

The third Local Transport Plan for Merseyside

Annex 4

Freight Strategy

**LTP Support Unit
March, 2011**

LTP3 Freight Strategy

Key Issues

- Port of Liverpool is a major regional and national gateway.
- SuperPort has been identified as a transformational programme for Liverpool City Region and its success is of long-term strategic importance for the North West economy.
- Of the air quality management areas in Merseyside, three have freight as a major contributor to poor air quality.
- Need to reduce carbon emissions from freight transport
- Rail paths from the Port of Liverpool are underutilised. This is likely to change as other major planned and committed developments are delivered.
- Need to improve rail access to key strategic sites.
- There is the potential to make greater use of waterways in distributing freight.
- The Strategic Freight Network must be maintained.
- Use of Intelligent Transport Systems (ITS) to reduce congestion and improve environmental quality and road safety to be increased.

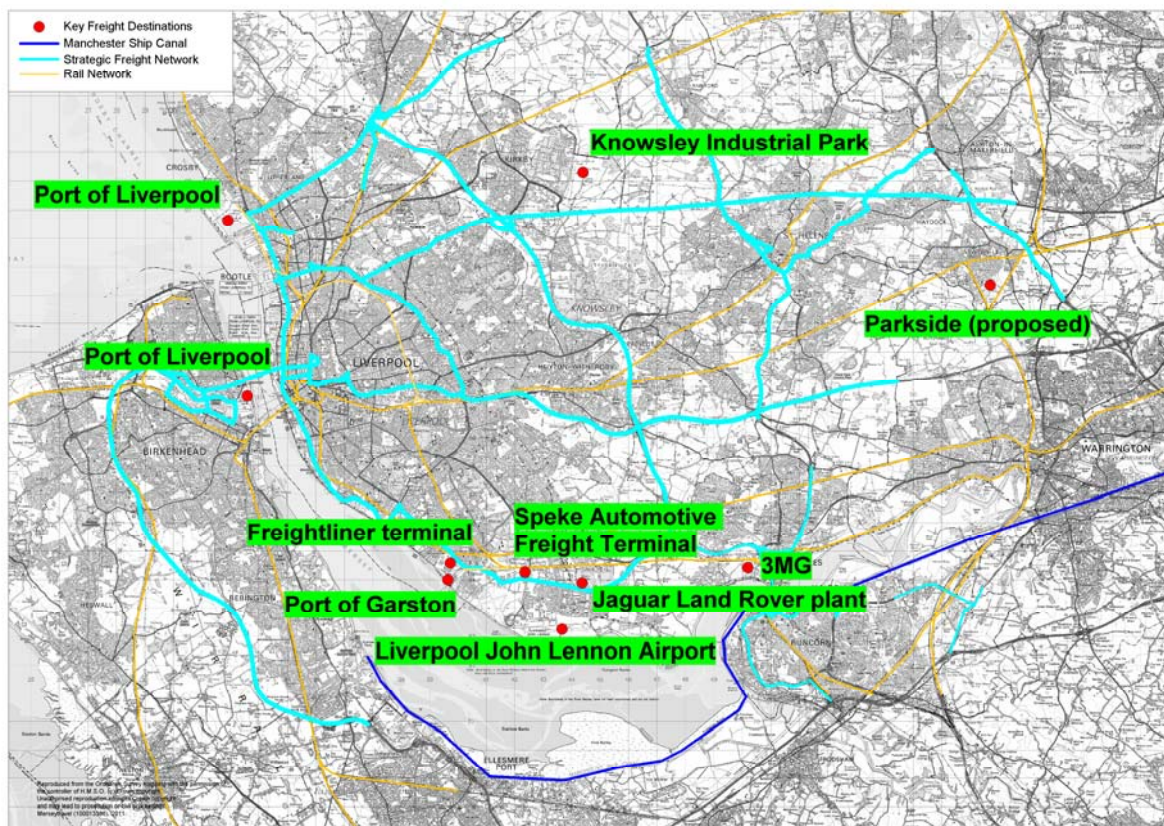
Setting the scene

1. The movement of goods is vitally important in supporting the priorities and economic success of Liverpool City Region. The Multi Area Agreement between LCR and the previous government identified a number of freight-related actions. These remain important, despite the abolition of MAAs by the Coalition Government. These include better management of the highway through ITS and monitoring freight related pollution generally. The Freight Strategy directly supports Goal 5 of the Local Transport Plan to ensure the economic success of this city region by the efficient movement of people and goods. It is also important in supporting the twin peaks of the Local Transport Plan of supporting economic growth and reducing carbon output from the transport sector. Ensuring good links to the Strategic Investment Areas (SIAs) and other important freight generators, and improving air quality and reducing carbon emissions (set out in Goal 2 for the LTP). This will be achieved through traffic management, the dissemination of best practice and fleet improvements.

Freight- Key Facts

- The port, airport and associated freight infrastructure contributes 34,000 jobs and £1.1 billion of GVA to the Liverpool City Region every year
- 36 million tonnes of freight transported by road in Merseyside in 2008
- 30 million tonnes of freight handled by the Port of Liverpool in 2009
- Liverpool John Lennon Airport handled 264 tonnes of freight in 2009

Key Rail Freight Multimodal Terminals in Liverpool City Region



2. We have pursued the dual theme of freight's importance to the economy and the need to reduce the environmental and social costs of freight: noise, congestion, air pollution, accidents and carbon emissions as highlighted within *Delivering a Sustainable Transport System: the Logistics Perspective* (DfT, 2008). More specifically, highlighted issues include the increase in van usage, the importance of the SFN and the role of ITS in better managing it from both efficiency and environmental viewpoints. The further importance of a sustainable freight strategy is also highlighted in terms of port access and the need to support inter-modal facilities such as 3MG, Knowsley Industrial Park (KIP) and the rail terminals in south Liverpool at Garston, Speke and Halewood.
3. Good progress has already been made over the LTP2 period in reducing congestion in Merseyside through a programme of actions including ITS and minor highway improvements agreed with the DfT. This focussed on eleven key routes across the County. The scheme has now come to an end but the Partners will continue to monitor congestion on key routes and seek to reduce congestion where necessary including on the Strategic Freight Network.
4. The links with land use planning are reflected across all elements of the Strategy, from supporting the larger developments to placing planning conditions on deliveries in support of delivery plans which may be linked to consolidation centres in the longer term.
5. Underpinning all the proposals is the Freight Quality Partnership; bringing all the major players together from the public and private sectors. Without an FQP in

place many of the main elements of the Strategy and many other elements will not be progressed to deliver their full potential benefits. The FQP will also develop cross-boundary links and relationships with neighbouring areas such as the Mersey Dee Alliance, West Cheshire, West Lancashire and Warrington for example. Closer cross boundary working, including with the Highways Agency, will also help improve efficiency of freight movements.

Responding to government guidance

6. The Freight Strategy has been informed by the Department for Transport's *Guidance on Local Transport Plans* (2009), the Department for Transport's *Delivering a Sustainable Transport System: the Logistics Perspective* (2008) and the 2011 DfT White Paper – *Creating Growth, Cutting carbon*. We have considered appropriate studies, including the *Access to the Port of Liverpool* (4NW, 2010; Sefton Council, 2011) study.
7. To ensure that our Freight Strategy best serves the needs of both the freight industry and local communities, we have consulted with local authorities, representatives of the freight and logistics community through the Freight Quality Partnership, Freight Working Group and our Planning for the Future Forum.
8. We have pursued the dual theme of the importance of freight to the economy, and the need to reduce the environmental and social costs of freight: noise, congestion, air pollution, accidents, and carbon emissions as highlighted within *Delivering a Sustainable Transport System: the Logistics Perspective*.
9. National government has an important role to play through the operation of its levers of investment, regulation, compliance, the planning framework and best practice. *Delivering a Sustainable Transport System: the Logistics Perspective* also recognises the importance of influence of national government at a local level. Many freight issues, such as congestion pinch points are highly localised. To address these local issues, the Department recognises the importance of Freight Quality Partnerships in creating understanding, enabling informed decision making and securing outcomes which are acceptable to the different parties involved. The local aspect has been further highlighted in the 2011 Local Transport White Paper, *Creating Growth, Cutting Carbon*.
10. The Local Transport Plan must integrate relevant plans and duties and these have also been considered in developing the Freight Strategy; in particular: the Network Management Duty, Transport Asset Management Plan, SuperPort Action Plan, Air Quality Action Plan and Noise Action Plans.

Previous Local Transport Plans

11. The second Local Transport Plan (2006-11) included the following program:
 - Seek to reduce congestion at key junctions on the SFN;
 - Improve access to the sub-region's ports and airport;

- Implement traffic management and environmental improvements on key sections of the SFN and related lorry routes;
 - Continue to develop an effective Freight Quality Partnership;
 - Encourage the development of private sector multi-modal interchanges;
 - Promote sustainable distribution and best practice fleet management; and
 - Promote the Mersey Gateway scheme for a new road crossing of the Mersey.
12. Overall this strategy was successful, and targets for HGV journey times were met. Road schemes included the Blackbrook (A58) diversion, Derby Road corridor (A565) environmental and capacity improvements and maintenance of the Bidston Moss Viaduct. The long absent Olive Mount Chord was reinstated to improve rail access to the Port of Liverpool.
13. The Merseyside Freight Quality Partnership was formed in 2001 under the first Local Transport Plan. Over the course of LTP2 the FQP was asked to and succeeded in:
- Raising the understanding of the role of authorities to facilitate more effective movements of freight;
 - Highlighting the merits and accessibility of rail freight among businesses across the region;
 - Ensuring the promotion of sustainable distribution principles across Merseyside; and
 - The FQP will continue to play an important role during the Third Local Transport Plan.

Consultation

14. Our Challenges and Opportunities consultation paper (March 2010) highlighted rising freight demand, particularly amongst vans as a challenge. There were a number of freight related priorities:
- Ensuring the efficient operation of the Strategic Freight Network;
 - Actively improving air quality;
 - A new generation of highway information systems;
 - Support for SuperPort;
 - Network management duty; and
 - Ensuring adequate funds for maintenance.
15. Respondents to the consultations wished to see a greater emphasis in the LTP on the freight and logistics sector. Comments supported the need to prioritise maintenance and ensure that we secure maximum value from existing assets.
16. It was also felt that further consideration should be given to the impact on communities, existing transport capacity and infrastructure associated with large scale developments, such as SuperPort, along with more detailed forecasting of activity associated with important facilities such as the proposed Post-Panamax terminal.
17. In considering the success of previous local transport plans, respondents were concerned by the perceived poorer air quality.

18. The consultation on the draft Preferred Strategy carried out in the autumn of 2010 reiterated the above concerns. There was further support for the objectives of reducing the environmental impacts of freight and also the emphasis on managing the increase in van usage. There was also a request for highlighting the potential of waterborne freight (particularly in relation to SuperPort) and the key importance of the Knowsley Industrial Park (KIP) as part of SuperPort. These concerns have been reflected in this revised Freight Strategy

Key Freight Related Development Areas

SuperPort

19. The vision for SuperPort is “To bring together and integrate the strengths of the Ports, Airport and Freight Community to create a ‘SuperPort’ for freight and passenger operations within the Liverpool City Region that will become a key driver of its economy. It will create the most effective and cost efficient environment for freight cargo logistics and passenger transit in the UK.” (*Liverpool SuperPort, TMP, 2008*).
 20. The SuperPort Action Plan was published in February 2011 and states that ‘the opportunities for SuperPort are global in scale and can transform the Liverpool City Region economy, creating 21, 000 new jobs and £6.1bn in GVA by 2020 and nearly 30, 000 new jobs and £18.1bn in GVA by 2030 (*SuperPort Action Plan, Delivering Economic Growth 2011-2020, TMP, 2011*).
 21. The SuperPort concept of developing a strong product and marketing it successfully to deliver its full potential encompasses activities within a range of sectors including ICT, professional services, transportation, related infrastructure and skills development. Transport infrastructure includes the Strategic Freight Network and the rail network. Passenger transport services linking the airport, a cruise liner terminal and the city centre will also be important to cater for the passenger related element of SuperPort. Enabling people to access work and education will be important in realising the skills development and employment goal (Goal 4).
- SuperPort**

“The continued physical development of SuperPort will come from planned expansion projects such as the post-Panamax container terminal facility at the Port of Liverpool, the 3MG Inter-modal developments in Halton, the rail freight scheme at Parkside, and the development of the World Cargo Centre at Liverpool John Lennon Airport as part of the Airport’s 30-year Master Plan. These developments are vital to the freight community and their customers. Large numbers of international trading companies rely on the ongoing development of port, airport and other logistics infrastructure in order to allow them to remain competitive in their own market place.”

Liverpool SuperPort, TMP, 2008
22. Key elements of SuperPort are the development and delivery of inter-modal freight facilities and well connected port centric distribution warehousing in the LCR. KIP and Knowsley Business Park are good examples of sites with potential on both counts. Knowsley Council has developed a Strategic Framework for the KIP and its potential is apparent. It is second in size only to Trafford Park in the

North West and employs 10,300 people in 600 businesses. It is strategically well placed to expand generating additional employment, is well located in relation to the motorway network and has a rail freight terminal within its perimeter.

Supporting SuperPort

- Enhanced access to the Port of Liverpool by the most appropriate sustainable transport modes, and, in the longer term, by complementary highway improvements, as these are required.
- Coordinated lobbying for national policy changes to support the use of rail and waterways (i.e. rail track access charges, rail path reservation, streamlining of handling charges involved in ship to shore transfer of freight, national provision of multi-modal terminals; the latter allowing for more freight to be transported by rail, especially to south eastern England)
- Targeted Improvements to the Strategic Freight Network and other parts of the network frequently used by freight to help ensure reliable journey times to key freight destinations whilst minimising environmental impacts upon frontagers and the local community.
- Land allocation (and reviews of existing designations) and use to support the development and operation of the SuperPort.
- Supporting the development and implementation of the Airport Surface Access Strategy.
- Working with the private sector to examine the need for improving access to freight sites across the City Region including, for example: Liverpool International Business Park, Estuary Commerce Park, Knowsley Industrial Park and Knowsley Business Park in Kirkby and Wirral International Business Park.

Atlantic Gateway

23. Atlantic Gateway is a framework for collaboration between the Manchester and Liverpool City Regions to enhance sustainable economic growth. The framework will support and enhance the SuperPort proposals.
 24. The framework aims to promote collaboration to add value and improve effective implementation through the identification of strategic priorities, advocacy and case making, coordination and collaborative leadership, developing new actions and solutions, and informing emerging policy development.
 25. The framework is centred upon four themes:
 - Innovation in key sectors;
 - Global gateway;
 - Sustainable infrastructure; and
 - Creating places that attract and retain talent.
- 1.26 The Global Gateway theme is of particular significance to the Freight Strategy. The key elements within it are:
- Port and Ship Canal facilities;

- Northern Hub;
 - Rail Freight Logistics Network;
 - Manchester and Liverpool Airports development;
 - High Speed 2; and
 - Next Generation Access Digital Infrastructure.
27. We will work to support the Atlantic Gateway and SuperPort concepts. The Atlantic Gateway concept will be particularly supportive of the use of waterborne facilities for the movement of freight.

The Port of Liverpool

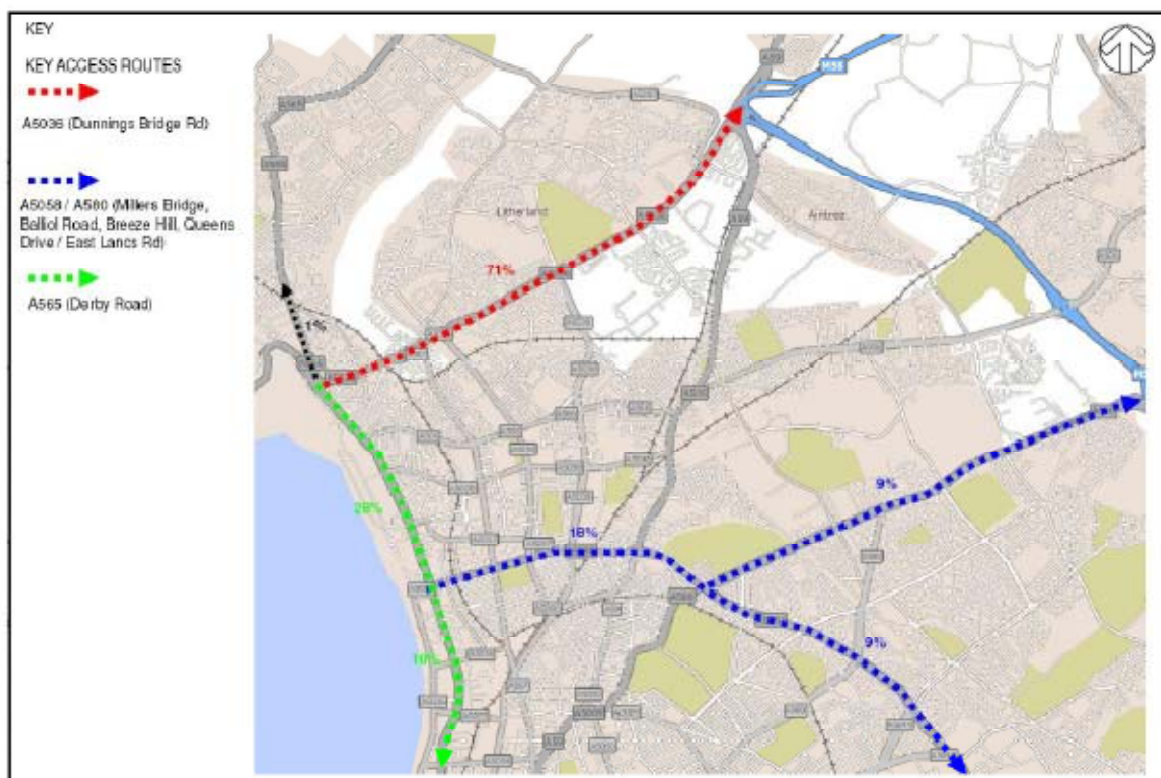
28. The Port of Liverpool is of key economic significance to the Liverpool City Region and the North West of England in general. The Port of Liverpool carried 30 million tonnes of freight in 2009, and is ranked 4th in the UK for container traffic. A Port Master Plan is being prepared by Peel Ports.
29. The Port makes a significant contribution to the economy of Liverpool City Region. Over 3,000 people are employed in about 200 organisations within the dock complex. The Mersey Partnership estimate that port, airport and associated freight infrastructure contributes 34,000 jobs and £1.1 billion of GVA to the Liverpool City Region every year. Increasing the accessibility of the port will help to create a more vibrant Port, creating new employment opportunities.
30. The Port of Liverpool includes Birkenhead Twelve Quays on the Wirral side of the river. Irish Sea ferries use Twelve Quays and a new floating stage was recently completed for Ro-Ro ferries. Improved links are being considered for the longer term including the reinstatement of rail links to Birkenhead Docks and Canada Dock. On the Liverpool side of the water, the Port has expansion plans in the more immediate future and this is discussed below.
31. Of the HGV trips generated by the port on the Liverpool side, 22% serve destinations within Merseyside such as 3MG, KIP and Liverpool City Centre; 35% serve destinations within the North West, particularly along the M62 Corridor; and 43% serve destinations outside the North West (*Port of Liverpool Access Study*, 4NW, 2010).
32. The Port is expected to expand with the development of facilities to serve the largest container Ships (Post-Panamax) which will serve the UK via a single stop at Liverpool rather than using one of the ports in the greater south east. This will increase the national distribution potential of the Port. In order to understand the full significance of this and other developments at the Port, a study has been carried out to identify the required access improvements by road, rail and water. The study was completed in two stages; the first stage was completed by 4NW and identified the transport issues for the Port, including those resulting from planned developments. The second stage was completed by Sefton Council and identified the access improvements required to support the Port and its planned expansion. Both stages of the Study are discussed below and a summary of the study is included as an appendix to this document.
33. A further consideration with regard to the Port should be highlighted here. The Offshore Wind Programme is expected to be developed in the Irish Sea in the short to

medium term and will require a supply chain for both its construction and maintenance once operational. Freight links and Port development will be crucial to support investments of up to £15bn in the Irish Sea Zone alone.

Access to the Port of Liverpool

34. The A5036 (Dunnings Bridge Road corridor) is the key access corridor for the Port, and carries 70% of its external road traffic. In addition to the A5036's strategic importance as part of the Strategic Freight Network, it also has important functions serving local communities, in realising regeneration and in providing access to Liverpool city centre. The freight flows on the A5036 are significant with HGVs representing 16-24% of traffic in the interpeak, 8-17% in the AM peak and 4-8% during the PM peak.

Approach Routes to the Port

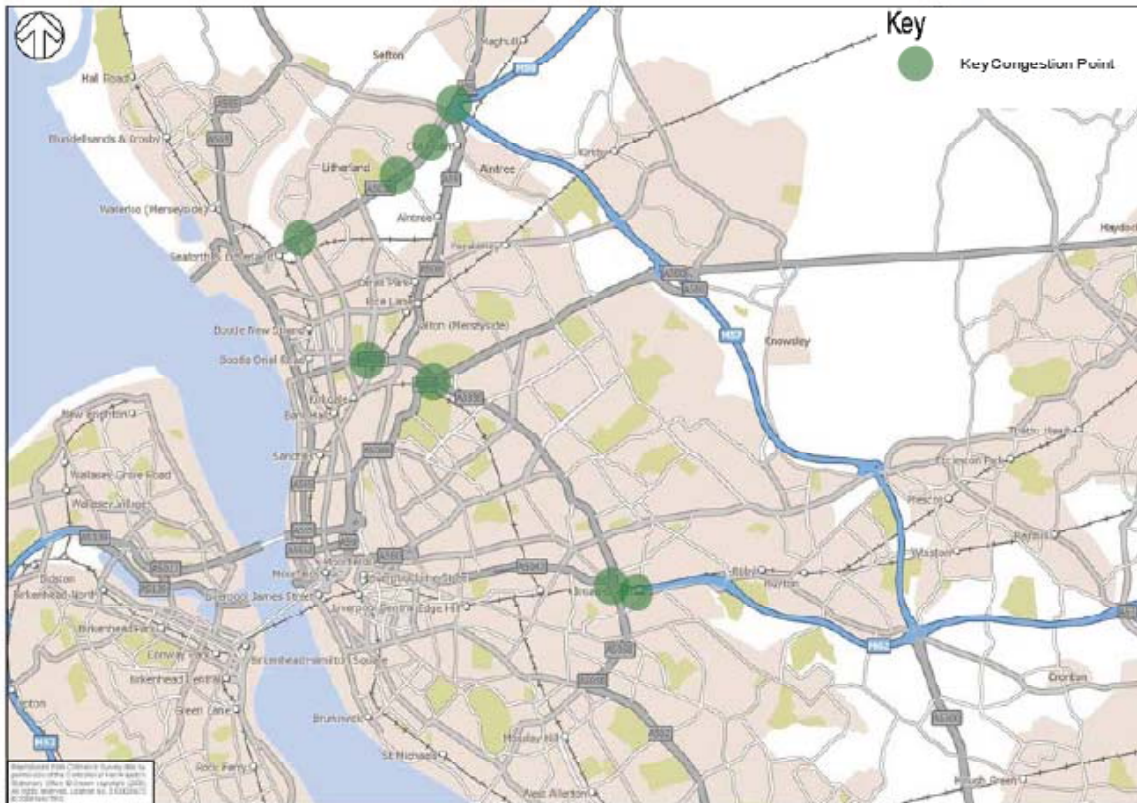


Source: Port of Liverpool Access Study, 4NW, 2010

35. During the AM peak, sections of the A5036 operate close to capacity. Westbound between M57/M58 junction and Copy Lane has a capacity ratio of 95% and westbound between Hawthorne Road and Orrell Road has a capacity ratio of 96%. The study identified a number of key congestion and bottleneck points:
- Switch Island
 - A5036 / A5207 Copy Lane
 - A5036 / Park Lane
 - A5036 / A5090 Hawthorne Road
 - A5058 / A5038 Southport Road
 - A5058 / A580 East Lancs
 - A5058 the "Rocket" junction

- M62 westbound approach to "Rocket" junction

Key Congestion Points



Source: Port of Liverpool Access Study, 4NW, 2010

36. The Access to the Port of Liverpool (4NW, 2010) study identified poor accident records at particular points of the A5036, including the Bridge Road Roundabout and the Switch Island Roundabout. The Bridge Road roundabout has geometric issues (including an adverse camber) which need addressing; however, the number of accidents involving HGVs is not disproportionate to the amount of HGV traffic.
37. The study explains that, "The Post- Panamax proposals are forecast to double container capacity at the port. As a result it is estimated that 1,450 two way HGV movements per day, assuming no modal shift, will be generated by the container terminal. This traffic is expected to use the Seaforth (80%) and Strand Road (20%) gates to the Port. As a result just over 900 HGVs per day in each direction are forecast to be added to the A5036 / Dunnings Bridge Road, assuming no modal shift."
38. Congested conditions are predicted at the following locations:
 - AM Peak
 - Eastbound between Bridge Road Roundabout and Hawthorne Road (95% capacity);
 - Westbound between Orrell Road and Hawthorne Road (98% capacity); and
 - Westbound between the M57/M58 Junction and Copy Lane (97% capacity).
 - Inter Peak
 - Westbound between Orrell Road and Hawthorne Road (92% capacity).
 - PM Peak

- Eastbound between Bridge Road Roundabout and Hawthorne Road (101% capacity);
 - Westbound between Orrell Road and Hawthorne Road (95% capacity);
 - Eastbound between Heysham Road and Park Road (90% capacity); and
 - Eastbound and Westbound between the M57/M58 Junction and Copy Lane (97% and 92% capacity).
39. The Port of Liverpool is connected to the rail network and to the Manchester Ship Canal. The study noted the importance assigned in national policy to increasing distribution by these sustainable modes. The expected increase in the port's national distribution will increase the average haul length, creating greater economies in favour of rail distribution.
40. The study found significant under used train path capacity. Of the 24 inbound paths and 22 outbound paths, only 11 paths in each direction were being utilised. In 2009, no container rail traffic was handled by the Port of Liverpool, with long distance containers being transported by road from the Port by Freightliner to their terminal at Garston. The utilised rail paths are used predominately for the distribution of coal to Fiddlers Ferry Power Station, and scrap metal. In the longer term, further capacity is likely to be released as the UK moves away from the coal-fired power generation. It was also found that some unused paths are not available for other rail freight services because they are effectively reserved for particular train operators rather than by the Port.
41. The development of the Post-Panamax terminal has the potential to increase rail distribution from the port to 22% of containers distributed by rail in 2020, and 24% by 2030. This is approximately 10 trains in each direction per day. The local infrastructure already exists to deliver this modal shift. However, it would also depend on good rail connectivity to the Post-Panamax berths and on the development of a national network of rail freight distribution parks. It will therefore be important for Liverpool City Region to lobby nationally for policies to support rail freight distribution.
42. A 320 TEU (twenty-foot equivalent unit) barge service already operates three times a week between the Port of Liverpool and Irlam Container Terminal. The study suggests that the development of Port Salford and Port Warrington could support significant growth in waterways container traffic.

Access Improvements

43. The study concluded that improvements to sustainable modes should be taken forward in the shorter term to 2014/15. These might include improvements to terminal rail capacity at the Port and improvements for freight barges on the Manchester Ship Canal. A number of improvements are also proposed for better sustainable access to the Port for employees by public transport, walking and cycling. In the longer term improved highway access will need to be considered to maintain journey times and reliability for freight traffic to and from the Port, particularly in terms of the hotspots identified above.
44. It should be noted here that Sefton Council have already received approval for the Thornton to Switch Island single carriageway highway scheme and this will go ahead in

the short term. It will provide relief to the very busy A5036 Dunnings Bridge Road/Copy Lane junction by removing Southport traffic heading to and from the motorways, and hence improve journey time reliability for traffic between the Port and the motorway network.

45. In terms of rail the main conclusion of the study was that the major constraint to the further development of intermodal rail freight services is likely to be lack of intermodal rail terminal capacity in the Port of Liverpool at Seaforth. The study further concluded that 'Outside the port gates we do not believe that there are any significant capacity issues on the rail network as the key constraint was removed by the construction of the Olive Mount Chord, which opened in December 2008'.

Key Interventions

Rail

46. The increased use of rail, as opposed to road, for freight transport is fully supported by the LTP, in recognition of the economic, environmental and social benefits of rail freight.
47. The Port Access Study considered rail access to and from the Port. Generally, the present infrastructure is adequate with a W10 clearance into the Port estate along the Bootle Branch line. There is, in fact unused rail capacity to the Port. The Post-Panamax facility has been assessed by the study as likely to generate more demand for rail use but this can be catered for without significant improvements in the local network. There are issues in terms of the national network, including rail capacity in the south of England and the need for intermodal terminals in the south east for which lobbying will be required. Intermodal terminals in the south east would allow rail transport from Merseyside followed by road transport for the last leg in the south east. This would allow Merseyside to effectively serve the south east and attract more deep sea freight from the greater south east ports.
48. There have been a number of policy measures to support the development of sustainable distribution. However, the dominant determinant for distribution mode from the Port is the relative transport economies of road, rail and waterway. The availability of origins and destinations served by sustainable modes is also a significant factor. Road freight transport is highly cost effective. However, rail freight is becoming increasingly competitive. Sustainable distribution tends to be more cost effective over longer distances. There are also opportunities presented by the Channel Tunnel for long distance rail freight to and from the North West to Continental Europe.
49. Access to rail freight sites is crucial, both in terms of a national network of intermodal terminals and locally. Merseyside has three key rail freight terminals in the south Liverpool area. One is at Speke and is sub-leased to The Ford Motor Company to act as its main distribution centre in the north of England with trains bringing in cars for local distribution by road to Northern England and Scotland. The second rail freight terminal is nearby at the Jaguar Land Rover Halewood plant in Knowsley and allows cars to be distributed nationally by rail to ports for export globally. These existing operations are of national, regional and local importance and will be supported as such; recognising that once suitable sites are lost to railway connection; it will be difficult to replace them.

They play a key role in supporting the automotive sector cluster in South Liverpool / Knowsley. We note with regret, however, that the Freight Facilities grant has now been abolished. The third rail freight terminal is the ABP Garston Freightliner terminal which handles intermodal container trains from the South Coast ports.

Key Rail Measures

- To monitor the situation;
- Preservation of rail port access alignments where the case for retention can be made, for example, for the Canada Dock link and Birkenhead Dock rail link;
- To lobby for national policy to support the greater use of rail freight, including through the forthcoming Transport National Policy Statement and by safeguarding powers based on PPG13 in the National Planning Policy Framework (NPPF)
- To lobby for national support for rail generally such as through reduced track access charges, the reservation/protection of train paths and the reinstatement of financial support for freight facilities;
- To lobby for improvements to the national network as required (including through the forthcoming Rail White Paper and Network Rail funding); and
- To lobby for increased national provision of intermodal freight terminals.

Waterborne

50. Manchester Ship Canal is ranked 19th in the UK in terms of port traffic volumes, handling 8.1 million tonnes of cargo in 2007. It is almost exclusively a short sea port and provides inland waterway access for short sea and coastal vessels towards Warrington and Manchester. Peel already runs a barge service along the canal. Any further schemes for increasing freight traffic on the canal would be supported.

Key Waterborne Measures

- To monitor the demand for waterborne freight;
- To support the Peel Manchester Ship Canal scheme; and
- To support any other waterborne freight schemes as appropriate.

Liverpool John Lennon Airport

51. Liverpool John Lennon Airport Master Plan 2030 includes significant freight aspirations. The Airport Master Plan aims to increase cargo from 16,500 tonnes in 2004 to 39,900 tonnes in 2015. Without the uptake of additional land, cargo development is constrained at 40,000 tonnes per year. Beyond 2030 the master plan identifies the development of the Oglet World Cargo Centre. As the airport develops in terms of passengers and cargo, the need for new surface access infrastructure will be investigated, including for the Eastern Access Transport Corridor (EATC).
52. Cargo handled by the airport has however recently reduced substantially due to the suspension of TNT's operations. We are aware of the airport's long term aspirations and will continue to work with Liverpool John Lennon Airport to consider and respond to the airport's development, as well as supporting the airport's Surface Access Strategy in the shorter term. The Surface Access Strategy seeks improvements in public transport

access to/from the airport and to reduce the reliance on unaccompanied private motor vehicles for passengers and airport employees.

Key Airport Measures

- To monitor the situation;
- To consider the aspirations for the long term development of the Eastern Access Transport Corridor and support private provision of new infrastructure where justified; and
- Support the airport's Surface Access Strategy.

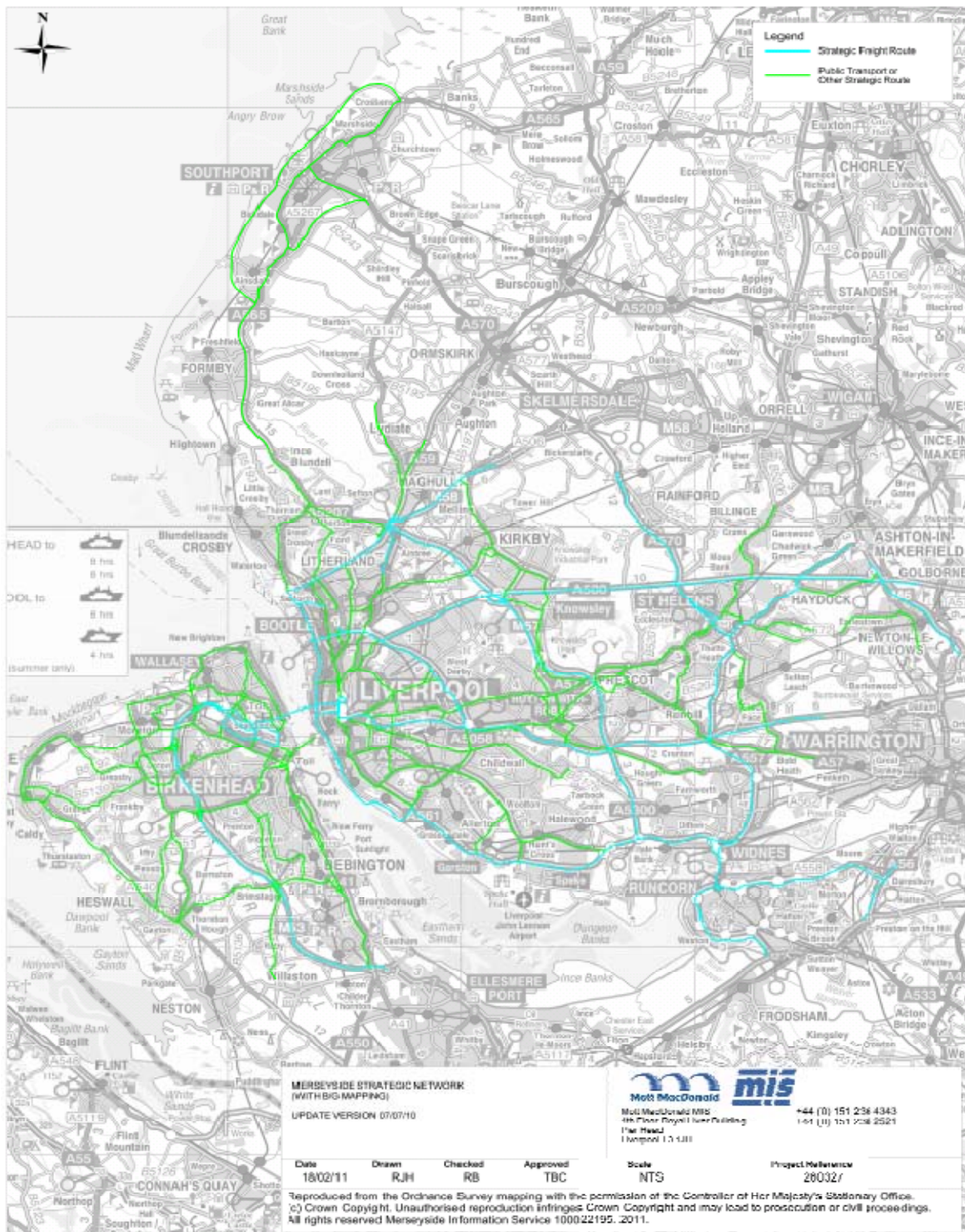
Road

53. A free flowing road network is essential to supporting the economy, and in minimising the effects of road traffic on air quality and carbon emissions (Goals 1 and 5).

Strategic Freight Network

54. The Strategic Freight Network identifies those routes most significant for the through movement of freight. Currently the SFN includes M53, M62, M57, M6, Queens Drive, A5300, A561, A565, A5036 Dunnings Bridge Road and the A580 East Lancashire Road. Within Halton the Silver Jubilee Bridge forms part of the SFN.

Liverpool City Region Strategic Freight Network



55. During the autumn of 2010 the DfT consulted on amending the Strategic National Corridors (SNC) to include a link from each of Scotland, Wales and Northern Ireland to the nearest English city. For Northern Ireland the link from Belfast to Liverpool was identified via the ferry terminal at Birkenhead Twelve Quays. The Merseyside authorities were in agreement that a route via the Kingsway Tunnel should be added to the SNC to link Liverpool to Birkenhead and the ferry terminal together with an alternative route

along the M53. Both routes are already on the SFN and their inclusion would not therefore require any further amendment to the network. There remain some concerns however on the possibility of additional maintenance costs arising out of the possible revised designation for Kingsway Tunnel.

56. Future hotspots on the SFN for 2014 and 2024 have been identified using the Liverpool City Region Transport Model. A key problem area was revealed to be the A5300 Knowsley Expressway junction with the A561/A562 in Knowsley. There are severe queuing problems at peak periods, especially for vehicles accessing the A562 southbound from the A5300. This is a key junction on the SFN; providing access to both the 3MG intermodal terminal and the Silver Jubilee Bridge across the Mersey. Short and long term schemes are currently being developed by Knowsley Council. Other key congestion points on the SFN in both 2014 (and 2024) were along the A5036 Dunning's Bridge Road, Queens Drive, Riverside Drive, and Edge Lane between the M62 and the Liverpool City Centre.

Intelligent Transport Systems

57. Intelligent Transport Systems will be used to better manage traffic to support a free flowing network, reduce congestion and improve air quality. A key objective will be a package of measures including, enhanced integration of national and LCR highway network Variable Message Signing, greater flexibility in their permitted message content and use of HA Traffic Officers on Trunk Roads as well as Motorways.
58. By the end of the LTP3 period all authorities are likely to have VMS infrastructure with journey time monitoring along key routes and linked air quality monitoring devices. There will also be a common data base facility to allow the sharing of information from all sources, including the HA. The task for the Freight Group will be to understand how this infrastructure can best support the freight agenda in both operational and environmental terms.
59. ITS will be used to increase the free flow of traffic, particularly by reducing average journey times in the morning peak.
60. In addition to improved road and traffic management, Intelligent Transport Systems will also enhance longer term monitoring and evidence gathering. This new evidence will enhance policy making. It will also support the integration of freight management into

Intelligent Transport Systems

The Urban Traffic Management and Control systems for all of the Merseyside districts will be integrated over the lifetime of LTP3. This new infrastructure will also be connected to the Highways Agency database. The system will include car park management, automatic number plate recognition, variable message signs, CCTV, journey time monitoring, monitoring of meteorological conditions and air quality.

This improved monitoring will allow traffic controllers to respond to and manage congestion, journey times, carbon emissions and air quality for all traffic, including freight.

the network management duty which every local authority has under the Traffic Management Act 2004.

Lorry Parking

61. The Department for Transport have commissioned a national Lorry Parking study. In November 2009, *Lorry Parking Baseline Report, Understanding the Current Situation* (DfT, 2009) was published. This report considered types of lorry parks, supply and demand, driver motivation, current policy and infrastructure, the current planning environment, and sets the scene for developing a national lorry parking strategy. The importance of lorry parking and the associated security issues are illustrated within the report:

“Within England there is estimated to be 40,000 truck crimes that occur annually and over £500 million worth of trucks and goods being stolen, with over 3,000 HGVs being taken each year and never recovered.”
62. Work is currently in progress to develop a national strategy and action plan for lorry parking in England. The Action Plan is expected to be published in mid 2011.
63. Within Merseyside, discussions held with local authorities and businesses in preparation for developing the Local Transport Plan identified some localised problems with lorry parking.
64. We will consider the findings of the national study, and will look to facilitate the resolution of local issues. Issues surrounding crime will be a particular focus and we will seek to make any lorry parking facilities as secure as possible.

Deliveries

65. Businesses were asked about the experiences of deliveries in the *Merseyside LTP Business & Transport Research Report* (MTP, 2008). This research suggests that a significant minority of businesses are affected by delays in deliveries to or from their businesses. 13.5% said traffic delays affected the effectiveness of deliveries significantly, and a further 15.9% said it affected the effectiveness of deliveries somewhat. 14.6% reported that such delays regularly cause major impacts for their business such as missed deadlines or lost businesses. 64.2% reported that this happened occasionally.
66. Businesses reported that these delays were caused by irregular journey times.
67. The most commonly reported response to these deliveries problems was the use of premium delivery services.
68. A study is currently on-going to assess the potential to relax planning conditions which are generally used to restrict deliveries to the day-time. This is the Quiet Deliveries Demonstration Scheme (QDDS) and is jointly managed by the DfT, FTA and the Noise Abatement Society. The study will report in mid 2011 and will be reviewed to assess the potential benefits to the Merseyside businesses and residents from relaxing planning conditions. Reducing freight movement in peak periods, where possible, to lessen the

cumulative effect of transport is supported by the *Transport and Health Resource, Delivering Healthy Local Transport Plans* (DfT, DoH, 2011)

- 69. Recent guidance, *Transport and Health Resource, Delivering Healthy Local Transport Plans* (DfT, DoH, 2011) suggests that reducing goods movement at peak times would deliver both environmental and health benefits by reducing the cumulative effects of traffic and removing conflict with pedestrians and cyclists. Enabling quiet night-time deliveries could be a key instrument to this end.
- 70. In tandem with the above consideration will also be given to a greater emphasis on requiring Delivery and Servicing plans through the planning process to reduce environmental, safety and congestion impacts. There will be a need to ensure that the demand for kerbside space for servicing and deliveries is met without detriment to other legitimate uses such as disabled car parking.

Traffic Delays and Deliveries

(The following tables are from the Merseyside LTP & Business Transport Research Report, 2008)

Figure 3.70: Q25. To what extent does your organisation find that traffic delays affect the effectiveness of deliveries either to or from your business?

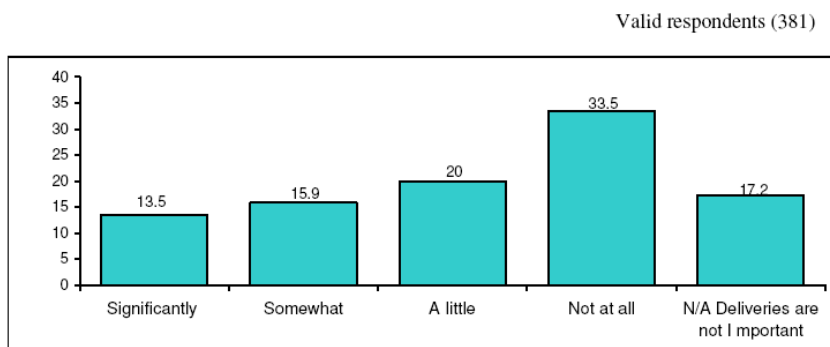


Figure 3.73: Q28. In terms of the impact of traffic delays on deliveries: is this mainly related to constant increased journey times due to delays, or unreliable journey times due to irregular delays?

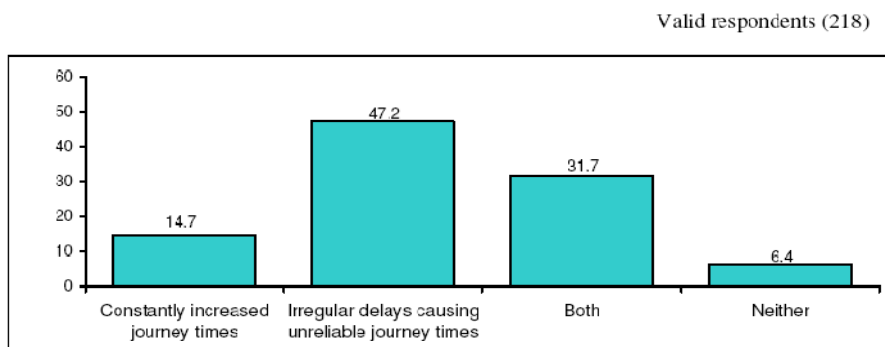


Figure 3.73: Q28. In terms of the impact of traffic delays on delivery related to constant increased journey times due to delays, or unreliable due to irregular delays?

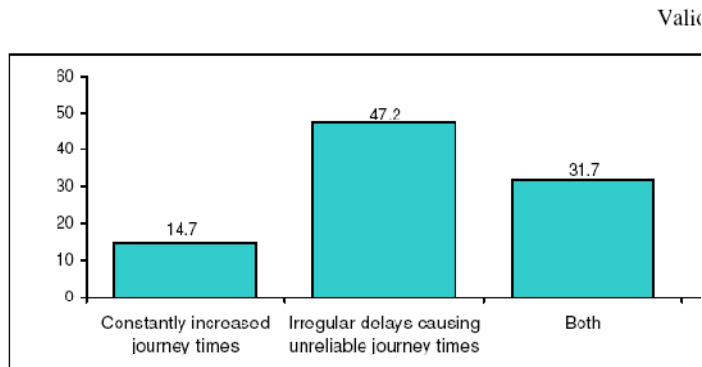
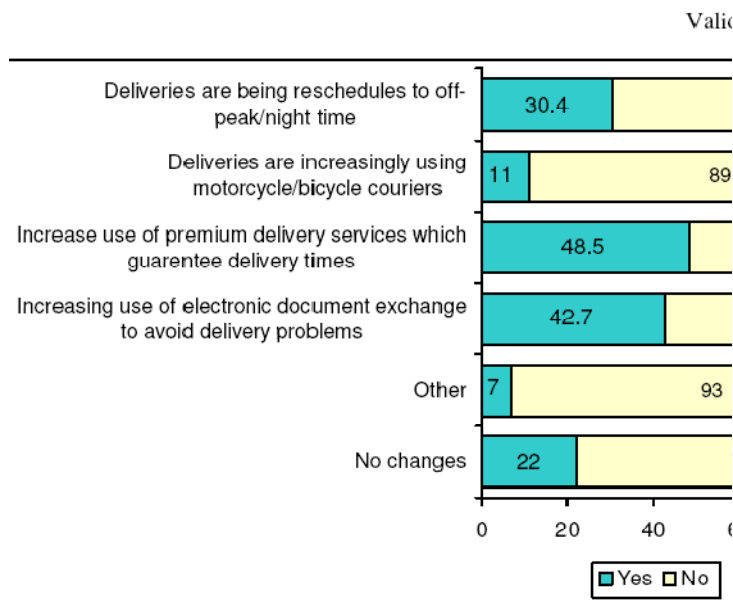


Figure 3.75: Q30. How is your business responding to any delivery by traffic delays?



Vans – evidence base

A local survey of van usage was undertaken by JMU students in late 2010. Van counts were undertaken at 14 locations indicating the construction sector was the largest single user in terms of marked vans. Telephone interviews were also undertaken with 28 van operators. We will consider the implications of the growth in van usage for traffic management, carbon emissions and air quality.

Vans

71. Prior to the recession, nationally there had been an increase in the number of light goods vehicle trips from 1.36 million in 1967 to 3.26 million in 2007 – an increase of 140% (*Delivering a Sustainable Transport System: the Logistics Perspective*, DfT, 2008). Over the period from 1999 to 2009 alone van traffic increased by about 29%. However van traffic has fallen since 2007, along with total traffic (*Transport Statistics Great Britain: 2010*, DfT, 2010).
72. As noted in *Delivering a Sustainable Transport System: the Logistics Perspective* (DfT, 2008), vans are multipurpose vehicles, and the Commission for Integrated Transport estimate that only 35% of LGVs are used to carry freight. The *Transport Statistics Bulletin – Road Freight Statistics* (DfT, 2008) suggests that vans owned by business account for 61% of the van fleet, 28 % of vans are privately owned and 11% are

owned by leasing companies. 53% of the distance travelled by vans is primarily for the 'carriage of equipment' and 26% is for the 'delivery / collection of goods'. The Merseyside van survey (see box above) recorded a large number of unmarked vans. Of the marked vans only 15% were clearly carrying goods. The results are only indicative but tally with above DfT statistics; only a minority of vans carry goods.

Best Practice – Promoting low emission fuels and alternative technologies

The Low Emission Strategy (LES) Programme was launched in 2007 with the purpose of disseminating good practice in reducing transport emissions of toxic air pollutants and greenhouse gases. The Programme specifically seeks to accelerate the deployment and penetration of low emission transport fuels and technologies. This is achieved by supporting local authorities to adopt and implement low emission policies, strategies and measures. This work will be extended through the FQP to the private operators in the freight sector.

Alternative fuels such as biomethane or biogas will be promoted through the FQP. Links could also be established with the Biofuels User Group set up through BIONIC EU project by Merseytravel.

73. Our local evidence base highlighted a forecast increase in van trips of 17.7%, and an increase in distance travelled of 18.1% from 2008 to 2014. Clearly further work is required to fully understand the increase in van usage in Merseyside.

Maintenance

74. Infrastructure maintenance is particularly important on the Strategic Freight Network given the degradation caused by the volumes of traffic, sizes and weights of vehicles which use these routes. Freight vehicles will be directed towards the SFN to reduce degradation of roads unsuitable for freight. We will monitor the maintenance requirements of the SFN. Sufficient resources will need to be allocated to maintain these key routes. As part of the performance management of the LTP we will monitor the condition of the SFN, as well as other strategic routes

Key Highway Measures

- General improvements to the highway Strategic Freight Network;
- Specific improvements for access to the Port of Liverpool; and
- ITS improvements.

Air quality and carbon reduction

75. The air quality and carbon reduction agendas are being taken forward together for LTP3. Freight traffic is a significant contributor to both problems on Merseyside. One of the main air quality pollutants is NOx. HGVs and LGVs combined contribute to about 50% of transport NOx in Merseyside. In terms of CO2 across the UK, HGVs and vans contribute about 30% of domestic transport's share of greenhouse gases.

76. There are six Air Quality Management Areas (AQMAs) in Merseyside: a city wide AQMA in Liverpool, three smaller AQMAs in Sefton and two in St Helens.

HGV emissions are estimated to be the main source in the following locations:

A5036 Princess Way from Ewart Road to the flyover	NO ₂
A5058 Millers Bridge at the junction with A565 Derby Road	PM ₁₀ and NO ₂
Area 70m either side of the M6 Motorway in St Helens	NO ₂

77. There is the potential to introduce two further AQMAs in Wirral around the A41.
78. Each Local Authority with an AQMA is developing an action plan for each designated area. Common themes across all the AQMAs (and potential AQMAs) will be investigated to develop co-ordinated action plans where this might be useful.
79. Merseyside has been designated a regional champion for Low Emission Strategies, bringing the possibility of funding for a demonstration project on fleet management/assessment. This is being investigated in relation to freight fleet management and the promotion of Best Practice. The promotion of alternative fuels for HGVs, such as Biomethane or Biogas will be investigated.
80. Reducing emissions from freight vehicles through the dissemination of best practice, alternative fuels, consolidation of deliveries and traffic management will be important for the reduction in CO₂ emissions and will be a significant contributor to the development of a low carbon economy in Merseyside.
81. Noise has not so far been highlighted as a problem in relation to freight traffic but a noise monitoring programme will be considered and priorities agreed through the setting up of closer working arrangements with environmental groups locally and at a pan-Merseyside level

Key Environmental Measures

- Merseyside co-ordinated Plan for AQMA and Carbon Reduction;
- Low Emissions Strategy;
- Promotion of fleet management best practice through the Freight Quality Partnership;
- Investigate ways of giving priority on the network to less polluting vehicles;
- Promotion of alternative fuels, possibly including a biomethane or biogas demonstration project;
- Noise monitoring;
- Closer working with environmental groups;
- Longer term consideration to be given to the development of consolidation centres with possible related electric vehicle infrastructure for short distance delivery; and
- Use of ITS to monitor traffic flow, emissions and journey times and better manage freight traffic.

Best Practice - Reducing the environmental Impact of Distribution

Transco National Logistics, based in Birmingham, is a good example of best practice in reducing the environmental impacts of distribution by changing their practices in a number of ways.

Transco National Logistics team delivers engineering material for National Grid Transco's gas supply business. Their Birmingham based distribution centre operates 35 articulated vehicles and delivers £120 million worth of goods to 14 smaller warehouses across the UK, servicing over 200 customers. The fleet consumes 1.4 million litres of diesel and travels around 2.5 million miles per annum. The entire operation costs £3.5 million a year of which fuel is a large contributor.

In 1999, Transco became the first western utilities company to be certified with the ISO14001 environmental management system (EMS) standard. Transco realised that good environmental practice makes good business sense and decided to implement three environmental projects:

- Introduction of alternative fuel vehicles
- Introduction of step frame trailers
- Optimising vehicle routing

Alternative Fuel Vehicles

Transco decided to explore the option of vehicles that use alternative fuels, in particular Compressed Natural Gas (CNG). CNG vehicles are cleaner; produce lower exhaust emissions and cost less to run than the diesel alternative. After an initial trial, Transco concluded the CNG would bring significant saving without any serious impact on operations.

Step Frame Trailers

Transco have continued to find new and innovative ways of maximising efficiency and environmental improvements. Their philosophy; 'the more you can load on a vehicle, the less journeys you need to make', thus resulting in lower costs and less pollution led them to develop trailers with extra capacity.

Optimising Vehicle Routing

Transco National Logistics is famed for its country wide responsibility for warehousing and inventory management. They distribute using pre-determined delivery schedules however there are on occasions where customers need urgent deliveries outside of the schedule. Transco decided the answer to this was improved communication, if a customer needed an urgent delivery; Transco would inform them of the associated additional costs or asked them if they could wait until the next scheduled delivery was due.

Transco National Logistics team is an excellent example of how improving the efficiency of a transport operation can realise significant environmental benefits that contribute to a company's overall EMS. The implementation of these three initiatives has the combined, annual environmental benefit of;

- Reducing distance travelled by 66,000 miles
- Reducing carbon dioxide emissions
- Reducing emissions of other harmful pollutants
- Reduced noise pollution

Land Use Planning

82. Freight considerations need to be integrated fully with the land use planning system. This includes the implementation of planning conditions with approvals, for example to manage deliveries, or to require electric vehicle infrastructure charging in a new development. Consolidation centres may be supported through the land use planning system by the allocation of land, or by requirements to manage deliveries sustainably. It is noted that the recent changes to the planning system with the abolition of Regional Spatial Strategies and the publication of the Localism Bill may make it more difficult to allocate land for freight consolidation centres, lorry parks etc. This is due the increased power for residents/businesses close to a proposed facility to oppose planning permission. Any plans for consolidation centres would need to be linked to the LDF process.
- Delivery Consolidation**

To reduce vehicle movements and make best use of space within delivery vehicles, we will work with private sector operators through the Freight Quality Partnership to facilitate the sharing of unused space in vehicles.

Consideration will be given to developing a consolidation centre or centres for the longer term
83. In reviewing existing consolidation centre schemes eg at York, Bristol and Norwich some further issues were identified which would make the progress of a consolidation centre difficult. A particular recurring issue is funding with Norwich, for example, unable to attract sufficient users to make the scheme self sufficient. In terms of LTP3 strategy consolidation centres are therefore considered a long term possibility depending on further evaluation.
84. The Freight Strategy will support, wherever possible, the development of significant freight origins/destinations in areas accessible to a workforce by sustainable transport. Where a workforce has not got the necessary skills the Merseyside Transport Partnership will seek, in partnership with the education sector, to develop those skills

Key Land Use Planning Measures

- Planning conditions;
- AQMA support;
- Alternative fuels/charging infrastructure etc;
- Assess Consolidation centres for the longer term; and
- Accessibility to employment.

IMPRESS Project

If the bid is successful this European project will promote an integrated approach to delivery and travel to destinations through the use of Integrated Movements Plans which combine Delivery and Servicing Plans with Travel Plans.

Partnership

85. Partnership working, especially through the Freight Quality Partnership will be the key to the success of the Freight Strategy. Only by partnership working can the needs of the freight operators and users be clearly articulated and shared with the public sector (local authority and Highways Agency) managers of the highway network, and other network providers such as Network Rail.
86. For LTP3 we will also seek to work closely with environmental groups to ensure a balanced approach to the implementation of the Freight Strategy.

Key Partnership Measures

- New Partnership Framework for the Freight Quality Partnership;
- New channels for the dissemination of information;
- Lobbying and awareness campaigns;
- Development of education and skills strategy;
- Continual monitoring of issues at the international, national and local level;
- Development of sub-strategies as required e.g. for lorry parking, delivery plans, managing construction traffic, freight traffic to waste treatment sites;
- Closer working with environmental groups; and
- Delivery of the IMPRESS project.

Summary of Proposed Interventions

Intervention	Addresses Goals	Short / Long term	Anticipated Outcomes
Develop a co-ordinated approach to freight related Air Quality Management Areas (AQMA) and carbon reduction action plans across Merseyside	2, 5	Short term	<ul style="list-style-type: none"> - Address multiple objectives - Manage traffic and promote best practice to improve air quality and reduce carbon emissions. Development of public sector fleet benchmarking tool
Develop the freight contribution to Low Emission Strategy	2	Short term	<ul style="list-style-type: none"> - Improved air quality through reduced emissions, reduced carbon emissions
Work with the Freight Quality Partnership and other groups to promote best practice and improve environmental performance	1, 2, 5	Short term	<ul style="list-style-type: none"> - Enhance working with freight operators, local authorities, Highways Agency and environmental groups - Addresses multiple objectives - Private sector engagement - Delivery of the IMPRESS project - Efficient network to aid business efficiency - Implantation of best practice amongst freight operators within Merseyside reducing emissions
Work with fleet operators to implement accreditations and standards linked to local authority and other public service performance policies	1	Short term	<ul style="list-style-type: none"> - Enable local freight operators to successfully bid for public sector contracts, improved standards leading to reduced emissions
Identify and implement ITS and low cost improvements to the Strategic Freight Network to improve efficiency and ensure improvements benefit other users such as cyclists and walkers	1, 2, 3, 5	Short term	<ul style="list-style-type: none"> - Improved business efficiency and help economic growth - ITS used to manage traffic resulting in free flowing traffic, reduced congestion, reduced emissions, improved air quality
Ensure the Strategic Freight Network is adequately maintained.	1, 5, 6	Short term	<ul style="list-style-type: none"> - Ensure business efficiency and encouragement for inward investment - Free flowing traffic (reduced emissions)

Intervention	Addresses Goals	Short / Long term	Anticipated Outcomes
Integrate freight into the land use planning process across Merseyside to support the efficiency, equality and environmental agendas	1, 2, 4, 5, 6	Short term	<ul style="list-style-type: none"> - Improved access to employment sites. - Reduced deliveries (and associated emissions) through delivery plans
Investigate use of alternative fuels for the freight sector and link into the alternative fuels strategy	2	Long term	<ul style="list-style-type: none"> - Utilisation of findings from Bionic project, support companies in uptake and adaption, long term reduced emissions
Consider the feasibility of consolidation centres transferring goods to low emission vehicles	2, 5, 6	Long term	<ul style="list-style-type: none"> - Reduced vehicle delivery miles, reduced emissions - Better local environments
Through the FQP develop an increased understanding of the nature (age, vehicle type etc) of the HGV and LGV fleet operating on Merseyside	2, 5	short term	<ul style="list-style-type: none"> - Better understanding of freight related emissions will allow for identification of mitigation schemes for short and long term
Identify and implement essential highway improvements, including local infrastructure improvements and signing, to the Strategic Freight Network	1, 5, 6	Long term	<ul style="list-style-type: none"> - Address multiple objectives - Ensures value for money - Maximises resources - Reduced accident rates - Reduced congestion, improved air quality and lower levels of emissions
Preservation of port access rail alignments	1, 2, 5	Long term	<ul style="list-style-type: none"> - Maintain access paths for future increase rail access to and from the port
Monitor rail freight requirements and lobby as required for both infrastructure requirements and changes to national policy	1, 2, 5, 6	Long term	<ul style="list-style-type: none"> - Increase in distribution of freight by rail to and from the Port of Liverpool - Reduced congestion, improved air quality and reduced carbon emissions - Possible reduced maintenance requirement
Develop a freight noise monitoring program	2, 3	Long term	<ul style="list-style-type: none"> - Actions to reduce noise from HGV movements and deliveries as appropriate

Intervention	Addresses Goals	Short / Long term	Anticipated Outcomes
Make the case for national provision of intermodal freight terminals including protection of existing terminals	1, 2, 5	Long term	- Allow for increase in distribution of freight by rail to and from the Port of Liverpool
To monitor the growth of freight at Liverpool John Lennon Airport	1, 5	Long term	- To assist in planning for support to airport expansion plans
To review the private sector proposals for the development of the Eastern Access Transport Corridor to Liverpool John Lennon Airport	1,5	Long term	- Support for SuperPort proposals - Private sector initiative - Maximise resources - Improved access to LJLA
Improve access to the Port of Liverpool at Seaforth	1, 5	Short term	- Short term sustainable transport improvements
Improve highway access to the Port of Liverpool at Seaforth	1,5	Long term	- Long term network improvements to cater for Post-Panamax and port centric distribution
Work closely with the development of SuperPort	1,5	Short term	- Integrate actions in support of the Port, airport and freight facilities generally
Improved monitoring of HGV and LGV traffic	1,2,5	Short term	- Better understanding of freight related traffic locally
A5300/A562 junction improvement	5	Short term	- Knowsley are examining options to improve access to the south of Liverpool and 3MG and the Mersey Gateway. Long term option will also be considered.