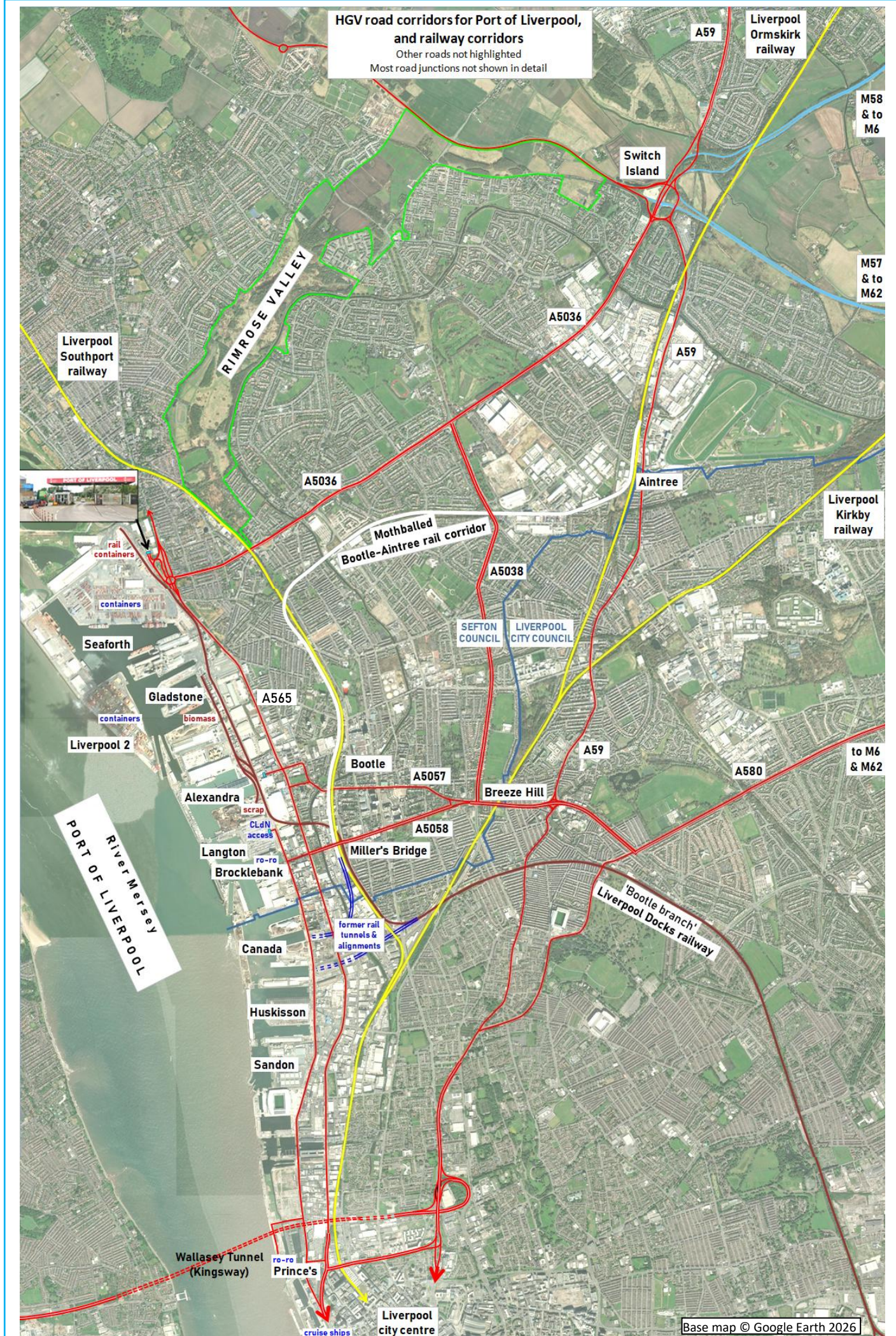
- 25 In the Wirral, the M53 motorway plus the Wallasey Tunnel from Liverpool provide a convenient road access to the Ro-ro terminal at Twelve Quays Pier in Birkenhead. The 3 mile route has limited impact, as it is largely through dockside and commercial lands.



- 26 The linear geography of the Mersey Estuary docks, and their co-existence on the Mersey's eastern shoreline alongside urban settlements, are the causes of the traffic issues. As shown on p.9, Liverpool and Sefton have a larger, more complex traffic geography than the Wirral. The active Docks are west and north-west of the Liverpool urban area. The findings of this report are that the active Docks largely depend on road access via:
- The **A580 'East Lancashire' 1930s arterial road**, linking the central group of Docks with the M6, M62 and the hinterland, via an urban route: Miller's Bridge/Breeze Hill.
  - The **M57 and M58 approaches** which meet at 'Switch Island' north of Aintree. Dock traffic uses the A5036 to the Port at Seaforth, for the main container and bulk Docks. This route can also be used to reach the central Docks via A565 dockside Derby Road, or via A5038 to Breeze Hill.
- 27 Isle of Man sailings at Prince's Pier have capability for HGV and Ro-ro, however the high-speed catamaran *Manannan* is mostly used by cars and vans. Principal lorry flows are via Heysham Port and the *Manxman* Pax-Ro ferry.
- 28 HGV environmental impacts are severe along the A5036, and via the Miller's Bridge/Breeze Hill corridor. The previous proposal for a main road along the Rimrose Valley was partly a heavy engineering response to this, and partly to anticipate future traffic growth forecast to arise from economic growth and from regional population increases.

## Survey and assessment of shipping cargo flows

- 29 Rimrose Valley Friends (RVF), with funding from the Foundation for Integrated Transport, commissioned the consultancies in Spring 2026 to assess the actual extent to which the Port of Liverpool was the cause of the HGV impacts on the A5036. They were asked to consider objectively whether there are potential and realistic options to mitigate or minimise impacts without the need for further planning for a new road.
- 30 DfT data shows that the Port of Liverpool handles 31-34 million tonnes yearly, while land-side industries will account for other tonnes. The practical challenges, both for an initial survey and definition of possible options, are that the Port is not a single-point of maritime/landside interaction for freight transfer.
- On the eastern shoreline, the Port is a 5 miles long multi-Dock, multi-function linear strip including dockside industries. The Port of Garston is 5 miles further on.
  - On the western (Wirral) bank, the Port exists for 3 miles past Birkenhead Docks and Stena's Irish ferry piers, and past Cammell Laird's shipbuilding and repair yards, to Tranmere which is one of Britain's largest crude oil terminals. At 5 miles, the Port reaches Bromborough which adjoins Port Sunlight (Unilever).
- 31 From Eastham, there is the 35 mile Manchester Ship Canal, operationally an elongated harbour now owned by Peel Ports Group and integrated with the Port of Liverpool. It is mostly moribund for short sea shipping east of Runcorn, but remains busy along the first 12½ miles of the Canal where it is contiguous with refineries and other industries.



Main road accesses for the eastern shoreline Docks in Liverpool and Sefton are less favourable than in Birkenhead. This map shows the active Docks and piers, principal roads and the sole freight railway.

32 The commission led to substantial survey and assessment tasks:

- A. A register of significant Docks, wharves and piers along the Mersey Estuary.
- B. Define an adequate survey duration, to measure freight volumes reliably over the period and to be scaled up to annual flows.
- C. Identify all freight-carrying vessels entering and leaving the estuary during the survey period, 24/7, and any other vessels which might require HGV support.
- D. Assess the type and scale of cargoes carried, including on the Ship Canal <sup>5 6</sup>.
- E. Develop a methodology capable of assessing the volumes of freight carried on entry and exit, and the extent to which unloading and loading of cargoes was undertaken.
- F. Monitor the docking locations of each vessel on a continuous basis (some vessels were moved between berths for operational or loading requirements).
- G. Relate the cargo volumes to the Dock and berth locations.
- H. Assess to what extent other freight modes were available and used, such as feeder vessels rather than HGVs, and rail freight services for containers, scrap metals and bulk materials.
- I. Finally, summarise the net HGV capacities required for inwards and outwards flows, recognising that lorry movements may be required two-way even if flows are one-way.
- J. Provisionally allocate those flows to individual road corridors.

## Survey methodology

33 Methodology for the survey tasks and output is now set out:

- A. A working list of significant Docks, wharves and piers was defined, as multiple ships could berth in the same Dock. For example Royal Seaforth has ten berths, excluding its Grain Dock and before counting the additional two container ship berths at Liverpool 2. This list was required to establish which location – and potential road traffic impact – arose with each vessel's arrival and departure.
- B. A month's survey duration was adopted as long enough to see trends with 'out and return' sailings to Northern Europe, the Mediterranean and North America, and patterns of longer bulk cargo flows, as well as a high volume of Irish ferry shuttle trips<sup>7</sup>. Mid-April to mid-May (12/4 to 12/5 inclusive) were taken as the start and end dates, which began a week after Easter and had one UK bank holiday during the period. One working day was added to avoid a slack post-Easter month.

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<sup>5</sup> In a mid-1960s' Port of Manchester brochure, vessels of up to 12,500 tonnes deadweight could then reach Manchester, and 15,000 tonnes to Stanlow Oil Berth (Ince). The Canal's dimensions are similar to European inland navigations, so it sees frequent visits as far as Runcorn by suitable vessels, for direct distribution.

<sup>6</sup> Only one short sea cargo vessel was recorded reaching Salford (Eccles) during JRC's survey month in 2026.

<sup>7</sup> Specialised flows are also accommodated with unitised services. Unitised Mediterranean flows offer chilled foods as well as other goods. These vessels can have quite small capacities, under 10,000 tonnes deadweight, useful for smaller origin Ports and for quick handling at docks. In contrast, a 'Panamax 2' vessel can be carrying up to 85,000 tonnes deadweight, with a similar number of containers. These vessels are about the upper loading limit for the Port of Liverpool, with its Estuary and Dock draught restrictions, and limitations on the reach of Liverpool's Dock-side container cranes. A 'Panamax 2' is also a useful working size for unconstrained access to the St Lawrence Seaway in North America and to many US East Coast ports who prefer medium size container ships rather than VLCSs. [NB: VLCSs should not be confused with VLCCs – Very Large Crude (oil) Carriers.]

- C. There are various on-line ship tracking websites, which can disagree on details including arrival and departure times. Those might be recorded live, or from harbour records reliant on entry/exit times at a Port control zone, or at entry/exit to locks or at berths. Many on-line sites require a subscription to give access to a full range of operational data. Two on-line websites were selected:
- [Vessel Finder](#), which provides details of past multiple voyages, vessels' port berth times, arrival draughts at each port, and details of carrying capacity.
  - [My Ship Tracking](#) is available free on-line for basic tracking data, including frequently-visited ports during the past six months.

For 24/7 live tracking, the best instantly available site is [Marine Traffic](#). This was used during the survey month to record ships' locations and draughts, including approaching, moored, and leaving individual berths or anchorages. Snapshot on-line photos were taken to confirm events during day and night time. This included cruise ships at Liverpool Pier Head (not otherwise logged, as not a major cause of HGV movements). Some of the Irish Sea oil and gas industry has support vessels based at Liverpool, and those specialist vessels were excluded – their cargo was considered unavoidable whether small- or large-scale.

- D & E. Answers on unloading and loading volumes depended on the type and size of vessel, which specialised berths were visited, and on a statistical assessment of reported arrival and departure draughts. While the fully laden draught was generally published, minimum vessel draught was frequently not available, so a record of all minimum stated draughts during the vessel's recent history was compiled and the lowest draught taken as a baseline. Of course, this was most reliable in instances where total unloading was evident or highly likely, which could be applied to many vessels over a month or longer period.

The spread of arrival and departure draughts as a % of the max-&-min possible, was then combined with length of stay in berth, after removing several hours as a margin for docking and variations in reported times<sup>8</sup>. Reasonable average un/load rates were adopted for each vessel type during a 24 hour day. A probability analysis was then applied testing each 10% volume unloading potential from full to zero, and then the associated refill volume at the same average rates to meet the reported departure draught. Unload and refill volumes were proportioned for vessels which arrived before the survey start, or left after the survey's conclusion, to count only the volumes nominally handled during the survey period.

The probability of different unload/load proportions within observed entry/exit draughts and available working berth time, enabled an optimum unload/loading work rate to be applied (as a range between slower and faster activity) to each vessel type, and hence the most probable percentage of cargo unloaded and loaded. There was greater probability of slower or faster daily work rates where Liverpool was known to be at the end of a voyage, or explicitly part of a rapid 'bus-stop' round-ports container distribution service.

Output using statistical modelling was compared with achieved results where full or partial unload was evident and there was no re-load! The results were robust.

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<sup>8</sup> This reduces the potential volume of tonnages handled, with JRC estimation possibly lower than actual.

**F & G.** Monitoring of all berths was undertaken two to three times a day during the survey month, often early AM, middle of day and evening. Some vessels were nocturnal ‘birds of passage’, such as Ro-ro trailer ferries at Birkenhead. Overnight spot checks ensured they were also ‘birds of habit’. Comprehensive arrival and departure shipping moves were recorded for the entire month, across the Mersey Estuary Ports, and at most other active Ports around the Irish Sea, as far as Fort William (Corpach) in Scotland, Londonderry and Cork in Ireland, round to Newport in Wales and Penzance in SW England.

The survey database has flagged up almost all vessel movements regionally through the area, including moves to and from sea anchorages. This is because each berthing and re-berthing movement is (normally) logged separately by on-line monitoring programs. So re-positioning can be interpreted as local movement, not a main voyage. Estimated cargo volumes could then be aggregated for each Port zone, Dock or berthing group (eg, bulk, or containers) and the survey month’s summary set out for each Dock zone.

**H & I.** Use of non-road modes, and resulting net HGV capacities required, are reported later.

## Analysis outputs for shipping and cargo flows

- 34 The table overleaf shows estimated shipping and cargo volumes at Mersey Estuary ports during mid-April to mid-May 2026, annualised (x12) for a full year<sup>9</sup>. Some ships were excluded, such as the operational port fleet (tugs, pilot vessels, etc), specialised support vessels for the Irish Sea oil and gas rigs and related geotechnical surveys, and cruise ships (normally staying one day or less at Pier Head) which did not incur much HGV support.
- 35 Outputs are set out both for wholly cargo vessels and for Irish Sea ferries of different types. **DfT data is summarised in the top part of the table** with 5-yearly samples from 2004 to 2024. **The lower part of the table shows annualised results of the JRC 2026 survey**, with cargo volumes allocated to individual docks and categorised by cargo type. It can be seen that there is good overall correlation between DfT 2024 port cargo data and the JRC 2026 survey output, with a difference of only 5% in total tonnes<sup>10</sup>.

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<sup>9</sup> Extensive data files which provide the statistical background for shipping and cargo analyses are lodged with Rimrose Valley Friends and are also available from JRC.

<sup>10</sup> There are two qualifications:- (A) At Garston, total general cargo tonnes were 513,729 in 2024, while JRC estimated an annual equivalent in 2026 as 330,168 tonnes. While this is mirrored by decline at other small ports in NW England, and on the Manchester Ship Canal, Garston had been stable in the DfT’s 2024 data. Only five vessels (ten vessel movements) were recorded at Garston during the 2026 month’s survey, this may be low. (B) The estimated annual equivalent LPG cargo volume in 2026 was 41,688 tonnes, while the DfT 2024 tonnage was 95,922 tonnes. Only two vessels (four movements) featured in the 2026 month’s survey, this may be low.

| < Wirral & Cheshire side                                                                 |                         | Lancs & main urban side > |                                            |                         |                      |                          |                                                                                                                                                                                            |                        |                       |                  |
|------------------------------------------------------------------------------------------|-------------------------|---------------------------|--------------------------------------------|-------------------------|----------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|------------------|
| DfT port statistics                                                                      | Manchester (Ship Canal) | Garston                   | Liverpool inc Birkenhead                   | Manchester (Ship Canal) | Garston              | Liverpool inc Birkenhead | < Unitised loads, <u>not</u> TEUs.<br>During 2004-2024, one Unit averaged 0.34-0.39 TEUs.<br>Units stated here exclude some indivisible loads, eg vehicles, caravans, road-borne equipment |                        |                       |                  |
|                                                                                          | Tonnes                  | Tonnes                    | Tonnes                                     | Units                   | Units                | Units                    |                                                                                                                                                                                            |                        |                       |                  |
| 2004                                                                                     | 6,634,166               | 511,000                   | 32,232,889                                 | 646                     | 0                    | 1,029,254                |                                                                                                                                                                                            |                        |                       |                  |
| 2009                                                                                     | 6,670,344               | 505,000                   | 29,936,422                                 | 340                     | 0                    | 1,025,290                |                                                                                                                                                                                            |                        |                       |                  |
| 2014                                                                                     | 7,124,506               | 499,000                   | 30,995,861                                 | 55                      | 0                    | 1,128,052                |                                                                                                                                                                                            |                        |                       |                  |
| 2019                                                                                     | 7,307,189               | 490,000                   | 34,314,657                                 | 5                       | 0                    | 1,375,019                |                                                                                                                                                                                            |                        |                       |                  |
| 2024                                                                                     | 6,045,196               | 513,244                   | 31,284,217                                 | Spain 3,630             | 0                    | 1,233,088                |                                                                                                                                                                                            |                        |                       |                  |
| Amber = main source of HGV road traffic   Tonne/barrel: avge crude ~0.142, light ~0.1364 |                         |                           |                                            |                         |                      |                          |                                                                                                                                                                                            |                        |                       |                  |
| Cargo types at Mersey Ports, and values                                                  |                         |                           |                                            | Container TEUs          | Trailers & RoRo TEUs | Bulk Tonnes              | Gen.cargo Tonnes                                                                                                                                                                           | Bulk crude oil Barrels | Chemical/ oil Barrels | LPG liquefied m³ |
| 2024 restated as total Mersey Ports volume, by cargo:                                    |                         |                           |                                            | 746,806                 | 774,418              | 11,277,135               |                                                                                                                                                                                            | 63,971,577             | 39,389,399            | 95,922           |
| Month 2026 (x12) summarised as cargo volumes:                                            |                         |                           |                                            | 632,397                 | 572,695              | 10,980,615               |                                                                                                                                                                                            | 60,306,326             | 37,632,534            | 41,688           |
|                                                                                          |                         | Liverpool 2               | Lancs > & main > urban > side of > River > | 257,565                 |                      |                          |                                                                                                                                                                                            |                        |                       |                  |
|                                                                                          |                         | Seaforth                  |                                            | 374,832                 |                      | 2,390,928                | 470,826                                                                                                                                                                                    |                        |                       |                  |
|                                                                                          |                         | Gladstone                 |                                            |                         |                      | 3,588,780                | 48,204                                                                                                                                                                                     |                        | 1,456,464             |                  |
|                                                                                          |                         | Alexandra                 |                                            |                         |                      |                          | 687,180                                                                                                                                                                                    |                        | 357,168               |                  |
|                                                                                          |                         | Langton                   |                                            |                         |                      |                          |                                                                                                                                                                                            |                        | 1,020,372             |                  |
|                                                                                          |                         | Brocklebank               |                                            |                         | 323,372              |                          |                                                                                                                                                                                            |                        |                       |                  |
|                                                                                          |                         | Canada                    |                                            |                         |                      | 857,784                  | 385,478                                                                                                                                                                                    |                        | 2,659,981             |                  |
|                                                                                          |                         | Huskisson                 |                                            |                         |                      |                          |                                                                                                                                                                                            | 2,855,686              |                       |                  |
| 2026 survey                                                                              |                         | Princes/P.Head            |                                            | max 11,520              |                      |                          |                                                                                                                                                                                            |                        |                       |                  |
| outputs, by Dock                                                                         | < Wirral                | Birkenhead                |                                            |                         | 232,500              |                          | 656,700                                                                                                                                                                                    |                        | 230,772               |                  |
|                                                                                          | < side of               | Tranmere                  |                                            |                         |                      |                          |                                                                                                                                                                                            | 60,306,326             |                       |                  |
|                                                                                          | < River                 | Bromborough               |                                            |                         |                      |                          | 263,906                                                                                                                                                                                    |                        |                       |                  |
|                                                                                          |                         | Garston                   | urban >                                    |                         |                      |                          | 330,168                                                                                                                                                                                    |                        |                       |                  |
| no cargo                                                                                 |                         | Eastham                   |                                            |                         | 5,304                |                          |                                                                                                                                                                                            |                        | 8,793,179             |                  |
| vessels during survey at                                                                 | along the               | Ellesmere Port            |                                            |                         |                      |                          | 454,860                                                                                                                                                                                    |                        | 1,019,887             |                  |
| Warrington, P'ton, Irlam                                                                 | Manchester              | Stanlow                   |                                            |                         |                      |                          |                                                                                                                                                                                            |                        | 18,464,413            | 41,688           |
|                                                                                          | Ship                    | WP/Runcorn                |                                            |                         |                      |                          | 824,680                                                                                                                                                                                    |                        | 774,612               |                  |
|                                                                                          | Canal                   | Salford                   |                                            |                         |                      |                          | 21,120                                                                                                                                                                                     |                        |                       |                  |

36 The principal generators of HGV traffic in and around Liverpool Docks are mostly self-evident, however many incur complexities relating to the actual scale of HGV involvement.

37 **Container and ferry berths on the Liverpool shore at Liverpool 2, Royal Seaforth and Brocklebank Docks** – roundly 960,000 TEUs annually (not counting 230,000 TEUs via Birkenhead, some of which may use the Wallasey Tunnel). Rail haulage of containers is considered in the next section.

38 **Bulk tonne flows at Seaforth, Gladstone and Canada Docks** – about 4.7 million tonnes, excluding 2.1 million tonnes of biomass taken annually by rail to Drax power station and discussed in the next section. Some bulk cargo will be used locally by dockside industries; that too may convert to onwards HGV traffic.

39 There is a flow of **bulk steel coil** inwards by ship to Liverpool, and Peel has built a high quality steel warehouse on the dock from where coil is distributed over a wide area but mainly to the West Midlands. Inwards iron and steel by ship was reported by the DfT as 966,000 tonnes in 2024 – some which will be scrap metal – but coil by rail (DB Cargo had recently carried some to Wolverhampton steel terminal) did not feature in the survey period. Outwards iron and steel was then 22,000 tonnes.<sup>11</sup>

<sup>11</sup> Informal advice is that 850-900kt of the shipping imports were coil or other steel, with scrap arriving by ship (eg from Ireland) no more than c.50-100kt. A recent outward flow has been stainless steel from Sheffield (Tinsley), for which there are infrequent trains. Outward tonnes will be greater now, as more scrap is coming via Liverpool for processing.

- 40 **Scrap metal flows** which at present are inwards to Liverpool by general cargo shipping, HGV and railway, then, after processing, sold on the spot market for onwards shipping. The market is changing, with more re-processing into higher quality scrap, good for the new blast furnaces at Teesside and Port Talbot, which might head there by ship or rail. (Potentially also in future by rail to new furnaces at Scunthorpe.)
- 41 So it will be the inwards HGVs carrying scrap metal which matter most for future traffic impact, with activity centred on re-processing sites adjoining berths in **Gladstone, Alexandra and Canada Docks**. Scrap metal flows are described later with more detail.
- 42 **Other general cargo tonnes** principally at **Seaforth, Alexandra and Canada Docks**, where HGVs remain the principal transport on the mainland. Even the smaller coastal and short-sea vessels are identified with a load range up to 15,500 tonnes, so require HGVs.
- 43 There was one example during the survey of a 13,000 tonne arrival load being lighteraged off a vessel – the *MV Reggeborg* – avoiding a requirement for about 970 HGV trips. Apart from that, the survey month points to an averaged need for about 200 HGVs per day to service substantial arrivals (risking another 200 moves if there are empty returns). See the table below. There will be similar though fewer requirements in the departure direction. This could point to 400-500 HGV daily one-way trips to service general cargo tonnages. However, some general cargo volume is scrap metal, described later with more detail.

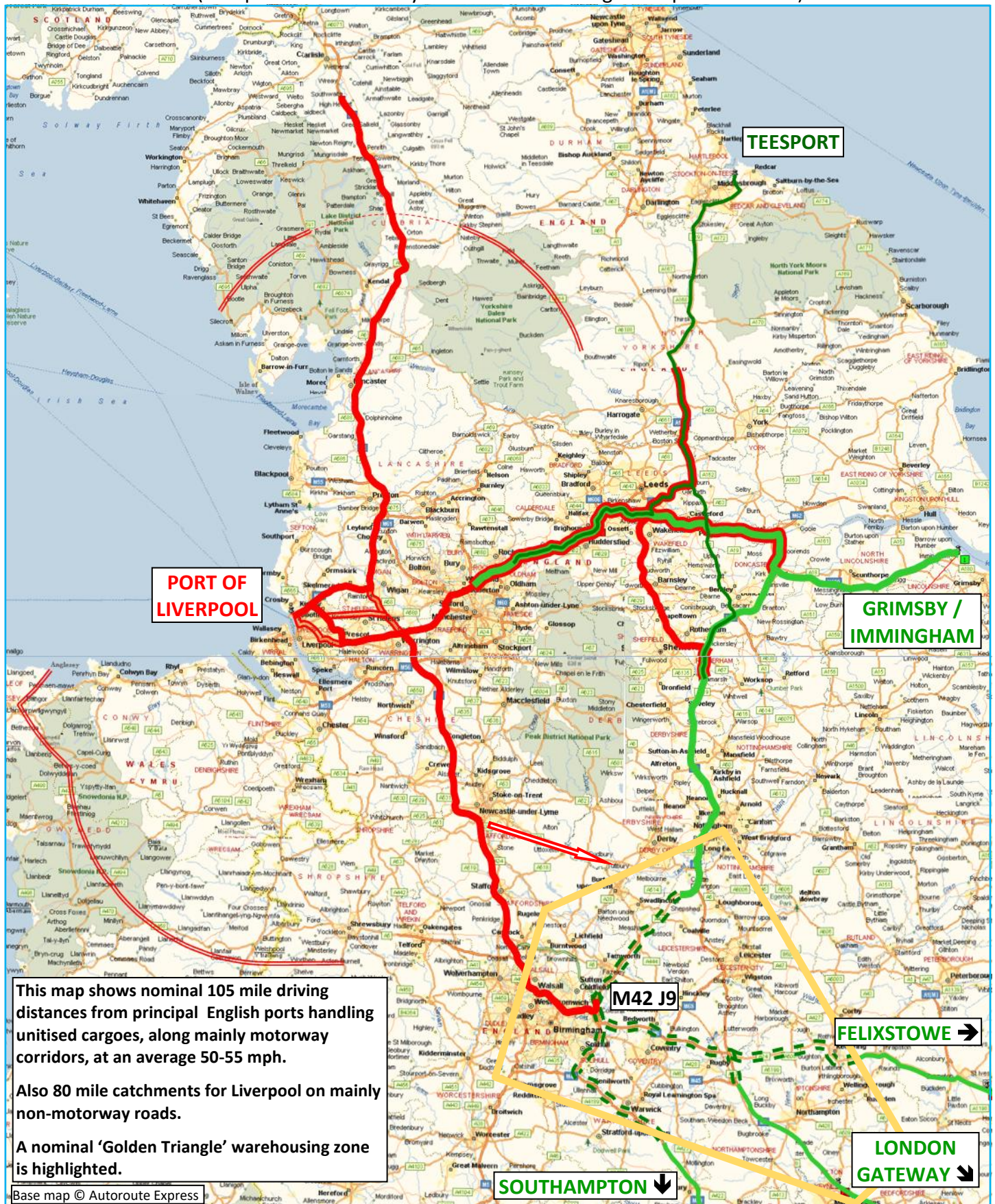
| General cargo estimated <u>unload</u> - load tonnes for each vessel<br>in Royal Seaforth Docks - Canada Docks sector during survey<br><i>Sorted by arrival date/time to give a feel for arrival cargo volumes</i> |           |                               |        |        | Alternative viewpoint is<br>Reggeborg 13,079 tonnes<br>equates to 485 one-way HGV<br>trips at 26-28 tonnes per trip,<br>plus empty return loads,<br>= max total of ~970 HGV trips |           | 7-day ARRIVALS           |            | HGV 1-way max need            |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|--------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------|------------|-------------------------------|--------------|
|                                                                                                                                                                                                                   |           |                               |        |        |                                                                                                                                                                                   |           | so potentially           |            | per day <i>excl Reggeborg</i> |              |
|                                                                                                                                                                                                                   |           |                               |        |        |                                                                                                                                                                                   |           | requires suitable        |            | Arrivals                      | Dep. volume  |
|                                                                                                                                                                                                                   |           |                               |        |        |                                                                                                                                                                                   |           | HGV 7-day capacity       |            | (& later)                     | 2 days prior |
|                                                                                                                                                                                                                   |           |                               |        |        |                                                                                                                                                                                   |           | <i>(excl. Reggeborg)</i> |            | 62                            |              |
|                                                                                                                                                                                                                   |           | Total:                        | 81,806 | 41,311 |                                                                                                                                                                                   |           |                          |            |                               |              |
|                                                                                                                                                                                                                   |           | <i>excl. 13,079 lightered</i> | 68,727 | 41,311 |                                                                                                                                                                                   |           |                          |            |                               |              |
| Dock                                                                                                                                                                                                              | Dates     | Vessel                        | Unload | Load   | This shows using<br>lighters to service<br>Reggeborg made a<br>difference to average<br>HGV requirements,<br>worth an <u>averaged</u><br>250 HGV one-way<br>trips per day         |           | 09/4-15/4                |            |                               | 16           |
| Alexandra                                                                                                                                                                                                         | 10/4-14/4 | BREMEN Cargo                  | 0      | 1,678  |                                                                                                                                                                                   |           | 10/4-16/4                | 24,691     | 0                             | 0            |
| Seaforth                                                                                                                                                                                                          | 12/4-14/4 | FRI BERGEN Cargo              | 5,424  | 433    |                                                                                                                                                                                   |           | 11/4-17/4                | 24,691     | 201                           | 275          |
| Seaforth                                                                                                                                                                                                          | 13/4-17/4 | FINNBORG Cargo                | 13,883 | 0      |                                                                                                                                                                                   |           | 12/4-18/4                | 24,691     | 514                           | 0            |
| Seaforth                                                                                                                                                                                                          | 16/4-18/4 | SEA FALCON Cargo              | 635    | 7,413  |                                                                                                                                                                                   |           | 13/4-19/4                | 26,946     | 24                            | 0            |
| Alexandra                                                                                                                                                                                                         | 16/4-18/4 | LUCKY SEA Cargo               | 2,849  | 0      |                                                                                                                                                                                   |           | 14/4-20/4                | 16,954     | 106                           | 27           |
| Seaforth                                                                                                                                                                                                          | 16/4-17/4 | THESEUS Cargo                 | 266    | 0      |                                                                                                                                                                                   |           | 15/4-21/4                | 16,954     | 10                            | 0            |
| Gladstone                                                                                                                                                                                                         | 16/4-17/4 | CONFORMITY Cargo              | 1,634  | 742    |                                                                                                                                                                                   |           | 16/4-22/4                | 16,954     | 61                            |              |
| Alexandra                                                                                                                                                                                                         | 18/4-06/5 | REGGEBORG Cargo               | 13,079 | 0 →    |                                                                                                                                                                                   |           | 17/4-23/4                | 11,570     |                               |              |
| Alexandra                                                                                                                                                                                                         | 18/4-20/4 | RIX VENTA Cargo               | 595    | 950    |                                                                                                                                                                                   |           | unload                   | load value | value then                    | 18/4-24/4    |
| Alexandra                                                                                                                                                                                                         | 19/4-22/4 | FRI KARMSUND Cargo            | 819    | 2,224  | as lighter                                                                                                                                                                        | adjusted  |                          | 19/4-25/4  | 11,570                        |              |
| Alexandra                                                                                                                                                                                                         | 22/4-23/4 | RIX VENTA Cargo               | 0      | 2,216  | taken at                                                                                                                                                                          | to 94%    |                          | 20/4-26/4  | 3,891                         |              |
| Alexandra                                                                                                                                                                                                         | 23/4-25/4 | FRI KARMSUND Cargo            | 0      | 1,962  | 85% of nom.                                                                                                                                                                       | of output |                          | 21/4-27/4  | 0                             |              |
| Alexandra                                                                                                                                                                                                         | 25/4-27/4 | RIX VENTA Cargo               | 0      | 949    | volume as                                                                                                                                                                         | to match  |                          | 22/4-28/4  | 4,027                         |              |
| Alexandra                                                                                                                                                                                                         | 27/4-30/4 | FRI KARMSUND Cargo            | 819    | 2,878  | new load                                                                                                                                                                          | 13,079    |                          | 23/4-29/4  | 4,027                         | 0            |
| Alexandra                                                                                                                                                                                                         | 29/4-01/5 | RIX VENTA Cargo               | 0      | 1,900  | unsettled                                                                                                                                                                         |           |                          | 24/4-30/4  | 4,027                         | 221          |
| Canada                                                                                                                                                                                                            | 19/4-25/4 | TRADE NAVIGATOR Carg          | 7,679  | 0      |                                                                                                                                                                                   |           |                          | 25/5-01/5  | 4,027                         | 284          |
| Canada                                                                                                                                                                                                            | 20/4-23/4 | GERNIKA NM Cargo              | 850    | 5,956  |                                                                                                                                                                                   |           |                          | 26/4-02/5  | 4,920                         | 31           |
| Canada                                                                                                                                                                                                            | 20/4-22/4 | RIX MARINER Cargo             | 3,041  | 0      |                                                                                                                                                                                   |           |                          | 27/4-03/5  | 4,920                         | 113          |
| Seaforth                                                                                                                                                                                                          | 28/4-30/4 | ANTJE K Cargo                 | 4,027  | 290    |                                                                                                                                                                                   |           |                          | 28/4-04/5  | 10,755                        | 149          |
| Gladstone                                                                                                                                                                                                         | 02/5-02/5 | THEBE Cargo                   | 893    | 748    |                                                                                                                                                                                   |           |                          | 29/4-05/5  | 22,076                        | 33           |
| Seaforth                                                                                                                                                                                                          | 04/5-27/5 | SAGA FORTUNE Cargo            | 5,835  | 0      |                                                                                                                                                                                   |           |                          | 30/4-06/5  | 22,076                        | 216          |
| Canada                                                                                                                                                                                                            | 05/5-07/5 | HAMMER Cargo                  | 3,188  | 0      |                                                                                                                                                                                   |           |                          | 01/5-07/5  | 22,591                        | 118          |
| Canada                                                                                                                                                                                                            | 05/5-12/5 | CLIPPER CLYDE Bulk            | 12,160 | 0      | [Not in bulk cargo list]                                                                                                                                                          |           |                          | 02/5-08/5  | 28,439                        | 450          |
| Canada                                                                                                                                                                                                            | 06/5-08/5 | WILSON PALDISKI Carg          | 0      | 4,659  |                                                                                                                                                                                   |           |                          | 03/5-09/5  | 27,546                        | 0            |
| Seaforth                                                                                                                                                                                                          | 07/5-07/5 | CLI PRIDE Cargo               | 515    | 515    |                                                                                                                                                                                   |           |                          | 04/5-10/5  | 27,546                        | 19           |
| Canada                                                                                                                                                                                                            | 08/5-18/5 | ADNAN N Cargo                 | 5,324  | 0      |                                                                                                                                                                                   |           |                          | 05/5-11/5  | 18,523                        | 197          |
| Alexandra                                                                                                                                                                                                         | 08/5-10/5 | ELENA L Cargo                 | 524    | 4,020  |                                                                                                                                                                                   |           |                          | 06/5-12/5  | 6,363                         | 19           |
| Alexandra                                                                                                                                                                                                         | 08/5-09/5 | VIKINGBANK Cargo              | 0      | 7,247  |                                                                                                                                                                                   |           |                          | 07/5-13/5  | 6,363                         | 0            |
| Alexandra                                                                                                                                                                                                         | 09/5-11/5 | FRISIANA Cargo                | 0      | 7,610  |                                                                                                                                                                                   |           |                          | 08/5-14/5  | 0                             | 0            |

Vessel (un)loads in red are partly outside the survey period so only a proportion of tonnage is shown.

## Where Liverpool's HGVs can serve most easily

- 44 Excepting bulk fuel and oil/chemical products, Liverpool's main throughput is unitised freight and bulk cargo. If journeys are mainly on motorways, allowing for congestion etc a 50-55 mph HGV average speed suggests a practical distance of ~105 miles in a 2-2½ hour driving period. This offers good HGV access from Liverpool as far as Cumbria, Yorkshire, and the West Midlands, and to close-by East Midlands cities via the Stoke-Derby corridor. On mainly non-motorway roads, average HGV speeds can be 40 mph or lower, with much of North and Mid-Wales within an 80-mile radius. See the (red) road corridors and zones on the following map.
- 45 There is overlap with other major port catchments, particularly from Teesport and from Grimsby/Immingham, within urban and industrial Yorkshire and as close as Manchester. The map shows equivalent ~105 mile, mainly motorway catchments based on those ports. A nominal half-way driving distance is south of Leeds. The other principal 'contestable' catchment is the 'Golden Triangle' of warehousing, just beyond an easy drive, as shown by distances measuring 105 miles from all major English ports handling large unitised flows.
- 46 To provide comparisons for that, the quickest routes are shown to M42 J9 (between the M6 and Tamworth) in the heart of the Midlands, where the additional road mileage over 105 miles is evident as the eastern and southern ports have a distance gap to reach M42 J9.
- 47 The Port of Liverpool ought to score well for road access to the 'Golden Triangle', but it loses out with HGVs having to get past the congested Birmingham area, particularly as most HGVs avoid paying for the less busy M6 Toll road and put up with the costs of delays on the M6 urban viaduct corridor.
- 48 There is also the additional sea journey round Southern England to Liverpool from the major deep-sea container ports in the English Channel and the North Sea, so much unitised cargo uses those ports instead.
- 49 This limits use of other transport distribution from Liverpool, as extra handling costs such as further distribution are not wanted unless there are commensurate benefits, such as land utilisation gains and/or operational savings.

**HGV 2-2½ hour motorway catchments from major unitised ports, with average 50-55 mph**  
(Liverpool non-motorway catchments at average 40 mph also shown)



## Other transport options at the port

50 Principal supplementary transport options are:

### **(A) Use of further shipping and inland waterways, via cargo trans-shipment.**

- 51 Liverpool has the use of the Manchester Ship Canal, and a few 'small-gauge' inland waterways such as the Leeds & Liverpool (largely now for recreational use not commercial). Importantly, it has ability to handle coastal and cross-Irish Sea cargo transfer using the many small general cargo and specialised vessels which operate mostly out of other North Channel, Irish Sea and Celtic Sea ports.
- 52 Ship-to-ship transfer can be from larger to smaller vessels to reach ports or wharves not accessible to larger ships, or v.v. with 'feeder' vessels transferring cargoes to larger ones for a trans-ocean journey. There is also an option of using Liverpool as a container 'bus station', with some containers unloaded from one vessel and then queuing for another 'bus service' onwards.

### **(B) Rail freight services to deliver bulk and unitised freight to the Port and dockside industries, and to haul bulk and unitised flows away.**

- 53 Liverpool has retained direct rail access to its higher volume Docks from the electrified railway near Edge Hill. From a triangular junction, a 5½ mile diesel-operated line (the 'Bootle Branch') has a 20 mph speed limit, and includes 1½ miles of steep gradients. It



reaches the Port just north of Brocklebank Dock. The route is shown in the map on page 9. The photo shows a Drax biomass train pulling away alongside Brocklebank Dock.  
© J.Foulger

- 54 Investment to upgrade the Bootle Branch was made during the previous decade, for the new biomass rail flows. The extent of its usage is discussed below. A diagrammatic plan of the Bootle Branch is available separately, and is from the National Rail Sectional Appendix. Rail loading and unloading is used (south to north) at:

- Alexandra Dock (metals)
- Gladstone Dock (bulk biomass for Drax power station)
- Royal Seaforth Docks (rail container terminal).

The extent of this activity is discussed in the next section.

## Use of other transport options, particularly in the survey period

### (A) Ship-to-ship transfer

- 55 With its multiple Docks and berths, Liverpool provides a convenient ship-to-ship transfer location. There can be **lighterage** to/from canal-side wharves and **feeder vessels** to/from other ports. **Container trans-shipment** is also possible via the dockside. Specific one-off cargoes can be handled with vessels side-by-side at the same Dock or wharf, or ,if there are repeat sailings and cargoes, commodities can be handled via wharves.
- 56 **Lighterage** is reviewed first. There was an example during the survey period.
- *MV Reggeborg* (cargo vessel) arrived on 18 April from Ceuta (Spain/North Africa) 59% loaded so carrying about 13,100 tonnes of dry bulk. It left empty for Dunkirk on May 6. While in Liverpool it was moved within Alexandra Dock [JRC berth no.21 then no.22]. This helped other vessels which Reggeborg unloaded into during the period (*MV Rix Venta*, *MV Fri Karlsund*), which shuttled to and from Ellesmere Port and Runcorn on the Ship Canal. **Reggeborg's arrival load and the others' departure loads at Alexandra Dock should be discounted from HGV traffic estimates.** In this instance, an estimated 970 HGV movements of lorries was avoided, including return moves.
- 57 **Feeder sailings** - There are specific areas in Liverpool Docks used for arrival of scrap metal by ship from other UK coastal ports and Ireland. This is re-processed at **EMR's** and **Norton's** dockside recycling plants, before subsequent export for use abroad. These dock areas are in Gladstone Dock branch no.1 (JRC berth no. 19), Alexandra Dock branch no.2 (JRC 24, 25), and Canada Dock branches no. 2 and 3 (JRC 36, also potentially at 34 and 35).
- 58 A trial estimate was made for scrap metal export by ship, initially based on all departures from selected berths with loaded cargo during the month. However this appeared excessive, as it required 75,000 tonnes of scrap arriving by regional HGV movements in the survey month as well as 21,000 by ship and 35,000 by rail, to made up the export flow.
- 59 Closer examination of the general cargo destinations served by these vessels pointed towards more likely scrap export of 108,000 tonnes, which meant about 52,000 tonnes arriving by HGV in the month. Even if not scrap, a gross export of 108,000 tonnes meant that HGVs were responsible for 52,000 tonnes, unless dockside industries were a source.
- 60 **This will be an additional HGV flow into the Port.** If it is not scrap metal, it still counts as additional HGVs. The table overleaf shows use of the main scrap metal berths during the survey period, and the estimations.

| Vessels at Port of Liverpool scrap metal berths                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |               |              |               |            | 21,237 | 131,267 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|--------------|---------------|------------|--------|---------|
| Vessels listed by departure sequence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   |               |              |               |            | Tonnes | Tonnes  |
| Berth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Vessel            | Arr           | From         | Dep           | To         | Unload | Load    |
| General cargo vessels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |               |              |               |            |        |         |
| A24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BREMEN Cargo      | Apr 10, 01:58 | Ellesmere Pt | Apr 14, 15:47 | Bilbao     | 0      | 1,678   |
| G19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CONFORMITY Cargo  | Apr 16, 22:56 | Dundalk      | Apr 17, 21:31 | Avonmouth  | 1,634  | 742     |
| C36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RIX MARINER Cargo | Apr 20, 09:20 | Cork, N.Ross | Apr 22, 14:45 | Bayonne    | 3,041  | 0       |
| G19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | THEBE Cargo       | May 2, 03:11  | Dundalk      | May 2, 17:59  | Belfast    | 1,219  | 422     |
| A24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | VIKINGBANK Cargo  | May 8, 23:33  | Greenore     | May 9, 14:10  | Rouen      | 0      | 7,247   |
| A24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | FRISIANA Cargo    | May 9, 14:55  | Warrenpoint  | May 11, 14:20 | Morocco    | 0      | 7,610   |
| Bulk or large scale cargo vessels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |               |              |               |            |        |         |
| G19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ELENA Bulk        | Apr 20, 20:52 | Rotterdam    | Apr 24, 03:44 | Morocco    | 2,899  | 16,237  |
| G19/A24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | LOWLANDS SUN Bulk | Apr 17, 07:17 | Iceland      | Apr 29, 21:20 | Turkey     | 0      | 42,464  |
| A24/G19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CLIPPER IRIS Bulk | May 3, 10:57  | Glasgow      | May 7, 01:13  | Malta      | 6,238  | 28,074  |
| A24/G19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | TRANSARCTIC Cargo | May 5, 20:33  | Waterford    | May 9, 14:22  | Morocco    | 6,206  | 20,947  |
| C36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | REX Bulk          | May 10, 03:38 | Dunkirk      | May 16, 20:55 | Alexandria | 0      | 5,846   |
| Possible inwards scrap by shipping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |               |              |               |            | 21,237 |         |
| Inwards scrap by rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                   |               |              |               |            | 34,898 |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |               |              |               |            | 56,135 |         |
| Possible outwards scrap by shipping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |               |              |               |            |        | 131,267 |
| Difference in scrap inwards / outwards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |               |              |               |            |        | 75,132  |
| Is it credible that 75,000 tonnes of scrap came by road to Port of Liverpool in one month, from the entire NW catchment, when aggregated scrap by ship and rail was only 56,000 tonnes? Set against that, the general cargo destinations for scrap at Bilbao, Rouen and Morocco are credible, while there were specific multi-scrap berth moves by 3 bulk vessels (Lowlands Sun, Clipper Iris and Transarctic). So that, even if not all scrap, export of 108,000 tonnes of materials is plausible. This implies ~52,000 tonnes by HGV in the month, unless dockside industries were partly the source. |                   |               |              |               |            |        |         |

- 61 **Containers:** An analysis of the container throughput at Liverpool 2 and Seaforth Docks during the survey period shows an estimated 19,400 TEUs off and on MSC vessels, 9,300 ACL, 7,800 CGA-CGM (and their hired vessels), and 16,100 off/on all other container ships. MSC, ACL and CGA-CGM are shipping operators who largely offer an integrated service with container transfers centred on the large European-scale ports. Consequently the main scope for ship-to-ship container transfers at Liverpool is among the other operators, if they wish to transfer containers regionally.
- 62 If for example a 5% or 10% share of containers were transferable (a larger flow could merit some specific sailings), this points to container transfer amounting to only 2.4 -4.8% of total Twenty-Foot Equivalent Units (TEU) throughput at Liverpool. **This nominal transfer estimate has been excluded from subsequent HGV calculations, as being within an overall margin of error for total HGV flows.** There remains a possibility of small transfers.

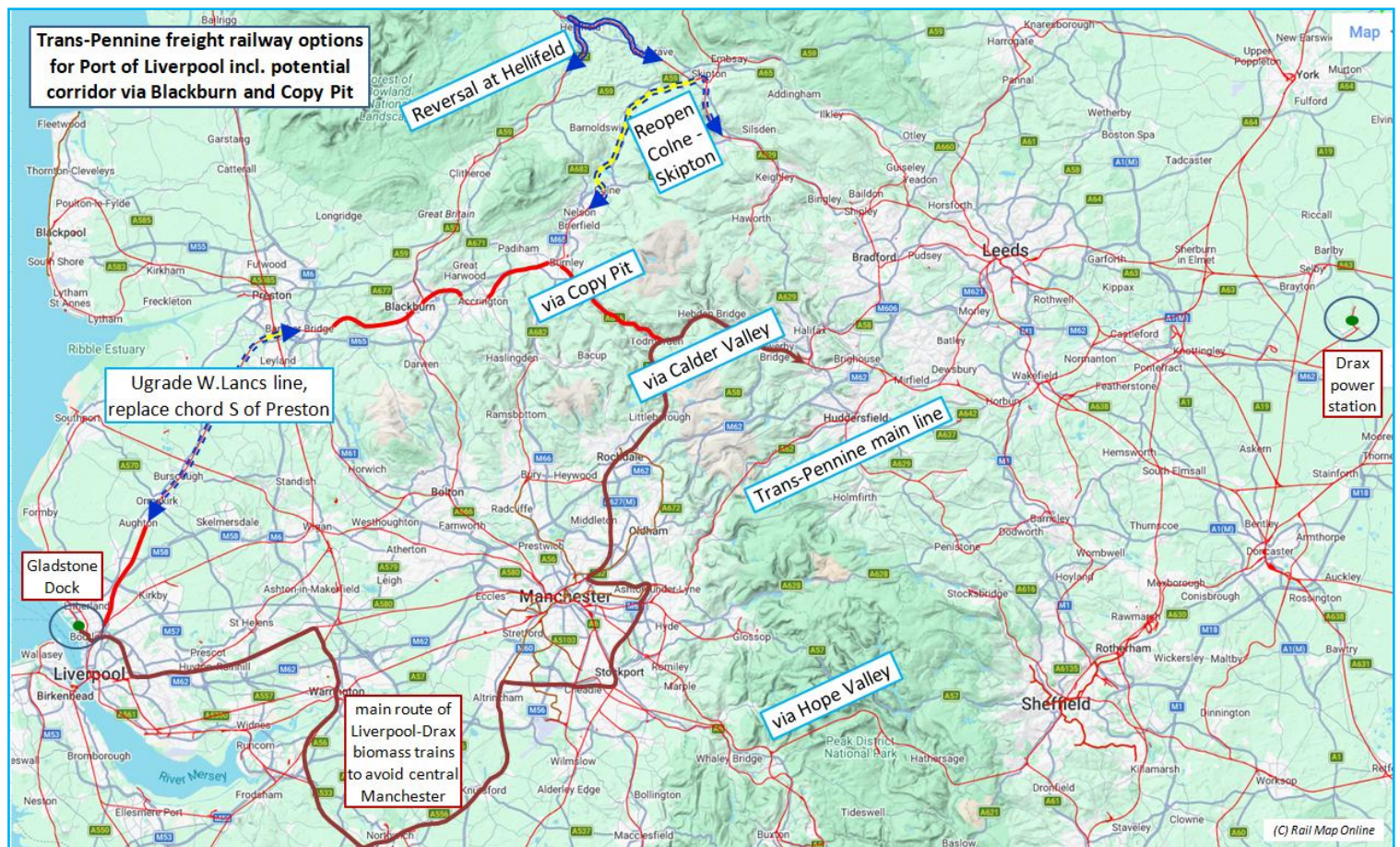
## (B) Rail freight services.

- 63 There is a useful blog about the history of rail at the Port of Liverpool, set out in the link below, including the decline and rebirth of rail freight flows<sup>12</sup>. It contains a detailed map of former rail links to the Port.

<sup>12</sup> [Rail Reinvention in Liverpool Part 2: Seaforth Container Terminal Branch - National Railway Museum blog](#)

64 Train services are recorded in real time, with a online subscription database accessible for over one year of past data. JRC chose *Real-time Trains* as its rail data source. Timetables for rail freight allow variations to achieve convenient freight arrival and departure slots, practical working hours at industries and ports, and allow some flex even on busy passenger railways – e.g. there are protected slots once or twice an hour on many main lines. Complexities such as different top and average speeds, acceleration and braking rates, and longer occupation of junctions with longer trains, must all be built in.

65 A current area rail map is shown below, from *Rail Map Online*, overlaid with other details. It highlights the principal, roundabout route for biomass from the Port of Liverpool to Drax power station in Yorkshire. Returning empty trains can have quicker routes. Other options for Trans-Pennine freight trains are shown if Manchester continues to be a capacity block.



## Metal by rail

66 Flows of scrap metal by ship are discussed above, also shipment in of new steel coils where rail has a small distribution share. The **rail freight contribution for scrap metal** is inwards flows to the Liverpool dockside recycling plants, then for export. During the survey period, train paths were scheduled daily on weekdays from Attercliffe (Sheffield, South Yorkshire), Kingsbury (West Midlands, heavy cut grades from demolition or redundant railway vehicles), Saltley (Birmingham, fragmented scrap from shredding cars etc) and Swindon (South Central/West)). In reality, few timetable slots were used during the survey, usually once a day from just one origin. The 45 mph limit for some trains is a deterrent.

67 The Swindon site provided no trains during the survey period, though it was accumulating scrap metal as a train left shortly after the last survey date. The busiest origin site was Saltley in the heart of Birmingham, with nearly 20,400 tonnes during the period (based on assumptions about wagon capacities and economic train loads). Other sites generated 8,600 tonnes (Attercliffe) and 5,900 tonnes (Kingsbury).

68 Overall, the roundly 35,000 tonnes of scrap brought by rail to the Port of Liverpool on 24 trains (with several others on the margins) will have avoided around 1,300 HGV entry journeys during the survey month if well loaded, 2,600 if with empty return trips. On an equivalent basis during a full year, and counting only an 11½ month operating period, rail saves nearly 30,000 HGV trips. A table setting out the rail scrap flows is set out below.

| Scrap metal flows by rail to Port of Liverpool, 12/4 - 12/5/2026 |        |       |                            |           |         | Arr.date | & time                                                         | from:                      |                     |           |         |         |
|------------------------------------------------------------------|--------|-------|----------------------------|-----------|---------|----------|----------------------------------------------------------------|----------------------------|---------------------|-----------|---------|---------|
| Arr.date                                                         | & time | from: | Attercliffe                | Kingsbury | Saltley | Swindon  |                                                                |                            | Attercliffe         | Kingsbury | Saltley | Swindon |
|                                                                  |        |       | Wagon length on each train |           |         |          |                                                                | Wagon length on each train |                     |           |         |         |
|                                                                  |        |       |                            |           |         |          | 28/04/2026                                                     | 21:40                      |                     |           | 20      |         |
| 10/04/2026                                                       | 03:24  | 21    | too early for survey       |           |         |          | 29/04/2026                                                     | 21:49                      |                     |           | 22      |         |
| 12/04/2026                                                       | 19:52  |       |                            |           | 22      |          | 30/04/2026                                                     | 02:20                      | 20                  |           |         |         |
| 13/04/2026                                                       | 23:56  |       |                            | 21        |         |          | 01/05/2026                                                     | 03:11                      | 22                  |           |         |         |
| 14/04/2026                                                       | 21:59  |       |                            |           | 22      |          | 05/05/2026                                                     | 21:37                      |                     |           | 22      |         |
| 15/04/2026                                                       | 22:38  |       |                            |           | 21      |          | 06/05/2026                                                     | 22:03                      |                     |           | 22      |         |
| 16/04/2026                                                       | 23:38  |       |                            | 22        |         |          | 07/05/2026                                                     | 23:19                      |                     | 22        |         |         |
| 17/04/2026                                                       | 03:05  | 21    |                            |           |         |          | 08/05/2026                                                     | 02:04                      | 22                  |           |         |         |
| 19/04/2026                                                       | 19:59  |       |                            |           | 22      |          | 10/05/2026                                                     | 22:46                      |                     |           | 22      |         |
| 20/04/2026                                                       | 21:54  |       |                            |           | 21      |          | 11/05/2026                                                     | 21:55                      |                     |           | 22      |         |
| 21/04/2026                                                       | 22:12  |       |                            |           | 22      |          | 12/05/2026                                                     | 22:00                      | too late for survey |           | 22      |         |
| 22/04/2026                                                       | 02:22  | 21    |                            |           |         |          | 13/05/2026                                                     | 05:12                      | too late for survey |           |         | 22      |
| 23/04/2026                                                       | 23:54  |       |                            | 22        |         |          | Total loaded rail wagons arriving during survey period         |                            |                     |           |         |         |
| 24/04/2026                                                       | 03:23  | 22    |                            |           |         |          | TOTAL:                                                         | 517                        | 128                 | 87        | 302     | 0       |
| 26/04/2026                                                       | 20:41  |       |                            |           | 20      |          | Effective payload (tonnes) at 90% load factor, 75 tonnes/wagon |                            |                     |           |         |         |
| 27/04/2026                                                       | 22:03  |       |                            |           | 22      |          | TOTAL:                                                         | 34,898                     | 8,640               | 5,873     | 20,385  | 0       |

69 Scrap metals flows are subject to change with the new electric arc furnaces now being established at Port Talbot and Teesside, and in future at Scunthorpe. Inwards shipping flows might then go direct to nearby ports if the scrap is of adequate quality.

70 However Liverpool scrap companies have a reputation for high quality needed by the new furnaces. So it is possible that flows will continue via Liverpool – certainly much NW regional scrap will continue to arrive by HGV, as might the rail flows. It is also possible that rail will provide some or all haulage from Liverpool, after recycling, to the new furnaces – this depends on the relative economics of next-trip re-use of shipping or rail wagon capacity. Such onwards operations should not create further regional HGV mileage.

## Bulk biomass by rail

71 **Bulk biomass** has been passing through the Port of Liverpool since the 2010s. The Government as part of its decarbonisation priorities sanctioned the partial conversion of Drax power station in Yorkshire, near Selby, from coal firing to biomass pellets, during 2013-2016 (the rest of Drax was retired by 2021). These are imported from many sources, by ship to ports such as Hull, Immingham, Teesside, Tyneside as well as Liverpool.

72 Liverpool handles all flows from the American continent, through Gladstone Dock, where there was a £100 million investment during the same period in a new biomass terminal,

- 73 for import, storage, transfer and loading onto freight trains for the Trans-Pennine rail journey to Drax. A triangular junction was restored at Edge Hill for the Bootle Branch, to permit direct operation eastwards towards Drax via various routes.

| Biomass flows by rail from Port of Liverpool, 12/4 - 12/5/2026 |            |                                    |        |                    |           |            |        |        |  |                                      |            |        |        |  |  |
|----------------------------------------------------------------|------------|------------------------------------|--------|--------------------|-----------|------------|--------|--------|--|--------------------------------------|------------|--------|--------|--|--|
| Dep.date & time                                                |            |                                    |        |                    |           |            |        |        |  |                                      |            |        |        |  |  |
| from: Liverpool Biomass Terminal                               |            |                                    |        |                    |           |            |        |        |  |                                      |            |        |        |  |  |
| Day                                                            |            |                                    | Wagons | too early to count | Day       | Dep.date   | & time | Wagons |  | Day                                  | Dep.date   | & time | Wagons |  |  |
| Sat                                                            | 11/04/2026 | 11:43                              | 25     |                    | Mon (ctd) | 27/04/2026 | 22:06  | 23     |  | Wed (ctd)                            | 06/05/2026 | 16:32  | 23     |  |  |
| Sun                                                            | 12/04/2026 | no train, ? rail wkend engineering |        |                    | Tue       | 28/04/2026 | 01:01  | 25     |  |                                      | 06/05/2026 | 20:46  | 25     |  |  |
| Mon                                                            | 13/04/2026 | 21:01                              | 25     | few trains,        |           | 28/04/2026 | 07:26  | 25     |  |                                      | 06/05/2026 | 23:00  | 24     |  |  |
| Tue                                                            | 14/04/2026 | 22:28                              | 25     | maybe              |           | 28/04/2026 | 11:00  | 25     |  | Thu                                  | 07/05/2026 | 01:48  | 25     |  |  |
| Wed                                                            | 15/04/2026 | 21:50                              | 25     | Drax down          |           | 28/04/2026 | 15:55  | 25     |  |                                      | 07/05/2026 | 06:50  | 23     |  |  |
| Thu                                                            | 16/04/2026 | 08:01                              | 25     | time in part       |           | 28/04/2026 | 19:12  | 23     |  |                                      | 07/05/2026 | 10:20  | 25     |  |  |
|                                                                | 16/04/2026 | 21:42                              | 25     | of April ?         | Wed       | 29/04/2026 | 01:19  | 25     |  |                                      | 07/05/2026 | 15:39  | 25     |  |  |
| Fri                                                            | 17/04/2026 | 01:07                              | 24     |                    |           | 29/04/2026 | 07:05  | 25     |  |                                      | 07/05/2026 | 18:49  | 24     |  |  |
|                                                                | 17/04/2026 | 09:10                              | 23     |                    |           | 29/04/2026 | 10:03  | 23     |  |                                      | 07/05/2026 | 21:37  | 23     |  |  |
|                                                                | 17/04/2026 | 21:39                              | 23     |                    |           | 29/04/2026 | 16:18  | 25     |  | Fri                                  | 08/05/2026 | 01:37  | 25     |  |  |
| Sat                                                            | 18/04/2026 | 10:37                              | 23     |                    |           | 29/04/2026 | 19:12  | 24     |  |                                      | 08/05/2026 | 06:43  | 25     |  |  |
|                                                                | 18/04/2026 | 14:51                              | 25     |                    | Thu       | 30/04/2026 | 11:14  | 24     |  |                                      | 08/05/2026 | 10:15  | 24     |  |  |
| Sun                                                            | 19/04/2026 | 12:33                              | 24     |                    |           | 30/04/2026 | 15:58  | 23     |  |                                      | 08/05/2026 | 16:00  | 25     |  |  |
|                                                                | 19/04/2026 | 16:36                              | 25     |                    |           | 30/04/2026 | 19:01  | 25     |  |                                      | 08/05/2026 | 19:03  | 22     |  |  |
|                                                                | 19/04/2026 | 19:15                              | 25     |                    |           | 30/04/2026 | 22:06  | 25     |  |                                      | 08/05/2026 | 21:58  | 25     |  |  |
|                                                                | 19/04/2026 | 21:50                              | 25     |                    | Fri       | 01/05/2026 | 01:16  | 24     |  | Sat                                  | 09/05/2026 | 01:15  | 24     |  |  |
| Mon                                                            | 20/04/2026 | 01:50                              | 24     |                    |           | 01/05/2026 | 08:40  | 23     |  |                                      | 09/05/2026 | 07:10  | 25     |  |  |
|                                                                | 20/04/2026 | 07:42                              | 23     |                    |           | 01/05/2026 | 11:15  | 25     |  |                                      | 09/05/2026 | 09:30  | 22     |  |  |
| Tue                                                            | 21/04/2026 | 00:15                              | 25     |                    |           | 01/05/2026 | 16:05  | 24     |  |                                      | 09/05/2026 | 12:08  | 25     |  |  |
|                                                                | 21/04/2026 | 07:35                              | 25     |                    |           | 01/05/2026 | 19:10  | 25     |  |                                      | 09/05/2026 | 14:49  | 24     |  |  |
|                                                                | 21/04/2026 | 22:42                              | 25     |                    |           | 01/05/2026 | 21:45  | 25     |  | Sun                                  | 10/05/2026 | 11:00  | 25     |  |  |
| Wed                                                            | 22/04/2026 | 08:47                              | 25     |                    | Sat       | 02/05/2026 | 09:15  | 25     |  |                                      | 10/05/2026 | 20:55  | 22     |  |  |
|                                                                | 22/04/2026 | 21:55                              | 25     |                    |           | 02/05/2026 | 11:54  | 24     |  | Mon                                  | 11/05/2026 | 01:20  | 25     |  |  |
| Thu                                                            | 23/04/2026 | 01:08                              | 23     |                    |           | 02/05/2026 | 15:21  | 25     |  |                                      | 11/05/2026 | 07:15  | 24     |  |  |
|                                                                | 23/04/2026 | 07:51                              | 25     |                    | Sun       | 03/05/2026 | 11:57  | 25     |  |                                      | 11/05/2026 | 09:34  | 25     |  |  |
| Fri                                                            | 24/04/2026 | 01:06                              | 25     |                    |           | 03/05/2026 | 16:05  | 25     |  |                                      | 11/05/2026 | 16:10  | 25     |  |  |
| Sat                                                            | 25/04/2026 | 01:22                              | 25     |                    |           | 03/05/2026 | 19:06  | 24     |  |                                      | 11/05/2026 | 19:05  | 23     |  |  |
|                                                                | 25/04/2026 | 07:35                              | 23     |                    | Mon       | 04/05/2026 | 01:49  | 25     |  |                                      | 11/05/2026 | 22:20  | 24     |  |  |
|                                                                | 25/04/2026 | 09:57                              | 25     |                    |           | 04/05/2026 | 07:13  | 25     |  | Tue                                  | 12/05/2026 | 01:38  | 25     |  |  |
|                                                                | 25/04/2026 | 12:12                              | 25     |                    |           | 04/05/2026 | 11:00  | 24     |  |                                      | 12/05/2026 | 08:00  | 25     |  |  |
|                                                                | 25/04/2026 | 15:14                              | 25     |                    |           | 04/05/2026 | 16:58  | 25     |  |                                      | 12/05/2026 | 16:15  | 25     |  |  |
| Sun                                                            | 26/04/2026 | 16:11                              | 23     |                    |           | 04/05/2026 | 21:58  | 25     |  |                                      | 12/05/2026 | 19:04  | 24     |  |  |
|                                                                | 26/04/2026 | 19:15                              | 25     |                    | Tue       | 05/05/2026 | 01:35  | 24     |  |                                      | 12/05/2026 | 21:50  | 25     |  |  |
|                                                                | 26/04/2026 | 21:20                              | 25     |                    |           | 05/05/2026 | 07:08  | 25     |  | Wed                                  | 13/05/2026 | 01:38  | 23     |  |  |
| Mon                                                            | 27/04/2026 | 01:07                              | 25     |                    |           | 05/05/2026 | 11:00  | 25     |  | mostly loaded during 12/4 so counted |            |        |        |  |  |
|                                                                | 27/04/2026 | 06:13                              | 23     |                    |           | 05/05/2026 | 16:11  | 24     |  | too                                  | 13/05/2026 | 08:35  | 24     |  |  |
|                                                                | 27/04/2026 | 10:25                              | 25     |                    |           | 05/05/2026 | 21:44  | 25     |  | late                                 | 13/05/2026 | 10:59  | 25     |  |  |
|                                                                | 27/04/2026 | 15:46                              | 25     |                    | Wed       | 06/05/2026 | 01:53  | 23     |  | to be                                | 13/05/2026 | 16:16  | 23     |  |  |
|                                                                | 27/04/2026 | 19:03                              | 25     |                    |           | 06/05/2026 | 11:00  | 25     |  | counted                              | 13/05/2026 | 19:05  | 25     |  |  |
| Total loaded rail wagons during survey period                  |            |                                    |        |                    |           |            |        |        |  |                                      |            |        |        |  |  |
| TOTAL:                                                         |            | 2683                               | 906    |                    |           |            | 954    |        |  |                                      |            |        | 823    |  |  |
| Effective payload (tonnes) at 90% load factor, 75 tonnes/wagon |            |                                    |        |                    |           |            |        |        |  |                                      |            |        |        |  |  |
| TOTAL:                                                         |            | 181,103                            | 61,155 |                    |           |            | 64,395 |        |  |                                      |            |        | 55,553 |  |  |

- 74 Present Government policies are to reduce the subsidies paid for biomass use, and to reduce the 'fuel miles' incurred by biomass imports from other countries. So what had been a busy shipping flow across the Atlantic and rail flow across the Pennines has diminished from 4-5 trains per day, weekdays, during 2025, and now averages 3½ trains per day (based on the survey month). There is a reduced service around weekends when electricity consumption is lower. Rail biomass flows reduce the inbound bulk cargo volume which would otherwise count as HGV trips incurred for UK inland distribution.
- 75 The survey month saw over 180,000 tonnes of rail-hauled biomass to Drax, in 110 trains. Annualised at 11½ months, this is nearly 2.1 million tonnes of biomass. At 26-28 payload tonnes per HGV, this would be an annual 150,000 HGV trips including empty inbound journeys, or an extra 440 HGVs a day. This can be compared to the survey average of 7 single-leg train trips a day (3½ loaded outbound).

## Containers by rail

- 76 Ownership and marketing of rail container services has changed recently. The classic '*Freightliner*' brand has been acquired by shipping and container operator CGA-CGM. The rail-based Intermodal Logistics business including other unitised services is now branded as '*Heavy Haul Rail*'.
- 77 Seaforth has an on-site container rail terminal at the north end of the Dock. It is open to all rail operators. There is another container terminal nearby (but the far side of Liverpool) at Garston, marketed as *Freightliner Liverpool*, which is well used by the nearby car industry. 30 miles from Seaforth there is *Freightliner Manchester* (Trafford Park), which "handles approximately 20 daily Freightliner services to and from the UK's deep sea ports" according to their marketing – so not to and from Liverpool!
- 78 As already noted, many containers via the Port of Liverpool pass through a European deep-sea distribution centre such as London Gateway, Antwerp or Rotterdam, or travel on a vessel which is part of an integrated international group such as ACL, CGA-CGM or MSC.
- 79 Those integrated operations have less need for a further level of onwards rail distribution via Liverpool, while the rail map on p.20 highlights that some outwards rail services from Liverpool face routeing and capacity problems. There is a specific opportunity with ACL and MSC North American services, for two feeder rail flows via Liverpool: from the West Midlands/'Golden Triangle', and from Yorkshire once the Trans-Pennine Route upgrade is completed past Manchester (or via alternative routes if that element is delayed).
- 80 It is just possible that there is some local trans-shipment by HGV between Seaforth Dock and the *Freightliner* terminals at Manchester or Liverpool, however the volume will be low. The scope for such transfer is with cross-Irish Sea flows, with some potential for direct container transfer between *Freightliner Manchester* and the Ship Canal alongside (owned by Peel), or between *Freightliner Liverpool* and adjoining Garston Dock (owned by ABP).
- 81 The strongest rail container corridors for the Port of Liverpool will be to terminals beyond the equivalent range of other ports, and particularly allied to Trans-Atlantic flows. Scotland, Birmingham and southwards, the East Midlands and the 'Golden Triangle' will be good rail commercial opportunities, if rail services can overcome bottlenecks passing Manchester and on the West Coast Main Line. From trunk ACL and MSC vessels, new Trans-Pennine services could easily reach Yorkshire easily, with distribution timings competitive with the M62. Equivalent westbound flows might come via Immingham.
- 82 There is a 'But' – the time incurred on the non-electrified Bootle (docks) Branch, and its junctions near Edge Hill. It is diesel-operated, and an extra loco is often needed for the branch gradients and must be attached or detached, along with possible train reversal, and then await a main line slot. It is often 1½ hours after leaving Seaforth before a train is on the WCML, via Earlestown. An HGV could be passing Crewe by then on the M6, having left the Port and reached Switch Island and the motorway network in under 15 minutes! Rail freight via the Trans-Pennine main line is currently unattractive – as discussed above – and no upgrade has yet been authorised west of Stalybridge via Manchester.

- 83 For containers which have already spent weeks in ships, this time loss matters less in competitiveness than it appears. However it inhibits the range of destinations capable of being served efficiently in a 24-hour railway operational cycle, or achieving three cycles every 48 hours when better asset utilisation can help freight economics. So the present arrangements on the Bootle Branch are less of a hindrance for existing customers, and more a hindrance for rail economics and service development, and for promotion of the Port and its economic hinterland.
- 84 The further disincentive of using an inter-regional container service from Seaforth is the shortness of available container train length at the Seaforth terminal sidings, which prevents more economical train loads. The sidings are limited to 22 x 40' containers in length (nominally 44 TEUs), amounting to about 600 metres with intervals between containers. Another 6-7 x 40' containers (12-14 TEUs) would be possible if the sidings were revised to accommodate the current planning norm of a 775m train.
- 85 With this preamble it can be understood why rail container services from a Port of Liverpool on-site terminal do not attract much volume. It is a combination of:
- International container origins/destinations and en-route shipping interchanges lessening the need for supplementary distribution within the UK.
  - A weakened UK economy with lower commercial volumes outbound from Britain, which limit two-way container loads.
  - Effective HGV inland distribution distances within 3 hours' port access (see the road map on p.16).
  - Poor rail end-to-end timing offer because of rail network constraints – where it is desirable to have efficient round-trip times and ideally a further single (if not return) leg to maximise use of rail assets during 24 hour cycles.
  - Other limitations on rail freight haulage including short container train length, and double-heading on the Bootle Branch. Electrification or more powerful single locos would avoid the need for double-heading.
- 86 The Seaforth rail container service timetable during the survey period gave the scheduled potential of daily trains to and from Mossend (Scotland), Hams Hall (West Midlands), Tilbury (London & South East) and Dollands Moor (Channel Tunnel). However the only trains run were to/from Scotland, with containers about 3 times a week for the export whisky trade, particularly for North America and China.
- 87 The 25 Scottish container trains which operated during the survey month were also limited in their payload because of the WCML route gradients and the lack of electric haulage which limited the trailing loads. They are estimated to have carried approximately 38 TEUs per train, with 13 trains northbound and 12 southbound, so under 1,000 TEUs, and only about 19,000 cargo tonnes. This expanded the Port of Liverpool's commercial TEU catchment by less than 2%, or, viewed a different way, made less than a 2% dent in the Port's HGV container traffic.

88 So action is needed to stimulate rail freight to do much more at the Port of Liverpool, within the limitations of available commercially attractive destinations. This is discussed briefly below, and again in the main joint report compiled by Greengauge 21 and JRC.

## Estimates of actual cargo flows on dock access roads

89 The table below summarises the potential gross HGV volumes linked to the Port of Liverpool, which centre around 1.8 – 2.3 million HGV trips a year. Offsetting flows are shown for rail freight flows, lighterage, and ship-ship cargo (eg scrap metal in, and then out via re-processing). HGV container flows might be reduced by up to 5% if there were cargo transfer which avoided HGV haulage.

| Summary of annualised Port-related HGV traffic levels, with conversion from tonnes/TEUs (units) to HGVs |  |  |  |                                                         |                 |                 |                                |                                  |                               |
|---------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------|-----------------|-----------------|--------------------------------|----------------------------------|-------------------------------|
| Dock sequence set out on right                                                                          |  |  |  | Cargo volume                                            |                 |                 | HGVs                           | if sharing                       |                               |
|                                                                                                         |  |  |  | Estimated survey TEUs in month                          | Annualised x 12 | TEUs            | if separate lorry for in & out | if sharing lorry 50% of outbound | Main Docks                    |
| Containers                                                                                              |  |  |  | inbound                                                 | outbound        | total           | (1 unit = 1 HGV)               |                                  |                               |
|                                                                                                         |  |  |  | 14,146                                                  | 7,318           | 21,464          | 515,136                        | 427,320                          | Liverpool 2                   |
| Bulk and general cargo below                                                                            |  |  |  | 18,986                                                  | 12,250          | 31,236          | 749,663                        | 602,669                          | Royal Seaforth                |
| Includes scrap metal after inwards rail and shipping offsets                                            |  |  |  | tonnes                                                  | tonnes          | Annualised x 12 |                                |                                  |                               |
| lighterage example also used                                                                            |  |  |  |                                                         |                 | Biomass & scrap |                                |                                  | Royal Seaforth                |
| All Drax biomass assumed by rail onwards                                                                |  |  |  | inbound                                                 | tonnes          | outbound        | total 2-way                    | by rail do not                   | Gladstone                     |
| Total bulk tonnes unloaded in survey period                                                             |  |  |  | 372,719                                                 | 189,072         | 561,791         | < involve HGVs                 |                                  | Alexandra                     |
| of which on by rail to Drax in survey period                                                            |  |  |  | 181,103                                                 |                 |                 |                                |                                  |                               |
| (biomass will be time-lagged)                                                                           |  |  |  |                                                         |                 |                 |                                |                                  |                               |
| Shipping inwards and outwards scrap flows from separate tab                                             |  |  |  |                                                         |                 |                 |                                |                                  |                               |
| Shipping inwards scrap in bulk vessels                                                                  |  |  |  | 15,343                                                  |                 |                 |                                |                                  |                               |
| Other inwards scrap in general cargo vessels                                                            |  |  |  | 5,894                                                   |                 |                 |                                |                                  |                               |
| Inbound scrap by rail during survey period                                                              |  |  |  | 34,898                                                  |                 |                 |                                |                                  |                               |
| Estimate of potential scrap & metals in by HGV                                                          |  |  |  | 51,885                                                  |                 |                 |                                |                                  |                               |
|                                                                                                         |  |  |  | 108,020                                                 |                 |                 |                                |                                  |                               |
| Possible scrap/metals out by bulk ships at multi-berths                                                 |  |  |  |                                                         | 91,485          |                 |                                |                                  |                               |
| Possible scrap out by general cargo ships                                                               |  |  |  |                                                         | 16,535          |                 |                                |                                  |                               |
| Residual cargo, out by general cargo ship                                                               |  |  |  |                                                         | 1,164           |                 |                                |                                  |                               |
| excl. scrap / biomass                                                                                   |  |  |  |                                                         |                 |                 |                                |                                  |                               |
| Rest of bulk tonnes arriving/departing Liverpool                                                        |  |  |  | 176,275                                                 | 96,423          | 272,698         | 3,272,376                      |                                  | Canada                        |
| Plus potential scrap and metals in by HGV                                                               |  |  |  | 51,885                                                  |                 | 51,885          | 622,620                        |                                  | (excl. Langton and Huskisson) |
| General cargo after deducting scrap & lighterage                                                        |  |  |  | 63,159                                                  | 23,286          | 86,445          | 1,037,340                      |                                  |                               |
| Ferry roro traffic                                                                                      |  |  |  | Estimated survey TEUs in month                          | Annualised x 12 | TEUs            | (1 unit = 1 HGV)               |                                  |                               |
| At Brocklebank (unaccompanied trailers via CLdN)                                                        |  |  |  |                                                         | 26,948          | 323,372         | 646,743                        | 485,058                          | Brocklebank                   |
| and Prince's (Isle of Man nominal flow - most via Heysham)                                              |  |  |  |                                                         | 960             | 11,520          | 23,040                         | 17,280                           | Prince's                      |
| OVERALL MAX and SHARING HGV TRIPS ANNUALISED VOLUMES                                                    |  |  |  | at Liverpool Docks north from City Centre:              |                 |                 | 1,630,158                      | 1,342,144                        | Liverpool 2-Canada            |
|                                                                                                         |  |  |  |                                                         |                 |                 | 669,783                        | 502,338                          | Brocklebank,Princes           |
|                                                                                                         |  |  |  |                                                         |                 |                 | 2,299,941                      | 1,844,481                        |                               |
|                                                                                                         |  |  |  | Restated as a daily 2-way basis, using a divisor of 350 |                 |                 | 4,658                          | 3,835                            | Liverpool 2-Canada            |
|                                                                                                         |  |  |  | Restated as hourly one-way during an 18 hour day        |                 |                 | 129                            | 107                              |                               |
|                                                                                                         |  |  |  |                                                         |                 |                 | 1,914                          | 1,435                            | Brocklebank,Princes           |
|                                                                                                         |  |  |  | As above                                                |                 |                 | 53                             | 40                               |                               |

HGV flows arising from shipping volumes have been reduced by annualised estimates:

- Rail conveyance of ~2.1 million tonnes of biomass from Gladstone Dock to Drax power station
- Inwards rail conveyance of ~400,000 tonnes of scrap to Liverpool dockside recycling plants, for subsequent shipping export.

No allowance has been made for the marginal 2% of containers carried by rail to Seaforth terminal.

An additional inwards regional HGV flow of ~620,000 tonnes of scrap has been estimated, associated with export shipping flows.

This does not include HGVs serving other dockside industry needs, nor HGVs via Wallasey Tunnel to Birkenhead-Ireland ferries or other docks there.

A 20% HGV share via Wallasey Tunnel to/from Birkenhead ferries and the local docks, with separate inward/outward lorries, would be 100,000 HGVs annually.

Based on HGV flows to/from Liverpool 2-Canada Docks mainly via A5036, Brocklebank-Prince's Pier mainly via Miller's Bridge.

Figures may differ slightly from the main report with rounding

90 The ratio of HGV traffic generated by each group of docks is roundly 70% for Docks more easily reached via Switch Island and the A5036, and 30% via Miller's Bridge. Some of the Miller's Bridge traffic can also reach Switch Island via the A5038 connection which joins the A5036 about half-way along its length.

- 91 In terms of direct traffic impact, the gross volume is around 3,650 – 4,450 HGVs (counting both directions) per day along the A5036. This would be more if Brocklebank and Wallasey HGVs add to the net traffic on the corridor, less any using the tunnel whose origin/destination is the northern group of docks on the Liverpool shore. The basic volume converts to about 100-120 HGVs each way per hour during an 18-hour day (in simple terms, up to two a minute during most of the day). The Miller's Bridge route will see 40-55 HGVs on a similar basis, again with a qualification for traffic via the Wallasey Tunnel.
- 92 This estimation does not allow for future traffic forecasts. It was the total volume of road traffic (mainly cars and vans) likely to use the same corridor to reach multiple destinations, which were significant stimuli for the Rimrose Valley road scheme. Meanwhile HGV operators incur driver and vehicle costs from the motorways and arterial roads to the Port, further time within the Port, and then a return leg away from the Port. The HGV economics of this 'last and first mile', and Port time, merit a separate, significant study.

## Scope for significant changes in cargo flows

- 93 There are international factors such as changes in trading agreements and tariffs, which are beyond the scope of the commission. Structural changes in HGV operations such as lorry electrification are outside the immediate ambit of this survey. In themselves they may not change much the gross volume of cargo, rather how the vehicles are scheduled, so are discussed in the main report.
- 94 What this survey can do is to identify the potential for changes in cargo volume and handling, and related HGV movements, arising from short term changes, and be alert to consequential trends in traffic flows along the principal Port access roads.
- 95 Because of the area's geography, there are limited routeing options between the Port, Wallasey Tunnel, and the main motorway and inter-urban trunk road junctions. It is those corridors, particularly via the A5036 or Miller's Bridge, which will directly experience the traffic and environmental impacts. We look below at foreseeable trends for particular **classifications of cargo flows**.
- 96 **Unitised container flows** saw a 16% decline in container units between 2019 and 2024 at Mersey Ports, and only a 7% growth since 2014. In terms of tonnage, 2024 volume was static compared with 2014, but saw only 70% of the 2019 tonnes.
- 97 It is understood that Liverpool is favoured by operators such as ACL and MSC for storing and returning empty containers to their deep-sea countries of origin (eg USA, China). It is not a statement of regional economic strength if many empty containers are shipped out.
- 98 It is foreseeable that empty containers will be a continuing logistical fact, until the North and North-West as a whole, and the Port, experiences regional economic revival. Better rail links to other UK commercial zones across the North and elsewhere, will mean more rewarding destinations with fuller containers and fewer empties!

- 99 **Ferry and Ro-ro trailer volumes across the Irish Sea** via Liverpool and Birkenhead have experienced loss of tonnage market share since 2019 and carry under 1 million TEUs annually. The main Liverpool operator, **CLdN**, has recently announced new investment to strengthen operations and be more cost-effective per cargo unit.<sup>13 14 15</sup> This is likely to increase Ro-ro volume once **CLdN** can avoid the slow, limiting entrance to Brocklebank Dock. This points towards Ro-ro recovery and growth with improved riverside docking, with a probable increase in HGV volume particularly via Miller's Bridge/ Breeze Hill.
- 100 The survey estimated **bulk and general cargo flows** as a range of 3.3-3.9 million tonnes, including scrap metal and other material but excluding biomass (at 2.1 million tonnes). Scrap volume may not diminish when new electric arc furnaces come on-stream at Port Talbot and Teesside, and in future at Scunthorpe, as the Liverpool re-cycling facilities prepare the right grade of material for these furnaces.
- 101 As a projected outcome, outbound scrap may be shared in future between shipping and rail. Inward HGV flows will continue from NW England, with a question about whether other scrap re-processing sites around England will provide adequate scrap quality for the new furnaces, or whether more will come via Liverpool – by rail or not – from elsewhere. There was no rail share of inwards new coil steel during the survey month.
- 102 The earlier discussion on bulk biomass looks towards a slow continuing decline in this traffic via Liverpool, however it is all via shipping and onwards rail, so at present it is not a hindrance to the A5036. Its decline may open up berthing space for other flows to re-use that – but will such new flows be road-based or rail-based for inland distribution? With current cargo handling and distribution, there is a strong risk of more HGVs.
- 103 There is a strong road-based trend towards palletisation of many smaller bulk flows, with the shipping world able to match this. However Network Rail is not yet geared to handle this new – and large-scale – source of cargoes. It would need to plan for adequate siding, main line and loop capacity to address this potentially fruitful traffic source, to achieve significant rail-based growth from major Ports and elsewhere.
- 104 However, as a pointer to the larger possibility, **Tesco** uses a palletised configuration for its own England > Scotland rail container service for consumer durables. Instead of a standard ISO size, it uses 45 foot-long containers and an internal 2.5 metre width. This allows 2 x standard pallets alongside each other, multiple times in length and height, and is slowly revolutionising the ability for pallets to be handled on other transport modes including rail. It can be accommodated straightforwardly within the larger UK rail loading gauges. So this could be a positive option for rail to do more at the Port of Liverpool in place of some HGV flows, but this is most likely at a future date with the new Great British Railways, not the present.

<sup>13</sup> <https://www.cldn.com/en/news/cldn-announces-plans-develop-river-berth-liverpool>

<sup>14</sup> <https://www.cldn.com/en/news/cldn-completes-move-of-shipping-operations-to-the-uk-and-welcomes-maritime-minister-to-london-terminal>

<sup>15</sup> <https://www.worldcargonews.com/news/2026/05/cldn-moves-operations-base-to-uk-enhances-irish-services/>

- 105 Trends in **bulk fuels and oil and chemical products** are not discussed as the traffic and industries are largely within Wirral and Cheshire, and mainly use shipping and pipelines. Clearly there will be some HGV-carried oil and product cargoes, but it is believed that most regional destinations are reached via the Mersey Gateway Bridge or the M56/M6/M62.
- 106 In conclusion, this discussion on trends at Liverpool point towards:
- Unitised container flows – empty container volumes continuing as now, or increasing unless the British economy picks up. HGVs are the main inland mode, only 2% is rail.
  - Ferry units and Ro-ro trailers expected to grow in volume with a new riverside berth.
  - Scrap in and out – volume growth as Liverpool is a quality re-processing location. HGV inwards flows may increase regionally; outwards flows will be via ship and rail.
  - Bulk cargo volumes – potentially new flows as bulk biomass is reduced, with the risk of inland access/distribution for such cargoes being by HGV not rail, and with the railway also not being ready to accommodate large volumes of palletised cargoes.

## Summary of JRC's 2026 shipping cargo survey and HGV assessment

- 107 The commission to the two consultancies was:
- To assess the actual extent to which the Port of Liverpool was the cause of the HGV impacts on the A5036.
  - To consider objectively whether there are potential and realistic options to mitigate or minimise impacts without the need for further planning for a new road.
- 108 The JRC survey has addressed the first reporting objective. Estimates of actual cargo flows on dock access roads summarise the extent to which the Port of Liverpool is the cause of HGV impacts. The survey shows about 1.8-2.3 million HGV port-related movements yearly, with 70% mainly via the A5036, and 30% via Miller's Bridge then the A5038 or Breeze Hill. Further HGV traffic is expected from Birkenhead Docks.
- 109 The survey extended to use of other transport modes to support the Port's functioning. Analysis shows a low level of ship-to-ship cargo transfer, while container transfers at Liverpool might not reach 5% with present shipping operations.
- 110 Rail as a freight mode was good for biomass (over 2 million tonnes in a year), moderate for scrap (about 400,000 tonnes into Liverpool for re-processing), but only 2% of the containers were handled at the Port, far less than at most other British major container ports. This fact on its own requires rail and its network to be re-specified to work harder, if greater modal transfer is wanted and if expanded Port activity is to be sustainable.

## Rail freight to work harder

- 111 Using the existing rail alignments, this report proposes as a high priority to expand the stabling length of container and other trains to increase their economic load. At present,

the Liverpool Port rail sidings are restrictive. In the absence of electrification (which remains desirable though not essential), use of new higher-power diesel locos would also help to eliminate double-heading on the docks branch railway.

- 112 The adequacy of existing rail siding capacity and where it is located in relation to main dockside activities also merits study. This should look ahead to the potential scale of rail freight having a much bigger rôle, with palletisation and swap-body designs to support Amazon-type flows as well as more traditional cargoes in a new packaging format.

### An option in the main report

- 113 The main report references the potential for a larger scale of regional ambition, and related regional Port access investment. There are moribund rail alignments that nearly reach back into the Port, and which re-used, by conventional or automated rail (or equivalent) could provide other channelled ways in and out for the Port, to help relieve the constrained road corridors.
- 114 There may be scope to open up an Inland Port with inland Customs capability, for containers and a wide range of swap-bodies and palletised flows. It could take the Port of Liverpool to the motorway – rather than v.v.

### **A survey and analysis of freight traffic at Mersey Estuary ports in April-May 2026**

JRC – Jonathan Roberts Consulting Ltd, BA4 4TE, October 2026

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