Topic Paper 9 - Transport

Introduction

1 Transport is rarely an end in itself but the utility that it provides is essential to individuals and to economies. People depend on local transport to get to work, to school, to the hospital, shops or GP surgery. Businesses rely on efficient access to suppliers, markets and workforce. Even when people are not travelling, transport can have serious impacts on their health, and enjoyment of the urban or rural environment.

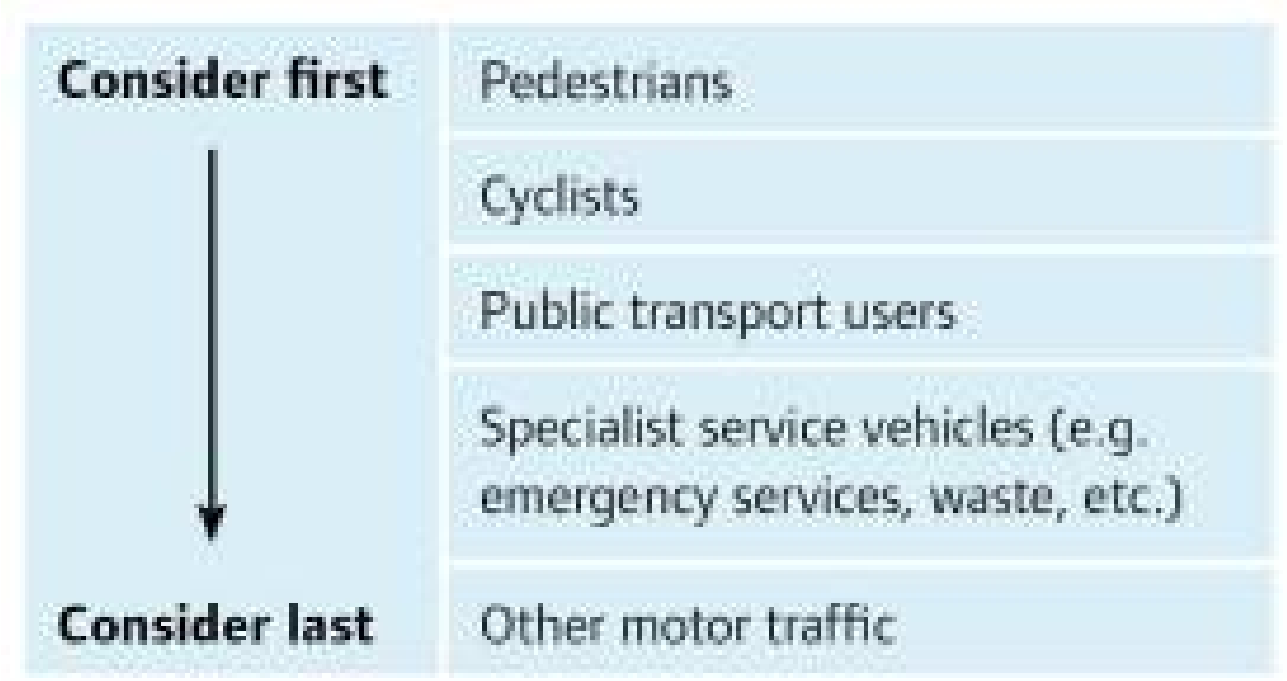
2 There is now stronger recognition of how transport is influenced by, and itself influences, key wider policy areas and priorities. Either directly or indirectly, transport-related issues such as congestion, vehicle emissions, noise, road safety and accessibility cut across wider policy areas such as the economy, environment (including climate change), spatial/land use planning, health, education and tourism. The Bournemouth, Poole and Dorset Local Transport Plan 3 (LTP3) (BBC/BoP/DCC, 2011), upon which this topic paper draws heavily, establishes five strategic goals for the future of transport in the Bournemouth, Poole and Dorset sub-regional area. Sustainable waste and minerals land use planning will need to conform with these goals.

Figure 1 LTP3 Goals

Supporting economic growth	Support a more productive and prosperous economy, by improving the reliability, efficiency and connectivity of transport networks and communications	VALUE FOR MONEY
Tackling climate change	Reduce the overall level of emissions of carbon dioxide and other greenhouse gases from travel and transport and ensure the transport network is resilient	
Better safety, security and health	Reduce the risk of death, injury or illness arising from transport, and promote travel modes that encourage healthy, active lifestyle	
Equality of opportunity	Promote more equal opportunities for everyone, including access to services they need, with the desired outcome of achieving a fairer society	
Improve quality of life	To protect and enhance the quality, local distinctiveness and diversity of Dorset's built and natural environment, and improve individual wellbeing and enjoyment of places	

3 This topic paper outlines the baseline situation for transport in Bournemouth, Poole and Dorset. The transport network has been assessed by mode and ordered as in the user hierarchy set out in Manual for Streets (DfT, 2007). The baseline for each mode is set out in the following sections along with the strategic direction identified in LTP3. These sections also highlight the potential interaction with waste and minerals land use planning which is translated into potential impacts and issues along with sustainability objectives towards the end of the topic paper.

Figure 2 User Hierarchy



Active Travel (Walking & Cycling)

4 Walking and cycling are healthy, affordable, environmentally-friendly and convenient means of getting around, particularly for many local journeys. They help to reduce traffic levels and contribute to a reduction in air and noise pollution, along with the carbon dioxide emissions which contribute to climate change. Local authorities in Bournemouth, Poole and Dorset have been investing heavily in active transport in recent years. However, there are key gaps in walking and cycling infrastructure in urban areas, whilst in rural areas there is a general lack of dedicated infrastructure.

5 Nationally, walking and cycling modes account for a relatively low proportion of journeys, 11% and 4% of journeys to work respectively (ONS, 2001). However, local cycling levels have increased with South East (SE) Dorset achieving an 80% increase in the five years to 2011 (BBC/BoP/DCC, 2011). Yet, cycling is still not a mainstream form of transport and only accounts for approximately 3% of all trips in Dorset (BBC/BoP/DCC, 2011).

6 There are a number of real and perceived barriers to walking and cycling. A lack of dedicated infrastructure, high traffic volumes/speeds, HGV movements and physical barriers such as river or road crossings are significant deterrents to walking and cycling. These barriers must be overcome in order to fulfil the significant potential within the plan area for walking and cycling to become a part of everyday lives and in particular for shorter distance journeys.

7 LTP3 identifies that walking and cycling have the potential to be one of the most effective, value for money solutions to contribute to a wide range of national and local priorities and objectives. The document states that shorter distance commuting trips will be a particular focus due to the unmet potential demand and the greater potential for people switching from cars, which results in wide benefits to society. However, all active travel trip types are supported and encouraged through the strategy.

Waste & Minerals Land Use Interactions with Active Transport

8 Waste and minerals land use planning can affect the use of active transport modes through a number of interactions. These interactions predominantly centre on HGV movements and localised traffic intensification which create real and perceived safety issues that can discourage the uptake of active transport. Other issues such as proximity to popular leisure trails and impact on the Rights of Way network are key considerations for waste and minerals planning.

Bus Network

9 Buses represent a sustainable, low carbon means of transport in Dorset that can reduce the number of private cars trips on the road network along with the traffic issues these bring about. However, the provision of bus services varies considerably between the more urban and rural areas within Bournemouth, Poole and Dorset.

10 There has been strong bus passenger growth in urban areas (Poole) with an increase of 81% between 2003/04 and 2012/13 (Borough of Poole, 2013). In rural areas there has been a reduction with passenger numbers reducing by 7% between 2003/04 and 2012/13 (Dorset County Council, 2013).

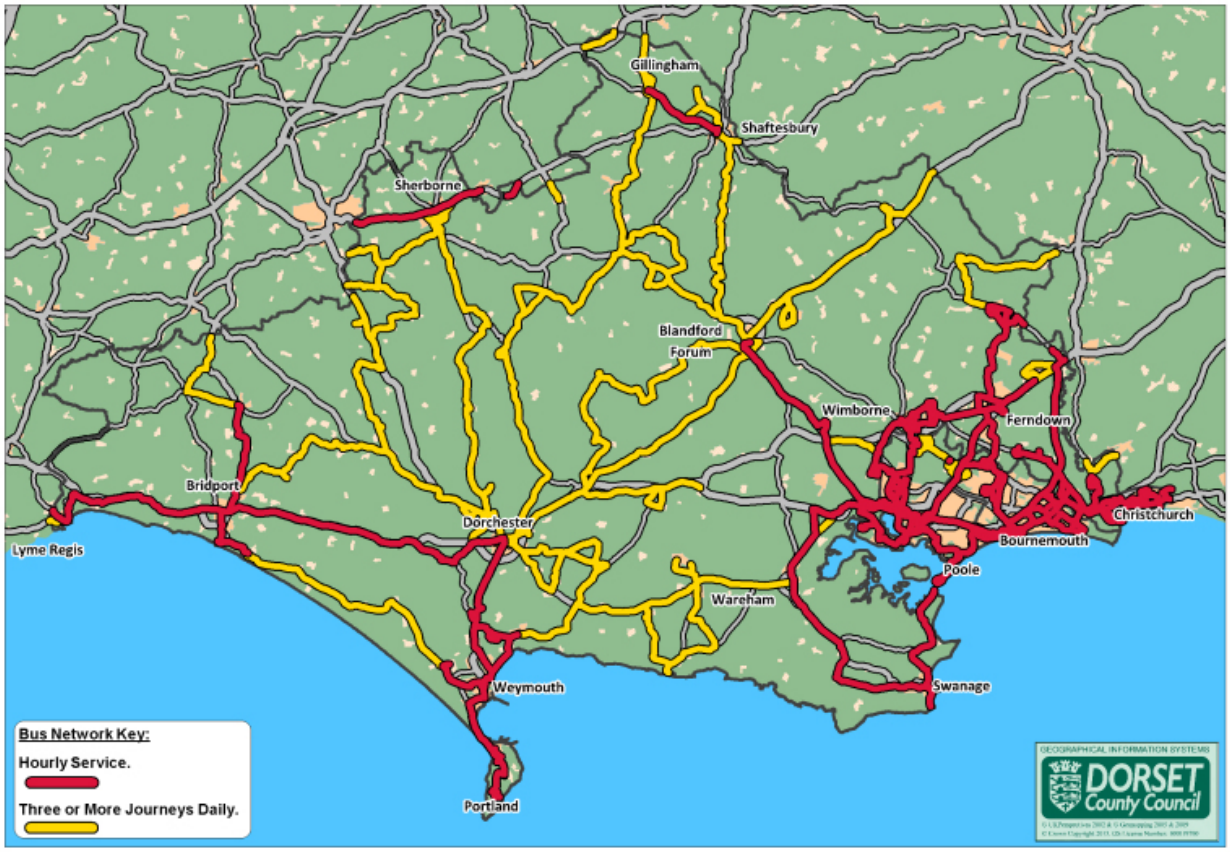
11 Bus services in the urbanised areas are generally good with high levels of frequency on the core corridors. However, recent years have seen reduced frequencies and coverage in the suburban areas. In the more rural areas services are limited and, despite heavy investment and considerable revenue support, passenger transport services fail to attract significant transfer of trips from the private car making rural bus transport expensive to maintain and deliver.

12 There are still some key issues relating to weekend and evening services, frequency, directness, reliability and cost of retaining bus services. In SE Dorset improvements to prime transport corridors have been identified (see road network section). Bus service improvements in SE Dorset will be focused on these corridors linking strategic spatial developments with existing key employment, leisure and shopping areas.

Waste & Minerals Land Use Interactions with the Bus Network

13 The effect of waste and minerals sites on buses centres mainly on localised increased congestion and delay related to waste and minerals developments. Increased delay can make bus services less financially viable and the associated reduction in journey time reliability can discourage users, again affecting the viability of services. Figure 3 shows the key bus corridors in the Bournemouth, Poole and Dorset area which will need to be considered when assessing the impact of waste and minerals developments and the suitability of their locations.

Figure 3 Bus Network



Please Note: The bus network shown is correct as of September 2013 and may change in the future. When assessing potential waste and minerals developments an up-to-date local bus network investigation is advised.

Rail Network

14 Similar to buses, rail transport represents a sustainable, low carbon means of mass rapid transport in Dorset which can also reduce the number of private car trips on the road network along with the traffic issues these bring about.

15 The rail network in Dorset comprises three main line railways and a heritage railway spur. The main line railways are Weymouth to London, Weymouth to Bristol and the Exeter to London line that runs through north Dorset. The heritage railway spur is the Swanage Railway line that runs between Norden Park & Ride and Swanage in Purbeck. Figure 4 shows the rail network in Dorset along with the location of stations on each line. It can be seen in the rail network map that there are large areas of the county which are poorly served by rail. In particular, the west of the county from Dorchester has no services nor does the north east area around Blandford Forum.

Figure 4 Rail Network

16 Rail is a relatively under-used mode of travel in Bournemouth, Poole and Dorset. Rail passenger growth has been low when compared to the national average. Between 2001/02 and 2011/12 Dorset passenger growth was 43.9%, whereas national rail passenger growth was 62.1% (Office of Rail Regulation, 2013) Growth is largely constrained by service frequencies and the gaps in infrastructure to the west and northeast of the county.

17 LTP3 seeks to increase the number of people using rail for commuter and leisure trips, particularly in the SE Dorset area. There are some strategic improvements that are proposed including: the reconnection of the Wareham to Swanage branch line which will provide a direct rail link from Poole and Bournemouth to eastern Purbeck; and, a new rail service between Weymouth and Exeter via Yeovil.

Rail Freight

18 Rail freight has grown significantly in the UK over recent years, which reflects Government policy to seek the transfer of road freight to more sustainable modes of transport. There are numerous reasons why freight should be transported more sustainably, including:

- Road traffic and congestion levels are continuing to rise;
- Rail is more energy efficient than road; and
- Rail has a better safety record than road.

19 The local authorities in Dorset support the transfer of freight from road to rail but recognise the current limitations of the rail network across the county. It is important that ways in which this transfer can be achieved across the LTP area are identified and progressed. Transferring freight from road to rail would alleviate some of the negative impacts caused by road freight, such as congestion, CO_2 emissions, and inappropriate use of routes through rural and residential areas.

20 The existing rail network in Dorset is missing some critical links, and although few opportunities exist on the current network for transporting freight by rail, there is potential for improvement. The exception is the railhead at Wool which provides for the loading and movement of sand to London by train and the direct interchange at the Port of Poole for freight.

Waste & Minerals Land Use Interactions with the Rail Network

21 In terms of interaction with waste land use planning, consideration should be given to the potential to transport minerals and waste by rail and the implications this has for selecting sites. Consideration should also be given to the effect of waste and minerals sites on the road network local to rail stations. Increased local congestion can discourage the use of rail and work against the LTP3 objective to increase rail usage in the plan area.

22 Minerals are transported by rail on a regular basis, albeit in small quantities - up to 100,000 tonnes of sand per year is exported from sidings at Wool station (near Wareham) to London. Limestone has, until the recent economic downturn, been transported from Whatley Quarry (Hanson) near Frome, to a rail depot at Hamworthy on a regular basis. Although the depot is not currently used, imports could resume if the market for stone picks up.

Waterborne Transport

23 There are a number of waterborne passenger transport services in the Bournemouth, Poole and Dorset area. International passenger ferry services operate from Weymouth and Poole which provide connections to the Channel Islands and France. The primary local passenger service operates between Sandbanks and Studland via chain ferry. This is a popular route and summertime demand can often lead to long queues and delay to board the vessel. Other local services focus on leisure day trips rather than functional journeys and are primarily coastal trips. Regular local passenger services are available between Poole and Bournemouth along with Poole Quay and Brownsea Island with less regular journeys to Swanage from Poole Quay. However, these trips do not operate in the winter months. There are other services emanating from Lyme Regis, West Bay and Weymouth which tend to make circular sightseeing tours rather than set down at other landing points and again are primarily spring/summer services.

24 The LTP3 has allocated money for the development of waterborne passenger services which are focused more on functional journeys between landing points rather than circular leisure trips. The purpose of this is to try and remove trips from the road network along the coastal corridor and to reduce the negative impacts these impose.

Waterborne Freight

25 There are two freight ports in the Bournemouth, Dorset and Poole LTP area: the Port of Poole and Portland Port.

26 The Port of Poole is part of the Trans-European Network System. The Port offers conventional cargo handling and containerised Ro-Ro (roll-on, roll-off) cargo handling as well as cross-channel ferry services. The Port is ideally placed to become a regionally significant feeder port, which would

see more goods imported and exported via Poole. With a dedicated rail link, the port also has potential to increase rail freight handling. There is also potential to provide provision for lorry parking facilities which would be compatible with the freight handling role of the Port.

27 Portland Port lies within the Jurassic Coast UNESCO World Heritage Site and is the nearest UK Port to Cherbourg. Commercial fishing remains a key activity within the port and in 1994 a new fish landing quay was constructed to enable the port to comply with EC regulations governing the landing of fish for human consumption. Electrical plug-in sockets have now also been added so that modern fish lorries do not need to run their engines for power during waiting/loading thus cutting down noise problems from the refrigeration generators.

28 Recent port developments have seen the establishment of new freight links to Alderney and to the Channel Islands using a small Lo-Lo (lift-on, lift-off) vessel. From an initial fortnightly service frequency has now risen to weekly.

29 Local Authorities have no statutory responsibility for waterborne related freight activities, and therefore receive no funding towards major schemes which would enable freight movement by water. Accordingly, it is especially important for the local authorities to work with the ports and freight industry to progress any schemes which would increase the amount of waterborne freight. There is potential for Government funding to assist with the move towards the sustainable distribution of freight at both Port of Poole and Portland Port if it can be demonstrated that there would be a reduction in lorry movements on the road network.

Waste & Minerals Land Use Interactions with Waterborne Transport

30 Waterborne freight and the potential development of Poole and Portland ports should be considered when planning for waste/minerals. The Port of Poole deals with imports and exports of minerals from the local area. Approximately 75% of the ball clay extracted from the Purbeck area is exported through the Port of Poole. Opportunities to increase usage of waterborne freight for waste should be explored.

31 Interaction between waterborne passenger transport and waste or minerals land use planning is likely to be very limited. The primary area of concern is the Sandbanks Chain Ferry which cannot satisfy existing summer time demand. Any waste/minerals development that would intensify use of this service would exacerbate the existing issues.

Road Network

32 The private car is the dominant mode of travel in Bournemouth, Poole and Dorset. The dominance of the car is reduced, albeit slightly, in the urban areas of Bournemouth and Poole with a higher proportion of trips undertaken by other modes. The road network in the plan area is characterised by the lack of any motorways and an extensive network of rural B and C class roads.

33 The primary A31/A35 east-west corridor is a critical access route to the wider regional and national network. The A31 links to the M27 near Southampton in the east and the A30/M5 near Exeter in the west. The A31/A35 has sections of dual carriageway and the majority of towns and villages have been bypassed. However, there are still sections of single carriageway and the road passes through some towns and villages, with negative impacts on rural character and local communities.

34 There are two primary north-south links in the plan area. The A37 to the west runs from Dorchester to Yeovil connecting with the A303 and carries on to Bristol in the far north of the region. To the east the A350 connects the Port of Poole with the M4 near Chippenham and has a connection

to the A303 south of Warminster. Both the A37 and A350 are predominantly single carriageway roads which pass through numerous towns and villages, again, negatively impacting on rural character and local communities in each.

35 The other primary routes in Bournemouth, Poole and Dorset are given in the bullet points below:

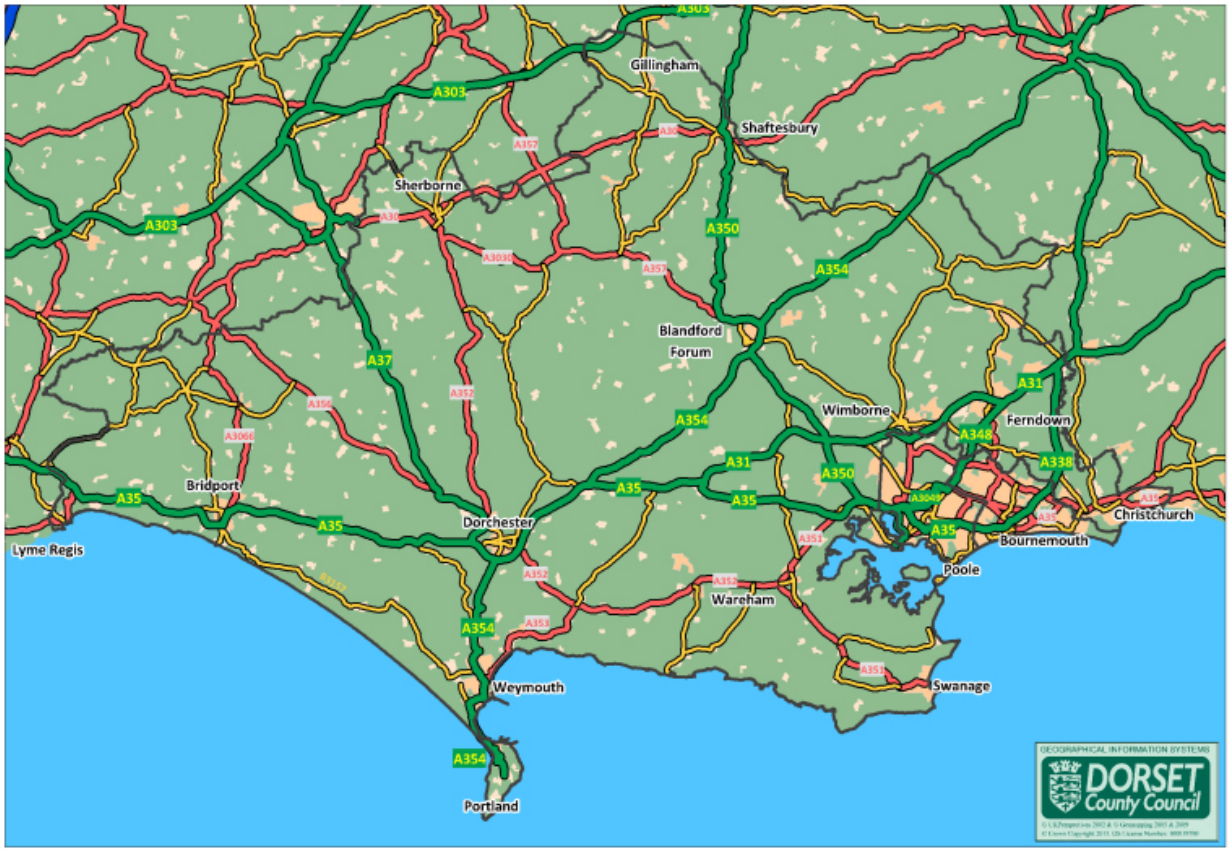
- **A35 Bere Regis to Christchurch.** This route represents the primary access to Poole and Bournemouth from the west. The western extent, up to the Bakers Arms roundabout, is a single carriageway rural A Road with the section beyond Bakers Arms to the Creekmoor junction being dual carriageway. East of the Creekmoor junction the A35 is a single carriageway urban A Road with multiple access points from lower class roads along its length. Western access to the A350 and the Port of Poole is gained from this route making the corridor vital to the proposed expansion of operations at the port.

- **A338 Bournemouth to A31 (Ashley Heath).** The A338 connects to the A35 in Bournemouth providing a direct link from Bournemouth to the A31 in the east. The entirety of the road is dual carriageway with minimal access points which are predominantly grade separated, characterising it as an urban expressway. Bournemouth airport and industrial estate are accessed from this road via the B3073 which makes it a vital transport corridor for the conurbation and the proposed expansion of the airport and industrial estate.
- **A3049/A348 Upton to A31 (Ferndown).** This corridor connects with the A35/A350 at the Holes Bay North roundabout and provides access to the wider strategic road network to the east from the Port of Poole. The corridor is a dual carriageway from the eastern extent to Bear Cross from which point it is a single carriageway to the connection with the A31 in the north. The single carriageway section runs through Ferndown and forms the town high street which creates issues due to conflict with HGV movements from the Port of Poole and other generators along the corridor.
- **A354 Portland to Salisbury.** This road represents the direct access to the A35 and on to the strategic network from Weymouth and Portland which makes it vital to the expansion of Portland Port and other proposed developments in Weymouth and Portland. The section between Weymouth and Dorchester has recently been upgraded with the construction of the Weymouth Relief Road which has significantly reduced congestion between Weymouth and Dorchester. Beyond Dorchester the route links to Salisbury and the A303 via Blandford Forum. The carriageway is generally single lane in each direction, although, the Weymouth Relief Road has a section of dual carriageway climbing lane heading northbound.

36 Within the Bournemouth, Poole and Dorset area there are a number of sub-regionally significant road corridors that, while not considered part of the primary road network, are still important to the movement of people and goods in the plan area. These sub-regionally significant roads are the A351 Lytchett Minster to Swanage; A352 Sherborne to Wareham; B3073 Christchurch to Canford Bottom; and the B3157 Weymouth to Bridport 'Coast Road'. All of these corridors are formed of single carriageway roads which provide important connections between the market and coastal towns of rural Dorset.

37 Figure 5 shows the A, B and C road network of Bournemouth, Poole and Dorset providing a geographical representation of that discussed in the previous paragraphs.

Figure 5 Road Network



Traffic Congestion

38 The impact of traffic congestion is becoming an increasingly important issue, with latest estimates suggesting the cost of congestion to the UK economy being around £20 billion per annum. The primary road network in Dorset is under pressure, low traffic speeds can occur during peak hours and particularly in the summer months with the influx of visitors to the county during this period.

39 Traffic congestion is most pronounced around the SE Dorset conurbation with much of the primary network suffering congestion during the morning and evening peak periods throughout the year. The A31/A35 in particular is a critical access route to the wider regional and national network but suffers severe capacity issues. The A350 which connects the Port of Poole with the A303 and M4 is subject to some congestion within Dorset. There are a number of key junctions which are at capacity during peak hours, predominantly in the Poole area but also around Blandford and within the un-bypassed villages along the length of the corridor.

40 The A351 junction with the A35 (Bakers Arms Roundabout) is a significant point of congestion. There is a high demand for travel between south eastern Purbeck and the SE Dorset conurbation and most of this traffic is funnelled through this junction, leading to long delays in the morning and evening peak periods.

41 With the completion of the Weymouth Relief Road traffic congestion on the A354 between Weymouth and Dorchester has been significantly reduced. However, there are still some delays during the morning and evening peaks which are exacerbated by visitor traffic during the summer

months. Traffic congestion is less of an issue to the far west of the county, delay on the A35 between Dorchester and the county boundary is generally confined to the summer months and is directly related to increased visitor traffic during this period.

Traffic Growth

42 The overall rate of traffic growth has slowed generally in recent years. However, some key routes have experienced significant increases, and other routes decreases. Traffic modelling of expected growth to 2026 in SE Dorset indicates that, without intervention, car trips will increase by 12% in the AM peak (BBC/BoP/DCC, 2011). This would lead to a number of the key routes and junctions previously discussed further exceeding capacity, potentially resulting in a 95% increase in delays and a fall in average traffic speeds by up to 25% (BBC/BoP/DCC, 2011).

Road Safety

43 Road traffic collisions where someone is killed or seriously injured cost the Dorset economy millions of pounds each year, but no cost can truly identify the tragic impact on the individuals and families concerned and much of the harm and cost is avoidable.

44 The coalition Government's current road safety strategy, the "Strategic Framework for Road Safety" (DfT, 2011) does not set national road casualty reduction targets but there are key indicators against which local highway authorities' casualty reduction progress will be compared.

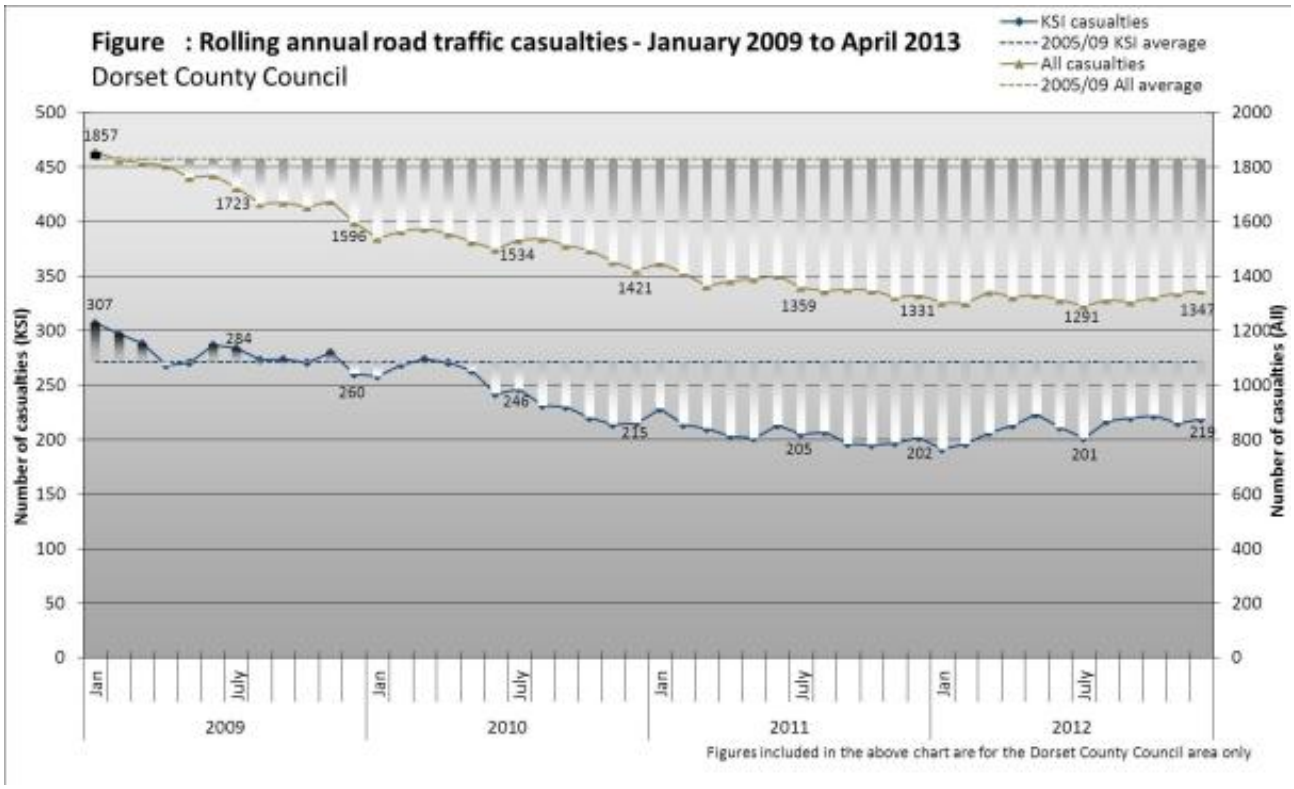
45 The Department for Transport's (DfT) centrally projected forecast is for a 40% reduction in the number of people killed or seriously injured (KSI) by 2020, nationally, based on the five year average for the period 2005 to 2009.

46 The three local authorities across greater Dorset have adopted this performance indicator as their official headline casualty reduction target in the joint LTP 3 published in July 2011. The multi-agency Dorset Strategic Road Safety Partnership (DSRSP) has also adopted the same target to reflect a co-ordinated approach across the wider Dorset.

47 The last four years has seen the successful development of the DSRSP and its tactical and operational arm, Dorset Road Safe. It delivers a smarter, evidence-led and well-coordinated approach involving strategic assessment and problem profiling of road users using all available evidence.

48 During the same period there has been an encouraging downward trend in the number of KSIs in Dorset. Figure 6 shows the rolling annual number of KSIs together with all casualties to the end of 2012 against the 2005-09 average base. Dorset's KSI figure for calendar year 2012 was 19% below the 2005-09 base figure, which is ahead of target.

Figure 6 Traffic Casualties



Please Note: This graph shows data for Dorset only, Bournemouth and Poole are not included.

49 Between 2010 and 2012, heavy goods vehicles accounted for just 1.5% of all vehicles involved in road traffic collisions within the plan area (Stats19, 2013). In Dorset, there are a large number of people killed and seriously injured on roads in rural areas where the speed limit is above 50mph. In addition, the number of more vulnerable road users (pedestrians and cyclists) killed or seriously injured on Dorset's roads has increased or remained roughly the same during the last 5 years, not following the general downward trend.

Road Network Strategy

50 The strategic direction for the road network during this plan period is to support economic growth while reducing greenhouse gas emissions, improving road safety and providing access to opportunities for all. This will be achieved through a wide range of measures which can be categorised roughly into managing demand and network improvements.

51 Demand management measures seek to reduce the demand for road space by encouraging people to use other modes of transport; re-time their journey to avoid peak demand periods; or reconsider travelling if at all possible. Demand management measures focus on information provision and will be delivered through the Travel Dorset web-based platform along with more traditional paper based information.

52 Network improvements are typically infrastructure improvements which can be aimed at increasing capacity, increasing accessibility or improving road safety. The scope for network improvements in Dorset is limited due to funding constraints and environmental designations which make construction of new infrastructure difficult to achieve. Notwithstanding this, there are still a number of strategic

network improvements planned for the current plan period and improvements linked to development will continue to be delivered as and when required. The strategic improvements identified for this plan period are given in the following bullet points.

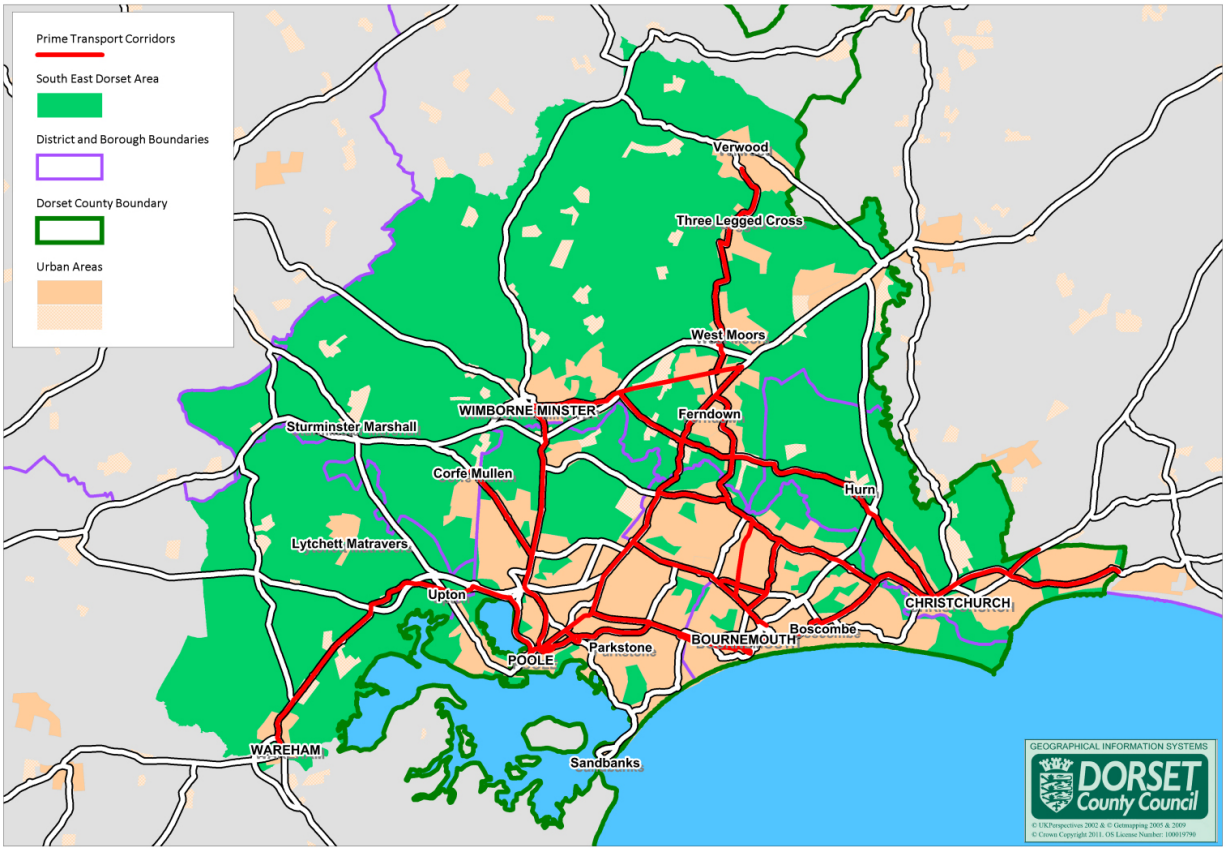
- **B3073 Parley Lane Improvements** – Blackwater Interchange to Parley Cross via Bournemouth Airport;
- **Poole Bridges Regeneration Initiative** – Town network and Poole Bridge approach, gyratories / links;
- **A31 Ringwood Westbound Widening** (Highways Agency);
- **A31 Trunk Road Dualling** – Ameysford to Merley (Highways Agency);
- **Bakers Arms Roundabout Improvements**;
- **A338 Structural maintenance**;
- **Dorchester Town Environmental Improvement Plan (DTEP)**;
- **Monkey's Jump Roundabout Improvements** (highways Agency); and
- **Prime Transport Corridors** – SE Dorset area.

Prime Transport Corridors

53 The concept of Prime Transport Corridors that was developed for the LTP2 has been integrated into a number of Local Plans as a strategic planning tool to better relate land use to transport provision (see Figure 7). The Prime Transport Corridors will provide a strong framework in the SE Dorset conurbation that links some of the strategic spatial developments. Additionally, sustainable housing and employment development will be focused along the corridors, linked to neighbourhood retail / service centres and local public transport hubs. This will also support smaller developments that themselves help to reinforce the role and viability of the transport corridors, as well as delivering locally distributed housing, jobs and community facilities.

54 The corridors also seek to address issues of congestion and pollution through urban transport renewal and improvement schemes, including the development of Quality Bus Corridors. Junction improvements along with the re-allocation of road space will create opportunities for walking and cycling improvements and bus priority measures. The corridors would also support potential Park and Ride facilities.

Figure 7 Prime Transport Corridors



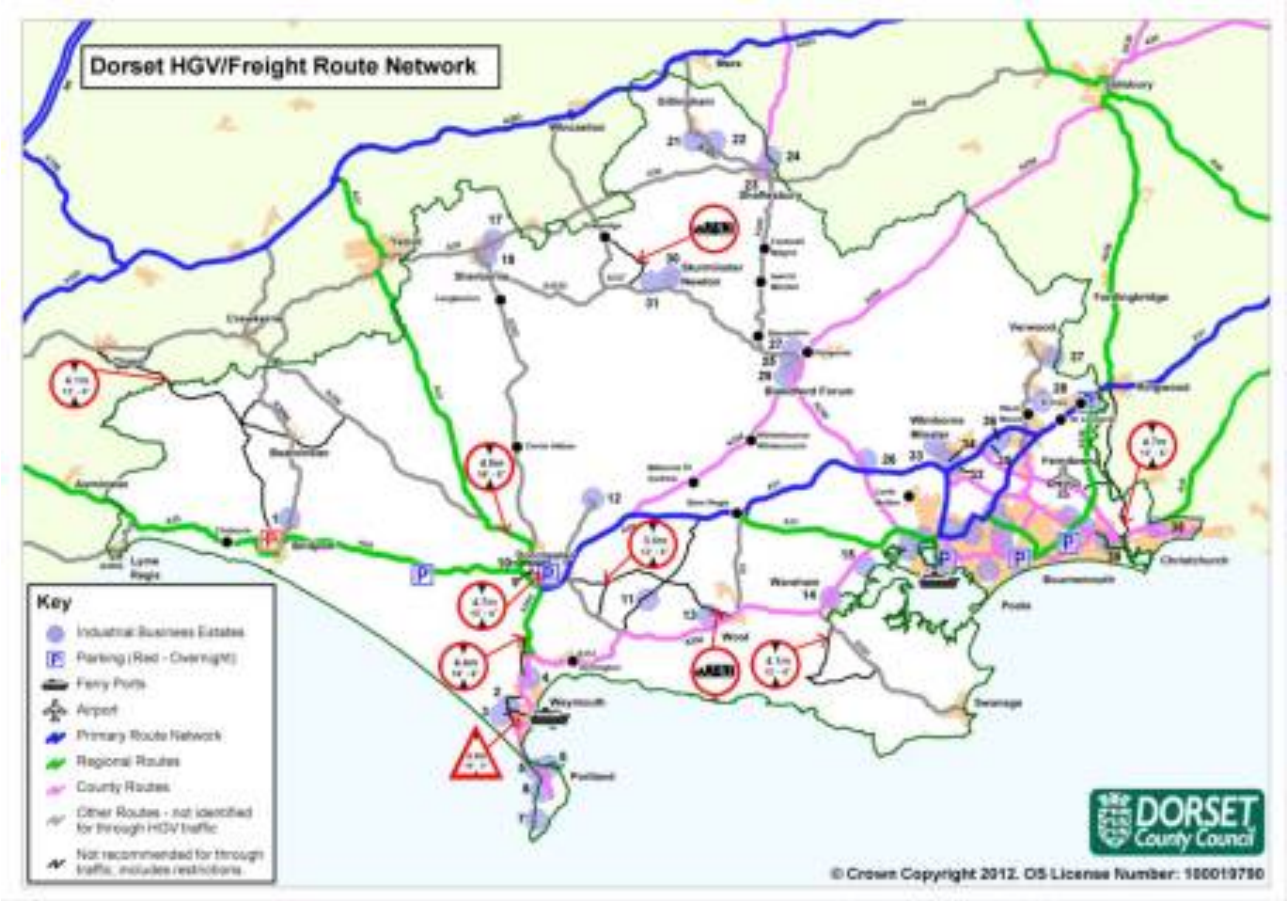
Road Freight

55 The movement of freight from, through and into Dorset is a vital part of transport in the sub-region and is paramount to its economic well-being. The efficient operation of freight transport is vital for the local economy to thrive and grow. Set against this are the environmental concerns and perceived road safety risks resulting from the passage of Heavy Goods Vehicles (HGVs – over 7.5 tonnes).

56 The main freight generator is the Port of Poole, although Bournemouth Airport is the busiest freight airport in the South West and there are significant flows of freight through the plan area. Minerals extraction also generates north-south flows of aggregates on the A350 and A37, and from Hampshire along the A35. The vast majority of freight is transported by road, and this trend is expected to continue due to rail infrastructure constraints. Road freight causes local issues of noise, vibration and pollution, particularly on routes that pass through settlements.

57 In Dorset, HGVs are encouraged to use the strategic highway network comprising trunk roads or other primary routes, together with county distributor roads. Trunk roads are suitable for HGV use and should be used as far as possible, including for short, local journeys. Figure 8 shows Dorset's HGV/Freight route network including routes where freight movements are suitable along with those where HGV movements are not recommended.

Figure 8 Freight Network



58 Areas where traffic congestion and high volumes of freight movements occur can experience local air pollution. For example, in Dorset the busiest HGV routes through settlements are:

Table 1

Road No.	SETTLEMENT	OGVs (HGV+MGV)
A37	Grimstone (2007)	1200
A352	Wool (2008)	1135
A348	Longham	1020
A348	Ferndown	800
A35	Chideock/Morecombelake	660
A354	Pimperne (2007)	600
A30	Kingston Magna	500
A350	Spetisbury/Charlton Marshall	470

A352	Owermoigne (2007)	410
A357	Shillingstone/Durweston	360
A351	Corfe Castle	310
A357	Stalbridge (2005)	300
A354	MilborneSt.Andrew (2006)	300
B3347	Winkton/Burton (2008)	300
A350	Iwerne Minster/Fontmell Magna (2008)	270
B3072	West Moors	250
A337	Highcliffe	240
A352	Broadmayne (2008)	210
A354	WinterborneWhitechurch (2008)	200
A3066	Beaminster (2008)	200
A352	Longburton (2008)	160
B3143	Piddletrenthide	110
B3390	Crossways	90
A356	Maiden Newton (2008)	80

Please Note: Data relates to typical 12hr flows recorded on one day only in the last three years. The data above is from the 2011 Annual Statistics Report (DCC, 2011).

59 One of the key issues that Dorset has is that many of the major routes are already congested leaving limited or no capacity for extra HGV movements. Therefore, to support the local economy it is imperative that improvements are made to the reliability and efficiency of freight transport in Dorset. This will be achieved by maximising the use of sustainable modes of freight transport, supporting a strong local economy and minimising adverse impacts upon our environment and people.

60 Recognising the need to support the economy through freight movements and also the need to minimise the negative impacts of road freight on the environment and local communities, LTP3 includes a freight strategy as one of its supporting documents. This is an important document for anyone involved in the planning of waste land uses due to the HGV/freight movements likely to be involved. The freight strategy builds on the goals outlined in LTP3 (Figure 1) by developing a set of objectives for the future of freight in Bournemouth, Poole and Dorset. These objectives are:

- To provide for the efficient, safe and sustainable distribution of freight to industries and consumers into, out of, and around, Dorset;
- To protect communities and the environment from negative impacts arising from freight distribution, in terms of emissions, noise, visual intrusion and physical damage;
- To reduce the use of inappropriate routes to reach destinations;

- To improve education and awareness of freight issues in Dorset for both the freight industry and local communities; and
- To promote and encourage sustainable transportation of freight on rail where opportunities arise.

61 It should be noted that it is recognised that whilst one of the objectives of this strategy is to increase the amount of freight which is transported by more sustainable forms of transport, such as rail, most goods will continue to be transported by road.

Waste and Minerals Land Use Interactions with the Road Network

62 Interaction with the road network must be considered fully when planning for waste and minerals sites. Minerals and waste developments like most other types of development will impose new trips on the road network and/or displace existing trips leading to localised traffic growth. Traffic growth on already congested areas of the network will exacerbate existing congestion and delay and should be avoided. However, this may not always be achievable and developer contributions toward highways capacity improvements may be required to accommodate this growth.

63 The identified Prime Transport Corridors should also be considered. These corridors are vital for encouraging people in SE Dorset to use more sustainable modes of transport. Waste developments that conflict with the objectives of these corridors will need to be reassessed or at-least mitigate any impact.

64 Most waste and minerals developments will create growth in HGV/freight trips. Proliferation of HGV movements on access routes through towns and villages that will exacerbate existing conflict issues should, where possible, be avoided. If this is not possible developer contributions may be required to mitigate these impacts. When investigating sites that would require access via built up areas, thought should be applied fleet selection – particularly low emission, fuel efficient vehicles.

65 When identifying potential sites, access routes on to the strategic road network must be considered. Dorset has a vast network of rural roads which are not suitable for HGV use and should be avoided as access routes onto strategic roads. Consideration should be also given to the potential to transport minerals and waste by rail and the implications this has for selecting the location of sites.

66 The effect on road safety must be taken into account when considering suitable locations for sites. Site accesses must be constructed to the required standard with sufficient visibility and traffic control measures appropriate to the size of the development and the number of anticipated vehicle movements. In addition, the effect on the local road network near the site and access to the main strategic road network should also be considered, especially at known collision cluster sites or on routes with a high number of collisions.

Air Quality and Noise (Transport)

67 Air pollution and noise pollution are both linked to high levels of traffic and particularly HGV use. Within the plan area there are currently four designated Air Quality Management Areas where the measured levels of pollutants are above acceptable levels. These are located at Wimborne Road, Winton (Bournemouth), A35 Chideock (Dorset), High East Street, Dorchester (Dorset) and Commercial Road, Poole. The immediate focus of LTP3 is to reduce the levels of pollution in these four areas, by adopting measures that include seeking to reduce the impact of HGVs on air quality, particularly on unsuitable routes. Similarly the authorities will focus on reducing noise levels from transport in the DEFRA Noise Action Plans and in particular, the First Priority Locations and Important Areas identified through the process associated with the Environmental Noise Directive.

Waste and Minerals Land Use Interactions with Air Quality and Noise

68 Waste and minerals land use planning interacts with local air quality and noise levels from transport, predominantly where there may be an increased number of HGV movements. Locations of declared Air Quality Management Areas and First Priority Locations / Important Areas in Noise Action Plans should be taken into consideration during planning, so that the resulting levels of HGV traffic do not exacerbate the situation.

Summary of Relevant Policy Documents – Transport

N.B. More detail on these and other policy documents is included at the end of this topic paper.

Table 2 Key messages from relevant policy

Policy Documents	Relevance to Waste and Minerals Plans
International Policy • Roadmap to a Single European Transport Area: Towards a Competitive and Resource-Efficient Transport System. (EU, 2011)	• Efficient transport networks are vital to the health of the local economy and road congestion/delay can severely impact this. Waste and minerals land use planning will need to minimise potential congestion related to developments. • There is a need to reduce the greenhouse gas emission from transport with an aim to decarbonise the transport network by 2050. These policy documents stipulate that all development should help to achieve this goal. • An identified key method to reduce congestion and emissions from transport is to simply reduce the need to travel. Waste and minerals land use planning should seek to reduce waste mileage, however it should be noted that minerals can only be worked where they are found and choice over sites will be limited. • Transportation policy seeks to facilitate the shift of road freight to other modes. Waste and minerals land use planning should consider the potential to use other of methods of transporting waste freight. • There is an on-going imperative to increase the safety of the transportation network. Waste and minerals developments must not negatively impact safety, particularly for vulnerable road users. • The transport network can impact local communities both positively and negatively. Waste and minerals land use planning must
National Policy • National Planning Policy Framework (NPPF) (DCLG, 2012) • Creating Growth, Cutting Carbon: making sustainable local transport happen. (DfT, 2011)	
Local Policy • Bournemouth, Poole and Dorset Local Transport Plan 3 (LTP3). (BBC/BoP/DCC, 2011)	

	seek to minimise any negative impacts and aim to reduce existing negative impacts • The transport network can impact heavily on the natural environment. It is important that all development relating to transport seeks to protect and enhance the natural environment.

Issues Relevant to Transport

- Waste requires transportation from source and often from one site to another, generating trips including a high proportion of HGV trips.
- Minerals extraction requires transportation from extraction site
- Public access to household recycling centres generates a high number of localised private car trips.
- During peak periods, trip demand for certain areas of Dorset's road network exceeds capacity leading to congestion, delay and journey time unreliability.
- The influx of visitors to Bournemouth, Poole and Dorset during the spring and summer months intensifies trip demand and demand related transport issues, particularly those relating to congestion and road safety.
- All internal combustion engines emit air pollution and noise, particularly the larger diesel engines in HGVs.
- There are Air Quality Management Areas (AQMAs) designated within the plan area, largely due to traffic congestion and/or a high proportion of HGV movements (see Air Quality Topic Paper).
- HGVs are larger and have less visibility than other road vehicles, particularly in the envelope vulnerable road users inhabit which can lead to road safety issues.
- Many of Dorset's rural roads are unsuitable for HGV traffic.
- Parts of the strategic road network pass through towns and villages creating issues for local communities in terms of air quality, amenity and road safety which can be heavily impacted by increases in HGV trips - particularly in sensitive rural areas and designated AQMAs.
- There is little scope to increase usage of modes alternative to road for waste transportation.

Potential Transport Impacts Related to Minerals & Waste Land Use Planning

- Localised increases in HGV movements related to waste and mineral sites can create real and perceived safety issues that discourage the use of walking and cycling.
- Waste and mineral sites located near to leisure trails can discourage their use due to air quality issues.
- Localised congestion and delay can affect journey time reliability of bus services affecting patronage and thus financial viability.
- Localised congestion and delay near to rail stations can affect people's decision to use this mode by increasing overall travel time.
- Any increase in transportation movements related to waste using the Sandbanks Chain Ferry will exacerbate existing severe summertime delay.
- Minerals and waste development may lead to changes in local travel patterns that may intensify existing issues such as congestion or road safety. Changes to travel patterns must be estimated and potential impacts mitigated.
- Waste and minerals development may lead to increased congestion and delay on the identified Prime Transport Corridors making it more difficult to achieve the objectives of this key LTP policy.
- Waste and minerals developments are likely to increase HGV trips which can impact adversely on road safety, air quality and noise while increasing community severance – particularly in those towns and villages on the strategic road network.
- HGV movements on unsuitable rural roads can create severe road safety and delay issues whilst negatively impacting tranquillity through noise and air quality issues.

Suggested Sustainability Objectives

To minimise the negative impacts of waste and minerals transport on the transport network, mitigating any residual impacts.

To support and encourage the use of sustainable transport modes, imposing no unmitigated negative impacts on them.

….. and Broad Indicators

"To what extent does the strategic option, objective, strategy or policy..."

- Reduce the negative impacts associated with minerals and waste transportation on the transport network as a whole?
- Reduce the impact of road traffic, in particular HGV trips, on local communities?
- Reduce the vehicle kilometres travelled for the transportation of minerals and waste?
- Support and encourage the use of sustainable modes of transport?
- Support and encourage the use of low emission vehicles for the transportation of waste and minerals?
- Support the carbon reduction targets set at the international, national and local level?
- Support the road casualty reduction indicators set at the international, national and local level?
- Facilitate the use of rail or waterborne freight for the purpose of transporting waste and minerals?
- Accommodate the efficient movement of people, goods and services thus supporting sustainable economic growth in the Bournemouth, Poole and Dorset area?

Table 2 - Relevant Policy Documents – Transport

Table 3

Roadmap to a Single European Transport Area: Towards a Competitive and Resource-Efficient Transport System – European Commission (March 2011)

This white paper articulates the European Commission's vision for the future based upon a study of developments in transport sector and its future challenges. This vision is then used to identify the EC's goals in line with their vision along with policy initiatives and key measures that will need to be implemented to achieve the goals of the EC with regards to transport. The vision takes the form of four statements which are replicated below:

"Growing Transport and supporting mobility while reaching the 60% emission reduction target";

"An efficient core network for multimodal intercity travel and transport";

"A global level-playing field for long-distance travel and intercontinental freight"; and

"Clean urban transport and commuting"

The goals set out in this white paper are numerous covering many aspects of transportation in Europe. Those goals most closely related to waste land use planning are given in the bullet points below.

- Halve the use of 'conventionally-fuelled' cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO_2-free city logistics in major urban centres by 2030.
- 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport by 2030, and more than 50% by 2050, facilitated by efficient and green freight corridors.
- By 2050, connect all core network airports to the rail network, preferably high-speed; ensure that all core seaports are sufficiently connected to the rail freight and, where possible, inland waterway system.
- By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in all modes of transport.
- Move towards full application of "user pays" and "polluter pays" principles and private sector engagement to eliminate distortions, including harmful subsidies, generate revenues and ensure financing for future transport investments.

These goals are then used to identify policy initiatives and measures that member states should implement in their national transportation planning policy and infrastructure development. These policy initiatives and measures are not replicated here. However, their content should be examined when planning for waste as these set the direction for transport policy and infrastructure delivery in the UK.

Implications:

The vision and goals of the EC should be considered when planning for waste and minerals. As a member of the EC the UK government is committed to achieving these goals. Sustainable land use planning that respects and supports them is vital in ensuring the UK's attainment of these stringent goals.

National Planning Policy Framework (NPPF) Department for Communities and Local Government (March 2012)

The National Planning Policy Framework (NPPF) sets out the UK Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

The NPPF carries with it a central theme of a presumption in favour of sustainable development. The document recognises there are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- **Economic role** – Contributing to building a strong, responsive and competitive economy;
- **Social role** – Supporting strong, vibrant and healthy communities; and
- **Environmental role** – Contributing to protecting and enhancing our natural, built and historic environment.

The UK government appreciates that transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. The NPPF states that the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel.

Building upon the identification that the transport system must be balanced in favour of sustainable transport the NPPF outlines a number of considerations for plan makers and developers with regards to land use and transport. The key considerations relevant to waste planning are given below:

- Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.
- Local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development, including large scale facilities such as rail freight interchanges, roadside facilities for motorists or transport investment necessary to support strategies for the growth of ports, airports or other major generators of travel demand in their areas.
- All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:
    - The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
    - Safe and suitable access to the site can be achieved for all people; and
    - Improvements can be undertaken within the transport network that effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

- Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.
- Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan.

Whilst this document provides a good summary of the content of the NPPF with regards to transportation, it is suggested that the transport chapter of the NPPF is fully interrogated when planning for waste land uses.

Implications:

The NPPF will be a key driver in the preparation of the Waste and Minerals Plan and, as a material planning consideration, will be instrumental in determining planning applications. The objectives and considerations of the NPPF in relation to transport will be reflected when planning.

Creating Growth, Cutting Carbon: making sustainable local transport happen – Department for Transport (January 2011)

This White Paper articulates the Department for Transport's (DfT) vision for the future of transport and outlines the measures required to achieve their vision. Thus forming part of the UK government's overall strategy to tackle carbon emissions from transport. The DfT's vision for transport is replicated below:

To achieve this vision, the DfT are looking at a number of measures across a 40 year timeframe to 2050. In the long term, the electrification of the UK road transport fleet is expected to make a significant contribution to decarbonisation of the UK transport network. However, the Government appreciates that this will take time to realise and that more immediate measures are required to achieve carbon reduction targets and tackle the impact of congestion on the economy.

To meet the more immediate need for carbon reduction, tackling congestion and improving public health, the DfT has identified local transport as offering the short term opportunity to address these issues. Principally by encouraging people to make more sustainable travel choices for shorter journeys, which is translated in to the DfT's priority for local transport:

"Encourage sustainable local travel and economic growth by making public transport and cycling and walking more attractive and effective, promoting lower carbon transport and tackling local road congestion."

The white paper aims to facilitate delivery of this priority for local transport through two clear methods. Firstly, by making changes to governance that puts decision making and funding back in the hands of local people; and secondly, by supporting sustainable transport initiatives that meet this priority. A number of sustainable transport initiatives are identified in the document and are given in the bullet points below.

- Enabling Sustainable Travel Choices;
- Supporting Alternatives to Travel;
- Encouraging Walking and Cycling (Active Travel);
- Making Public Transport More Attractive;

- Promoting Car Sharing and Car Clubs;
- Implementing Traffic Management Measures;
- Securing Freight Mode Shift; and
- Encouraging Eco-Driving for HGV and Bus Drivers.

Implications:

Sustainable waste and minerals land use planning will need to conform to the DfT's vision for transport and facilitate the priority for local transport. This will be achieved by supporting and encouraging the sustainable transport initiatives set out in this white paper.

The Strategic Road Network and the Delivery of Sustainable Development - Department for Transport (September 2013)

This circular sets out the way in which the Highways Agency (HA) will engage with communities and the development industry to deliver sustainable development and economic growth, whilst safeguarding the primary function and purpose of the strategic road network.

The information contained in the document gives clear guidance for plan makers and developers with regards to impact of development on the strategic road network, stating that:

"Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed. However, development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

However, even where proposals would not result in capacity issues, the Highways Agency's prime consideration will be the continued safe operation of its network.

Local authorities and developers will be required to ensure that their proposals comply in all respects with design standards. Where there would be physical changes to the network, schemes must be submitted to road safety, environmental and non-motorised user audit procedures, as well as any other assessment appropriate to the proposed development."

Implications:

Sustainable waste and minerals land use planning and any future developments that may impact on the strategic road network will need to involve discussions with the Highways Agency. The HA will need to be satisfied that any impacts, once mitigated, will not present a severe detriment to the network.

Action for Roads: a network for the 21st century - Department for Transport (July 2013)

This command paper highlights the significant challenges faced by the UK's road network, reiterates the need for investment and sets out the Government's detailed plans to improve management of the highway network.

The document states the investment priorities for the government on the road network which are replicated in the bullet points below. These investment priorities centre on the strategic road network of which there is a limited amount in the plan area. There are no major schemes identified for Bournemouth Poole and Dorset. However, there are schemes around Southampton on the M27 / M3 corridor which will improve connectivity with London and could have a bearing on the development of the Waste Local Plan.

- Major scheme investment plan for the strategic road network.
- Creating a 'greener' more sustainable network.
- Improving the management of the network.
- Supporting local roads.
- Greater independence for the Highways Agency.

The investment priorities relating to creating a 'greener' more sustainable network and supporting local roads bear more relation to waste land use planning in Bournemouth, Poole and Dorset. Within these priorities, note is made of the need to support the decarbonisation of road transport; create a high quality network for walking and cycling; increase safety on the network; and, maintain the highway asset to maximise efficiency. Waste land use planning will need to support these investment priorities to ensure maximum value for money is achieved from public spending

Implications:

The preparation of the waste and minerals plan and any future developments will need to take account of the investments set out in this document. In particular, the government's propriety to decarbonise the network, support walking and cycling, improve road safety and keep the highway network in a good state of repair.

National Infrastructure Plan – HM Treasury / Infrastructure UK (November 2011 – Revision)

This National Infrastructure Plan sets out a new strategy for meeting the infrastructure needs of the UK economy. The Plan brings together the first ever comprehensive cross-sectoral analysis of the UK's infrastructure networks and sets out a clear pipeline of over 500 infrastructure projects. Delivering these projects will ensure that the overall performance of the UK's infrastructure is maintained and improved over time.

Within the document, the Government articulates a set of ambitions for improving infrastructure performance. The ambition for transport infrastructure is stated as follows:

"Improving the performance, capacity, connectivity and environmental impacts of the UK's transport networks including maintaining the status of the UK as an international hub for aviation."

This ambition for transport is further defined in the document with a suite of four more detailed ambitions for transport infrastructure:

- To keep Britain moving by improving the capacity, performance and resilience of roads, railways and international gateways, making smarter use of existing infrastructure and tackling performance problems.
- To improve integration between different modes of transport, improving people's choice as to how they travel and facilitating movement of freight from road to rail and water where this is viable and appropriate;
- To support the move to a low carbon economy, reducing the environmental impacts of the transport system so that transport greenhouse gas emissions are falling, as measured in the Department for Transport business plan impact indicator, and supporting cost effective delivery of the UK's carbon budgets; and
- To improve connectivity and capacity between main urban areas and between them and international gateways, to deal with longer term capacity constraints, by delivering a series of projects to enhance network capability, including reducing journey times and improving interchanges.

Implications:

Sustainable waste and minerals land use planning and development will need to support the UK Government's ambitions for transport. The waste and minerals plans must respect these ambitions and strive to help achieve these stated goals.

Bournemouth, Poole and Dorset Local Transport Plan 3 (LTP3) – Bournemouth Borough Council, Borough of Poole and Dorset County Council (April 2011)

The Bournemouth, Poole and Dorset Local Transport Plan (LTP) sets out the objectives, policies and targets for improving transport over the next 15 years, working with businesses, voluntary bodies, local communities and other authorities. It covers all modes of transport (including walking, cycling, public transport, car based travel and freight), the management and maintenance of the highway network, and the relationships between transport and wider policy issues such as the economy, environment, health and social inclusion.

The 15 year vision for the LTP3 reflects the important role that transport will continue to have on people's everyday lives in the future. It is consistent with and builds upon the longer term aspirations and wider priorities of the three councils. The vision for LTP3 is:

"A safe, reliable and accessible low carbon transport system for Bournemouth, Poole and Dorset that assists in the development of a strong low carbon economy, maximises the opportunities for sustainable transport and respects and protects the area's unique environmental assets"

In order to ensure transport improvements contribute towards the vision for 2026, the LTP3 is based around a set of 5 priority goals along with a sixth overarching goal. These goals represent the desired outcomes for transport in Dorset and are as follows:

- Supporting economic growth;
- Tackling climate change;
- Better safety, security and health;
- Equality of opportunity;
- Improve quality of life; and
- Value for money as the sixth overarching goal.

Taking into account the challenges for transport in Bournemouth, Poole and Dorset over the next fifteen years, LTP3 builds upon these goals by identifying seven key strategy measures consisting of fourteen strategy elements that aim to overcome these challenges and achieve the LTP3 goals. These provide the basis for the policies and improvement solutions set out in LTP3. The seven strategy measures are given in the bullet points below.

- Reducing the need to travel;
- Managing and maintaining the existing network more efficiently;
- Enhancing choices for active travel and “greener” travel choices;
- Public Transport alternatives to the private car;
- Car parking measures;
- Travel safety measures; and
- Strategic Transport Improvements.

Implications

The LTP3 should be thoroughly interrogated when planning for waste and minerals sites. This document provides the basis for all transport development management decisions and is vital for securing sustainable waste development in the Bournemouth, Poole and Dorset area.