SDNPA Transport Study – Phase 1 Report

Tim Pharoah and Keith Buchan - MTRU

Final Report March 2013

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Executive Summary

This report is based on research undertaken by Keith Buchan and Tim Pharoah of MTRU into the availability and quality of transport data and its relevance to transport policy in the South Downs National Park (SDNP). The SDNPA has primary responsibility for spatial planning within the National Park, and this involves consideration of accessibility and transport in the preparation of the Local Plan and also the development control process. However, the main responsibility for transport planning and highways lies with the Local Transport Authorities (LTAs), namely the counties of Hampshire and East and West Sussex, plus Brighton & Hove Unitary Council. Consequently, actions and projects will be via partnership projects with the LTAs and drawing in the Highways Agency, Network Rail, train operating companies and bus operators.

The work was commissioned by the South Downs National Park Authority (SDNPA) in the Autumn of 2012 as Phase 1 of the SDNP Transport Study. This report is one of a number of deliverables, which also include a transport data Inventory, a supplementary list of data sources, and a suite of digital files and folders containing GIS mapping and original data source documents in Word, PDF or Excel format.

Thanks are extended to the local authorities, who hold much of this information, for their assistance in producing the Inventory. It has been set up so that it is now easy to add to and amend in future.

In terms of data and public information, the study has found many examples of good practice, and the SDNPA should take a role in ensuring that this is used to raise standards generally throughout its area. This will have benefits for those who visit the area as well as those who undertake planning functions within it.

Policy issues arising from or informed by the reviewed transport data are discussed in the report as well as aspects of the data relating to coverage, suitability and consistency. Particular attention is paid to key data areas such as accessibility, public transport, and road traffic. In addition, recommendations and suggestions are made as to the focus and scope of Phase 2 of the SDNP Transport Study, and a summary of these is provided in Appendix A. For the policy development work that is to follow, key existing plans have been reviewed for their transport policy content, and summarised in Appendix B.

Of the diverse policy implications arising from this Phase 1 of the Transport Study, five in particular are deserving of early attention, in view either of their importance to the sustainable transport objective, or of their susceptibility to influence through the SDNP planning mechanisms. These are reflected in the transport plans of the local authorities and are:

- Public transport accessibility as a spatial planning criterion;
- Growth in visitor access and activity as a means of achieving a more sustainable local economy;
- Managing access points to reduce negative impacts at hotspots;
- Planning access points and interchanges to boost visits by sustainable means; and
- Planning rights of way improvements in relation to access by sustainable means of travel.

From the data received so far it is clear that much of the SDNP itself has poor public transport accessibility, reflecting in particular a lack of bus service provision both within, and connecting to, the area. In the Visitor Survey 2012 35% of residents mentioned improved bus services as an action that would encourage them to make visits to the National Park. There is also a clear need to improve information on services, using both the web and mobile phones.

There are, however, examples in neighbouring coastal towns where improvements to bus services have led to increased use and understanding how this was achieved will be helpful in improving services in the SDNP area.

Where possible, gaps in data need to be filled to assist in improving accessibility by sustainable modes. In many cases this can use existing sources in a new way, rather than employ costly new survey or modelling work. Nevertheless, opportunities have been identified to commission additions and extensions to surveys already undertaken or planned by other authorities that will benefit the SDNP (see Appendix A).

In addition, a “National Park perspective” could be introduced into the work already done by local authorities on a regular basis. Setting this out and agreeing it with them should be a priority action arising from this report. An example is the need for weekend and other recreational travel data outside the peak travel times. This is crucial for bus and cycle provision, but is also important for increasing off-peak rail use. At the moment, operators and Network Rail are, understandably, more concerned with commuter peak capacity problems on the network. Similarly, the Local Transport Authorities (LTAs) tend to give priority to transport related to urban areas and growth areas. Making the case for SDNP-related solutions will be an important aspect of further work.

The creation of a transparent and usable set of data is the first step in producing a viable and attractive sustainable network for travel to and within the SDNP. This also needs to be highly visible, and easy to understand, and use the most up to date means of information.

This report also provides the platform for maximising the use of accessibility analysis for land use as well as transport planning purposes. Combined with the mapping of popular locations and new access points to the footpath and cycle networks, this will show where action is needed to improve sustainable modes. When linked with accommodation information, it will inform the

provision of both public transport and the provision of service access to facilities such as cycle hire. Implementation of the recommendations that have emerged from the findings of the study will contribute to an integrated approach to travel and access by all modes, and ensure continuity between the SDNP and its local and neighbouring communities.

1. Introduction and Context

The South Downs National Park (SDNP) area has the largest population by far of the UK national parks, with almost three times the population of the next nearest – the Lake District. Of the English national parks, it is second in area only to the Lake District. This means that apart from the purposes of the SDNPA to protect the heritage and landscape and promote access for all, particular importance must be attached to the associated duty to foster the economic and social well-being of the local communities within the SDNP.

As the statutory authority responsible for the planning and management of the National Park, the SDNPA works within the planning framework and must respond to national planning policy and guidelines, including the duty to cooperate with other authorities and bodies. The two main documents in course of preparation are the SDNP Local Plan and Management Plan.

The Local Plan will be the prime spatial planning document for the SDNP, being the main basis upon which planning applications will be decided, once the Plan is adopted. As such it must be in conformity with the National Planning Policy Framework (NPPF), as well as having consistency with the plans of other authorities within and near the SDNP, especially for cross-boundary issues, and on matters for which the SDNPA does not have prime responsibility. This latter point is especially important in relation to the transport, for which the main responsibility lies with the Local Transport Authorities (LTAs).

The Management Plan is the main overarching document that will guide both the maintenance and development of the National Park. It is the statutory plan for all those with responsibilities for protecting and enhancing the National Park, and covers a wide range of topics including transport and accessibility. The main responsibility for transport in the National Park rests with the LTAs, namely the counties of Hampshire and East and West Sussex, plus Brighton & Hove Unitary Council, together with the transport providers including the Highways Agency, Network Rail, and train and bus operators.

The development of policies, programmes and priorities for the achievement of more sustainable transport outcomes will therefore involve collaborative working with these bodies. This report, and the accompanying data and evidence base assembled for the National Park area will inform the policy making, implementation and monitoring processes for both the Management Plan and the Local Plan.

The scope and structure of this report is set out in the next section.

2. Study brief and report structure

2.1 Study brief

The study, which is Phase 1 of a two-phase study of transport in the SDNP, was commissioned by the SDNPA in October 2012. The brief was for *"a high level review of existing evidence and policy collated by the four LTAs, Network Rail and the Highways Authority"*. Other more local data was to be included where this aided *"understanding of transport patterns around key settlements"*. The aim was to provide, on the one hand, *"a comprehensive inventory of existing available data sets"*, and on the other hand a *"high level overview of the issues affecting the SDNP based upon a review of existing reports and processed data"*. It was therefore to be a *"scoping study"* to inform and support the more definitive policy-making stages (including the second phase of the transport study) necessary for the preparation of the SDNPA Management Plan and Local Plan.

The study brief also set out some specific transport-related topics on which greater understanding was sought, and this guided the approaches made to the LTAs and other bodies for data. Attention was to be paid to the approaches taken by other National Park authorities.

The deliverables from the study specified in the brief (as amended prior to contract by email on 12th September 2012), together with the corresponding outputs in this report and accompanying files, are set out below:

1. Policy review
   (Section 3 of this report plus Appendix B)

2. Baseline review of transport movements and trends
   (Section 4 of this report)

3. Inventory of existing data and metadata that may inform policy making
   (Data Inventory Word File, plus a suite of document files accompanying this report)

4. Review of existing research and best practice
   (Best practice examples of both data and actions are included in this report)

5. Preliminary analyses of data to underpin the identification / characterisation of key transport issues
   (Section 4 of this report, plus a suite of GIS files)

6. Characterisation of the key transport issues to be addressed by SDNPA based upon the policy review and recommended priorities; this would include review of the appropriate issues and indicators

identified in the Sustainability Appraisal Scoping Report (Sections 3 and 6 of this report)

7. Proposed scope for Phase 2 Transport Study including:
   a. Key policy options for SDNPA to pursue;
   b. Potential delivery solutions for SDNPA to investigate and prioritise in support of 7a.
   c. Identification of stakeholder groups for consultation.
   (Section 6 and Appendix A of this report)

2.2 Report structure

This report is the descriptive and analytical heart of the Phase 1 scoping study. Accompanying this report is a Data Inventory, plus related document files (Word, pdf, Excel) and a set of GIS files.

Having set the context for the work and its place in the transport policy-making process of SDNPA (Section 1), and summarised the study brief (Section 2.1) the report gives prominence in Section 3 to the development of transport policy issues in the SDNP, taking into account work already undertaken by the Local Transport Authorities and the SDNPA itself.

Section 4 reports on the heart of the project, namely the various data and information that will underpin the policies to be included in the SDNPA Management Plan and Local Plan, establishing at the same time the statutorily required evidence base. Given the wide range of data reviewed in this study, this is necessarily a lengthy section, but it is broken down into seven sub-sections for clarity.

This is followed by a discussion (Section 5) on the nature and scope of the transport data collated in this study and included the Inventory and associated documents, including GIS files, that accompany this report. The Data Inventory is a generic resource that should be periodically improved and updated over time as further data become available, and is not dependent on this report for its validity.

Section 6 looks towards the next stage in the policy making process to discuss both the means by which policies can be established, especially through collaborative working, and the scope of the Phase 2 transport study in terms of the range and type of policy areas that can serve the SDNPA responsibilities and duty.

Finally, the report includes two Appendices, the first providing a summary of recommendations for Phase 2 of the transport study, and the second providing more detail on the issues, objectives and policies identified in published documents as at December 2012.

3. Transport Policy Issues in the SDNP

The relationship between data and policy is two-way. The data that exist lead to certain issues and policy requirements being defined, an example being the data on the paucity of Sunday bus services. At the same time, policy-making objectives and initiatives give rise to demand for certain types of data. For example, there are no data on shared or short-rental cars in the SDNP, but it could be a policy initiative to promote them. This section of the report addresses both of these perspectives.

Policy development work is necessary for the preparation of both the SDNP Management Plan and SDNP Development Plan. Again, this section of the report is relevant to both.

3.1 Issues identified by the Local Transport Authorities (LTAs)

Considerable work has already been done by the constituent SDNP local authorities and other bodies to identify transport issues, and devise policy responses. There is a degree of commonality between the issues highlighted by the constituent LTAs, as summarised in Table 1 below. More detail is provided at Appendix B.

There is also considerable commonality between the LTAs in terms of their approach to these issues. Brighton and Hove is somewhat different from the three Counties, which reflects its different geographical and demographic character.

These policy similarities and differences deserve to be explored in more detail, and this will involve collaboration with the LTAs to ensure that actions are correctly interpreted. Examples for public transport are given below:

The approach to rural bus services appears to vary between the authorities, and this could impact on travel to and within the SDNP. For example, Hampshire CC is understood to apply a threshold level of support in terms of cost per passenger, in order to decide which services must be cut to secure savings. The Hampshire Local Transport Plan (LTP) places the emphasis on community transport solutions as the main alternative to the car in rural areas. Such services are by definition rooted in specific local needs and likely to be less easy for SDNP visitors to access, due to their diverse and often specialised nature, their irregularity, their dependence on volunteer labour, and their uncertain presence in information platforms, including the Web. The Sussex Counties also have funding pressures for supporting rural bus services, but appear to regard community services as an addition to supported conventional bus services rather than as a substitute for them. There could thus be important differences in the potential for increasing bus access to and within the SDNP between Hampshire and the rest of the SDNP. It is also important to distinguish between community services and mainstream demand responsive services (such as the Route 99 Chichester-

Petworth service), which can vary their route but are provided on a regular and predictable basis.

Rail services, and the potential for improving access to the SDNP from rail stations is emphasised by East Sussex, and this may reflect the fact that almost all of their portion of the SDNP is within 4 miles of a station. This cannot be said of West Sussex or Hampshire, which have large tracts of SDNP more than 4 miles from the nearest station.

There are some variations between the LTAs in terms of the issues and objectives which receive priority in their Local Transport Plans (LTPs) of 2011. Although the wording and presentation of issues varies between the LTPs, a broad comparison of these variations in emphasis is indicated in Table 1 below. The table is based on a necessarily flexible interpretation of the contents of the various transport plans. The SDNPA Local Sustainable Transport Fund bid of 2011 is also included for comparison purposes. The SDNPA policy making process will build upon the work undertaken in these existing plans, but may be more extensive in scope, as policies and actions are devised to meet the purposes and duty of the SDNPA, as opposed to the wide responsibilities of the LTAs.

Table 1 Summary of priority objectives identified in Local Transport Plans

Objective	Hants	West Sussex	East Sussex	Brighton& Hove	SDNPA LSTF
Increase visitor access to the SDNP but with reduced traffic impact	Managing and mitigating the impacts of increasing traffic, including HGV movements on core routes and in more rural areas. (not specifically visitor traffic)	Manage the impact on the transport network of visitors to SDNP. (Concern expressed also about impacts that increased visitors can have on the transport network)	Manage and improve visitor access to the National Park while reducing the impact of traffic	Maintaining and providing additional sustainable transport to and through the SDNP is expected to be a high priority	Expand tourism whilst reducing the proportion of visitors arriving by car and increasing the proportion of visitors arriving by sustainable modes
Minimise impact of transport infrastructure on the landscape and environment	Managing transport and infrastructure impacts within the two National Parks	Mitigation includes sensitive choice of infrastructure materials, signing and other ancillary infrastructure in countryside or historic villages/towns, and partnership working with SDNPA.	Minimise the impact of any transport infrastructure on the landscape and environment	It is important that the urban ecological footprint of the city is reduced and the efficiency of the transport network and its infrastructure is increased	Transport infrastructure within National Parks need to be managed carefully given the sensitive nature of these environments
Support the role of rural bus services for both visitor and community access	Priority to community-led services	Community transport viewed as an important supplement to scheduled services. Affordable easily accessible services that incl. evenings / weekends seen as a priority, particularly for the young.	Yes; Focus on improvements to public transport on key routes and corridors from Brighton and Hove to both Lewes and the south coast towns incl. better interchange facilities	Maintaining and providing additional sustainable transport to and through the SDNP is expected to be a high priority.	Raising awareness of existing bus services in both South Downs. Improved routing and timetabling of existing bus services, to provide better onward bus connections from selected train stations
Support the role of rail in sustainable access to the SDNP	Not specifically	Encouraging use of rail services	Support the role of rail in sustainable access to the National Park.	Not specifically	Focus on infrastructure, information and onward journeys from public transport hubs, in particular rail stations to bus, cycling & walking
Provide sustainable access to the SDNP (including walk and cycle access to stations)	Develop and promote new walking and cycling routes from major towns and railway stations.	Developing opportunities to improve access to, and within the National Park particularly for walking and cycling	Improvements to walking and cycling access to rail stations with particular consideration for those giving access to the South Downs National Park	Provide walking and cycling connections between the city centre, urban fringe parks and the South Downs National Park	Focus on linking to key destinations by improving bus links, cycling & walking infrastructure, & through promotions & information
Ensure new development is accessible without reliance on the car	New development will be planned to avoid increasing traffic pressure by ensuring that a choice of attractive alternatives are (sic) available	All new development should be designed to promote 'local living', for example shops, jobs and homes all being within easy reach of each other	Ensure development and services are located where they are easily accessed on foot, by bike or by public transport	Integrated, sustainable and accessible approach to the location of new development to reduce the need to travel	Ensure good sustainable access provision to the Parks is in place to manage the expected growth in recreational travel from new development

Table 1 (continued)

Objective	Hants	West Sussex	East Sussex	Brighton& Hove	SDNPA LSTF
Improve key walk, cycle and public transport routes	Supporting local sustainable transport through footpath, cycle, equestrian, public transport and rights of way improvements, and enhancing the network to allow increased leisure use.	Developing opportunities to improve and protect public rights of way through the RoWIP	Work with the National Park Authority, to improve walking, cycling and public transport links into the SDNP. (Policy priority for cycling given to urban and "utility" routes)	Provide cycling and walking routes which connect communities, natural environments and key local services and activities. Improved Rights of Way and access to the SDNP	Improve the provision of cycling, equestrian and walking access; Provide high quality cycle and walking routes
Avoid HGVs using unsuitable routes	Measures to reduce adverse impacts of HGVs on rural communities	Discourage HGVs from less suitable local routes	Promote the use by HGVs of advisory network of A and B roads; address inappropriate use of routes identified by satellite navigation systems	Working with freight companies to investigate ways of moving goods through the city in a more energy-efficient way	Not specifically
Coordinated community transport services	Identify and encourage Community Transport services to serve isolated areas	Coordinating Community Transport – providing information and advice, and facilitating discussions between operators to identify and plug gaps in geographical coverage and improve understanding of services in the community.	Ensure that public transport and community transport networks complement one another	Not specifically	Not specifically
Reducing the need to travel (and access for all) through provision of local facilities/services	Local communities could take responsibility for facilities and services where they would not normally be financially viable	Supporting local services and access to services through innovation	Not specifically (Encouraging investment in faster broadband to reduce the need and demand for travel)	Help create communities that work well – with good local facilities	Support local facilities and communities
Achieve "Smarter Travel Choices" (mode shift away from car driver mode)	(Urban areas only)	Reduce unnecessary trips by motorised vehicles and encourage use of more sustainable modes of transport (through travel plans)	More travel planning to achieve higher levels of travel by sustainable modes	Personalised Travel Planning since 2006. Social marketing and community participation to achieve mass behaviour change	Promote sustainable travel packages to visitors before they arrive and while they are in the Parks
Reduction in the number and severity of road casualties, and safer roads	Targeted measures that deliver reductions in casualties, including applying a speed management approach that aims to reduce the impact of traffic on community life and promote considerate driver behaviour	Reduce the risk of death or injury due to transport incidents through engineering, training and publicity	Road safety through enforcement, education and engineering measures. (Casualty reduction implied)	Redesigned road layouts to reduce number and severity of casualties	Schemes to increase safety for pedestrians, cyclists and horse riders

Notes:

1. *The table is intended as an indicative summary only; the wording is an interpretation of the actual content, which differs between the individual plans.*
2. *Only issues considered to be of central importance to the SDNP are included.*
3. *More detail of the actual content of the LTPs is included in Appendix B*
4. *The relative sparseness in the Brighton and Hove entries reflects the character of the area and absence of rural communities within the boundary, rather than any lack of commitment to sustainable transport issues.*

Table 1 reveals that the interests of the National Park do feature in the constituent LTPs. However, the policies emerging from the SDNPA are likely to both require and support the case for increasing the priority given to recreation-related transport. While other funding sources will be important (in particular the Local Sustainable Transport Fund), a stronger rural emphasis in County transport and planning policy could promote the aims and duties of the SDNPA for the longer term.

The Local Sustainable Transport Fund (LSTF) bid in 2011 (jointly for the New Forest and South Downs National Parks) is also an important foundation for identifying sustainable transport policies for the SDNP, and is included in Table 1 for this reason. The bid included four key objectives, within which a series of actions were identified for potential implementation using LSTF and other funding. The four objectives are:

1. Improve key public transport gateways into the two National Parks
2. Make it easy to reach key attractions within the two National Parks
3. Promote sustainable travel packages to visitors before they arrive and while they are in the National Parks
4. Manage all traffic effectively within the Parks, so that it does not detract from visitors' experience

As one would expect, the range of actions included in the LSTF bid is more detailed and specific to the purposes of the SDNPA than the LTP policies of the LTAs. The policy areas targeted for the SDNP are discussed further below.

3.2 Issues identified during the Phase 1 Transport Study

General policy issues

Policies, and the objectives they are intended to address will need to be tailored to the different aspects of the National Park, both spatially and in terms of the use to which the SDNP is put. In terms of policies for securing more sustainable transport and access, be they for parking, public transport, rights of way, development or other topics, a "one size fits all" approach is unlikely to be sufficient. This is because there are considerable variations in

character between one part of the National Park and another. Examples include:

- Parts of the western portion of the National Park are considerably more remote from centres of population than the eastern portion;
- Some areas and attractions are easily accessible by rail whereas others are not;
- The towns and villages, and hence the availability of facilities and services, are not evenly spread, reflecting in particular big differences in the extent and intensity of agriculture;
- Recreational uses vary from one part of the National Park to another, also influenced in part by the presence or absence of agricultural activity, but also reflecting the suitability of particular areas for particular types of leisure or sport (e.g. hang gliding is dependent on landform).

Policies must therefore respond to this diversity by specifying how they apply to different areas, or individual policies can be devised to address the issues of particular locations. An example of the former might be a policy to capitalise on existing good quality bus routes for access to the National Park, which will vary according to whether locations already have good bus services or not. An example of the latter might be a policy to tackle traffic or visitor impacts that is specific to “hotspot” locations (see below).

A further general policy issue concerns the management of visitors to the National Park to secure access and travel by more sustainable means, and to secure greater contribution to the local economy. Achieving these aims will require the dissemination of information and provision of incentives to promote appropriate use of the National Park. It is extremely important that such actions are only taken once the necessary facilities and services are available to a sufficient standard. For example, promoting car-free walking weekends in the SDNP whilst large areas are without Sunday bus services would carry the danger of damaging the perception and reputation of the SDNP. Such damage, once inflicted, can be extremely hard to rectify.

Dealing with “hotspots”

The negative impacts of visitor and other traffic are not uniform across the SDNP, either spatially or temporally. Action to mitigate impacts will therefore require targeted action, and this in turn will require further analysis as to the location of hotspots, and the specific problems that need to be addressed. For example, a plan to relieve the traffic stress at Alfriston will need to be developed specifically for that location. Transport policy for the SDNP will therefore need to be developed to include such place-specific actions. The options will vary from place to place, for example:

- Car park management and “park and walk”;
- Selective traffic restrictions (e.g. by time, season, vehicle type);
- Pedestrian and cycle oriented street design and network development;
- Securing public transport improvements for mode switch; and
- Speed management.

Planning access "gateways" to the SDNP

Certain locations have been identified, for example in the East and West Sussex Local Transport Plans, as "gateways" to the SDNP (including Eastbourne, Hassocks, Lewes and Newhaven). The concept has not, however, been formally defined in the plans and nor has the full extent of "gateway" locations been identified.

The SDNPA, however, has developed a working definition of both "gateways" and "hubs" (see below). A SDNPA discussion documents states that gateways are "*car free entrance points into the National Park, of three differing types, full-scale, direct access, or onward travel. They must as a minimum have a railway station linked to the rail network and have clear and obvious opportunities for an appropriate means of sustainable travel into the National Park (walking, cycling or bus)*".

Some of the most important "gateways" lie outside the boundaries of the SDNP. For the SDNPA, therefore, the area of planning interest must an embrace an area larger than the SDNP itself. This "planning area" could be defined once the gateway facilities and locations have been mapped and agreed upon. There will be implications for partnership working, and involvement in the local planning and transport planning for gateway locations outside the SDNP boundary.

A hierarchy of gateways could be developed and mapped in relation to access routes to and within the SDNP. For example, the hierarchy could be layered according to criteria relating to:

- Public transport availability (multi-mode interchange, rail, bus, taxi, car, cycle, timetable integration);
- Facilities available (shops, cafes, toilets, car parking, cycle parking, hire, repair);
- Availability of footpaths, cycle paths, bridleways and proximity to the SDNP.

In addition to the rail-based gateways there are many other locations offering access into the SDNP, and onward travel by sustainable modes. These other non rail-based locations include:

- Bus stops relating to major paths;
- Car parks; and
- Path and bridleway access points on road network, with and without informal car parking opportunities.

Generically both these and the gateways may be termed "access points" for the SDNP. The terminology can be finalised along with the hierarchy. These access points can be mapped, and coded according to the level and quality of facilities. The process would involve identifying, auditing and mapping, and the information that will then form a basis for:

- Planning improvements , and increasing the number of access opportunities;

- Developing and promoting walks (etc.) from each access point, including circular and point-to-point itineraries;
- Informing and prioritising maintenance requirements;
- Providing structured locations for visitor surveys;
- Providing a structure for a signage and wayfinding strategy and hierarchy;
- Providing a standard identity for information and promotion materials; and
- Assisting in the management of demand and identifying appropriate impact reduction measures at "hotspots".

Planning of "hubs"

The SDNPA has a working definition of "hubs" as follows: *"Hubs are points and places where it would be desirable to enhance the visitor experience, raise awareness and motivate changes in behaviour. These will be places, attractions or locations where there is an opportunity to provide and enhance visitor information and interpretation, visitor facilities (e.g. cycle hire, electric bike charging, bike parking), signposting to public transport etc. These may be towns, attractions or visitor information centres."*

Other National Parks have developed the concept of "hubs", although their meaning and definition is not necessarily the same as set out by the SDNPA. The Peak District National Park regards hubs as larger access points, including those with multi-modal possibilities and supported by a range of facilities. Hubs are planned also for the Brecon Beacons National Park, while "cycle hubs" are discussed for the Lake District National Park.

Hubs related to the SDNP may be the equivalent of the higher-order access points as discussed above, but they are likely also to have an additional dimension in terms of being a focus of local living, as well as a focal point for visits within the SDNP. Comments elsewhere in this report about the importance of building upon communities within the SDNP also resonate with this suggestion.

There is also the possibility of providing very local and thus smaller scale access points, for example places where hire bikes can be delivered close to accommodation, smaller car parks or bus stopping points (whether conventional stops or on demand "bookable" stops such as Hampshire County Council's "Cango").

Rail services and access to the SDNP

Railway stations are important for bringing visitors to the SDNP without a car, especially from further afield, including the Greater London area, which has fast direct links to some areas of the SDNP. Policies designed to promote the use of rail must take into account the fact that most of the stations relevant to SDNP access in fact lie outside the SDNP boundary. Collaboration with the constituent local authorities as well as the rail bodies will therefore be needed. A second important factor is that large parts of the SDNP in Hampshire and

West Sussex have no nearby rail station. Promoting the use of rail in these areas will therefore be dependent on interchange at rail stations outside the SDNP to other modes, including bus services but also other facilities such as car and cycle hire. In this regard, the lack of integration of bus and rail services, and indeed the paucity of bus services overall, presents a major challenge. There are therefore significant opportunities to improve the quality and marketing of existing interchanges, as well as opportunities for the creation of future interchanges linked to SDNP access.

It is worth noting that the rapid increase in rail passengers over recent years is mainly due to new people travelling by rail rather than existing rail users travelling more. (Ref: *"On the Move: Making sense of car and train travel trends in Britain"*, Scott Le Vine and Peter Jones for RAC Foundation, December 2012) This is potentially useful in terms of promoting rail access since it describes a propensity amongst certain groups to change their travel behaviour.

The Downlander rail promotion of online discount tickets to access the SDNP is an interesting initiative, but again there is potential to be explored for linking to local buses. Without this, the opportunities for SDNP access by rail for walking are mostly limited to circular walks in the East Sussex area. Taxis can provide another means for walkers to link back to the rail network, but again these need to be better integrated, and perhaps included in the discounting system, as happens with the train taxi (Treintaxi) in the Netherlands.

The cost and viability of public transport

There are two related aspects to this issue: the cost to the passenger and the cost to the operator and/or the sponsor of services.

The West Sussex LTP highlights the issue that high fares and infrequent and/or irregular bus services mean that car is the usual mode of choice in rural areas. The application of fares to each person means that the bus can be a particularly expensive option when more than one person is travelling. For example, for a couple travelling from Brighton to Ditchling Beacon, all-day parking is available for £2 whereas the regular bus fares would total £10 return.

The low passenger demand in the SDNP means that to be commercially viable, regular bus services must rely on demand between towns. This is feasible where towns lie in proximity (such as Lewes-Brighton), and when the populations of corridors are large (such as Crawley, Burgess Hill, Brighton) but it is more challenging in the western parts of the SDNP where population densities are lower and settlements more dispersed. It is noteworthy for example, that the north-south services to Midhurst do not form a single through service between Haslemere and Chichester, but terminate at Midhurst. To be commercially viable, a conventional bus will need to be carrying an average of around 15-20 fare-paying passengers per hour, or around 40 passengers per hour if concessionary pass holders.

Policy consideration should be given to off-peak promotions whereby couples or families can travel on one ticket. Such fares are commonly available at weekends in other countries for rail as well as bus travel (e.g. Germany, Netherlands). Other possibilities include the use of an "access ticket" which covers either car parking or a public transport trip for the travelling group, equalising the cost between the two modes.

Inadequate bus services

The study confirms a major mis-match between the supply of bus services and the demand and potential for recreational travel. The coverage, frequency and regularity of bus services in many if not most parts of the SDNP are poor. In particular a paucity of Sunday bus services severely limits the potential to access the SDNP by sustainable means.

Weekends are the main time for recreational use of the SDNP. (Unfortunately the Visitor Survey does not identify visits by day of the week, but there is anecdotal evidence of the importance of weekends.) Weekends are thus the time when facilities and car parks will be under greatest pressure, and there is most to be gained from securing a switch of mode from car for recreational trips. The lack of bus services will be a severe constraint on this policy. The same applies, although possibly to a lesser degree, to evening services, the lack of which constrains people's options for returning home later, for example after having had drinks/meal in a local café, pub or restaurant. Without evening services people are forced to leave visitor locations in the SDNP early, thus reducing the economic potential of visitors in the SDNP.

Funding pressures have meant cuts in bus services supported from local authority budgets, and this has impacted most on rural routes, and on services at evening and weekends. Hampshire and West Sussex both highlight these pressures in the LTPs. Bus operators also point to the fact that a high proportion of passengers are concessionary pass holders, from whom revenue per trip is lower than fare-paying passengers.

Rural bus services have been in decline over the years, to the point that large areas are now without any credible public bus service, especially on Sundays. Despite the low take up of bus services in rural areas the Visitor Survey and other public satisfaction surveys highlight popular calls for improvements to public transport. The Visitor Survey found that for non and lapsed visiting residents, 35% said that the action most likely to encourage them to visit the South Downs for leisure/recreational purposes is improvements in local public transport, in particular an improved bus service. Only various improvements to paths received more mentions amongst the respondents. Consideration of how bus services can contribute to sustainable access to the SDNP in general, and at weekends and on Sundays in particular is a key policy issue for exploration. (See also Section 4.5 on bus data, and Appendix A.)

There are barriers to using public transport for access to walking and cycling routes within the SDNP. For example:

- Point to point walks may require the purchase of individual tickets at higher cost, compared to return tickets that can be used for a circular walk from a single access point;
- Information may not be adequate on return services;
- Services may not "match", and can entrap visitors when return services are unavailable. For example, Devil's Dyke can be accessed by bus from Brighton on Saturdays, but after a walk to Ditchling Beacon, there is no bus to return to Brighton. However, this can be done on Sundays, when both buses run (77 and 78/79)! (Brighton & Hove buses winter timetable 2012-13);
- Bus stops that potentially give access to the South Downs Way often have no information on services. Other bus stops are not obvious (e.g. Pyecombe);
- Bus services providing access to the SDNP from stations are not consistently integrated in terms of times, frequencies or information; and
- Buses do not carry bicycles.

While the evidence and analysis points to the need for improved bus services, achieving this will be a major challenge given that the trend in rural areas is bus service decline, due to fiscal pressures, rising operating costs and weak passenger demand. Some authorities use demand responsive services in rural areas to provide the initial access to the mainstream public transport network, for example Lincolnshire "Call Connect". These help to provide patronage for the main bus routes and improve their viability.

Planning public rights of way

All three counties recognise the importance of a high quality network of public rights of way for sustainable access to the countryside and the SDNP. There are some differences in emphasis in how to address deficiencies, however, and priorities are set in relation to other county matters. (For example, West Sussex highlights concern about the disjointed network between the coast towns and the SDNP, and concern about the impact of increased visitor numbers on the public rights of way network following designation of the SDNP is highlighted by West Sussex LTP.)

From the SDNP perspective there are likely to be benefits from securing a cross-authority approach to, for example, the mapping, classification and auditing of rights of way. Issues will include integration with treatment of rights of way elsewhere in the county areas, and with other systems such as facilities for reporting of problems. There could be cost savings to be made from a joint approach.

Different aspects of rights of way development and improvement will need to be considered in the policy-making process, such as:

- The importance of circular walks (or rides) where return transport is unavailable, as is often the case when the SDNP is accessed by car;
- The potential to increase rights of way, and to plug gaps in the network, as a means of relieving pressure on hotspots;

- Consider prioritising improvements to networks that can be accessed by public transport or on foot from nearby settlements.

It is important for further policy and management work on the rights of way network to take account of the Rights of Way Improvement Plans that highway authorities are required to produce (Countryside and Rights of Way Act, 2000). There will also be opportunities for the SDNPA to influence the content of RoWIPS as these are revised.

Planning for sensitive routing of HGV movements through the SDNP

There appear to be no comprehensive data on which routes are unsuited to HGVs, or where HGVs are having the biggest impact. General policies for West Sussex call for HGVs to use routes that avoid congested places and delays at level crossings. Hampshire refers to signing to discourage HGVs from unsuitable routes. Beyond the SDNP Kent County Council and several other councils have commissioned a web-based mapping tool – called Freight Gateway (http://www.piemapping.com/news/view/freight-gateway-for-kent-council) - to help HGV operators to avoid using unsuitable routes. This map identifies freight-specific details such as industrial areas, weight, height and other restrictions. There is a range of policy options for mitigating or reducing HGV impacts on the SDNP, for example by reviewing access restrictions, exploring break-bulk possibilities, and encouraging adoption by local hauliers of suitable tailored satnav software (see Appendix A). Specific "except for access" restrictions can also be applied where HGVs are out of scale with the local environment and road network.

Potential use of social networking sites

Further potential can be explored for using social media applications to:

- Encourage participation by younger age groups;
- Gather information about improvements needed to services, facilities and infrastructure (e.g. twitter is reported by Metrobus to be a valuable tool for service planning and improvements);
- Provide real time updates on problems, changes; and
- Promote events.

There is also likely to be potential for integrating the SDNP information portal with smart phone applications, e.g. bus and rail operator and route finder applications. The potential of problem-reporting sites such as fixmytransport.com and blogs needs to be explored.

Promotion based on local transport and facilities

There is a need to provide strategies and proposals for improving and increasing recreational opportunities (both passive and active), in relation to sustainable access. Potentially there are two approaches to identifying enhancement measures, the first being to base them on the requirements of "external" visitors, and the second being to base them on opportunities that can be identified locally, and by local communities within the SDNP. While

both of these approaches can be taken, it is important to ensure that external marketing and promotion does not precede the achievement of quality facilities and services locally. For example, promoting onward travel into the park by bus will produce negative experiences for visitors are not fully aware that this may be impossible on Sundays in most locations.

The SDNP visitor survey 2012 identified that most (76%) visitors to the SDNP reside in the associated counties (including Surrey). (Unfortunately, the survey does not identify what proportion of visitors are also residents of the SDNP.) This suggests that a local focus, or "bottom up" approach could be the most appropriate.

Development of proposals to improve the SDNP's "offer" based on local living and local character is potentially important to ensure that developments and initiatives benefit the local economy and local communities in the SDNP. Developing recreational routes, access, wayfinding, and support facilities etc. from the local perspective also should ensure greater take-up by local populations. Promotion of the SDNP to people outside the area can then be secured by tapping into the locally-developed information and infrastructure.

This approach could have advantages over concentrating on externally generated promotion:

- It accords with the general principle of "product before promotion";
- It would ensure that external promotion uses up to date information;
- It would avoid diverting resources away from improvements that will benefit local communities (the largest single group of users); and
- It would potentially support local businesses (e.g. visitors using cafes rather than picnics, or local visitors going home early because there is no public transport).

External promotion need not be discouraged, and there are good examples of external promotion, such as the Southern Railway "Downlander" go-anywhere ticket, and organisations offering walking and cycling itineraries. Even so, such offerings potentially could be made more popular and user-friendly if they were integrated with locally generated information and promotions. For example, what does the holder of a Downlander ticket do after arrival at a station serving the Downs?

New development and accessibility

The designation of the SDNP has achieved an additional measure of protection from development in high landscape and recreational value areas. Nevertheless, the SDNP contains many settlements and businesses and these cannot remain static, and new development will often be needed to accommodate economic sustainability and social and other needs of the existing communities. The SDNP development plan will need to guide the location, scale and type of development in the SDNP. Perhaps the most important tool will be the use of accessibility data and mapping, to ensure that all new and increased activity, as well as existing activity, has options for travel by sustainable means (see 3.1 below). Equally, lack of options for

sustainable travel will be an important reason for refusing new developments in the SDNP, balanced of course by other considerations. It is therefore important that provision is made for robust input to the development of accessibility-related spatial planning policy within the SDNP.

A range of other policy issues has been identified following the review of data and discussions within the SDNPA, and these are described in Section 6.

4. Key data areas

4.1. Accessibility

Accessibility data

Policy relevance and current sources of data
Accessibility measurement, usually shown in map form, has two clear policy functions in relation to the SDNP. The first is in terms of land use planning, to show the accessibility of locations in the SDNP to important facilities including schools, GPs, hospitals, and employment. The second is the accessibility of the SDNP and its attractions to visitors, particularly from the nearby urban settlements that are particularly important in terms of visitor numbers, as shown in the 2012 Visitor Survey.

While preparing the transport data inventory for the SDNP, two main sources of accessibility data were identified:

- National assessments undertaken by the Department for Transport (DfT); and
- Local authorities, who use the standard "Accession" software. The latter is able to produce more detailed maps, some of which are included in the Inventory. However, both use much data in common, in particular the national "snapshot" of public transport services, stops and stations (NAPTAN) which is updated every October.

Accessibility for land use planning

Existing data

In terms of planning, in particular for residential development, the accessibility of locations in the SDNP to important facilities including schools, GPs, hospitals, and employment is of crucial importance. Accessibility data referred to here relate to walking, cycling, and public transport, which reveal, for example, those areas which cannot provide reasonable levels of access by sustainable modes. This is usually set in terms of how long it would take to access a certain number of facilities in 20 or 40 minutes.

This form of mapping also allows improvements, whether to service levels or access points, to those modes to be tested to see whether they make a sufficient difference to meet key planning criteria for sustainable development, such as those in the National Planning Policy Framework (NPPF).

Similarly, accessibility mapping is helpful in planning the location of facilities, including shops, schools, community leisure and other facilities and employment. In this case the mapping indicates the destinations to which accessibility by "sustainable" modes is strongest, and thus the locations that offer the greatest opportunities for travel without the need for a car, where new facilities should be clustered.

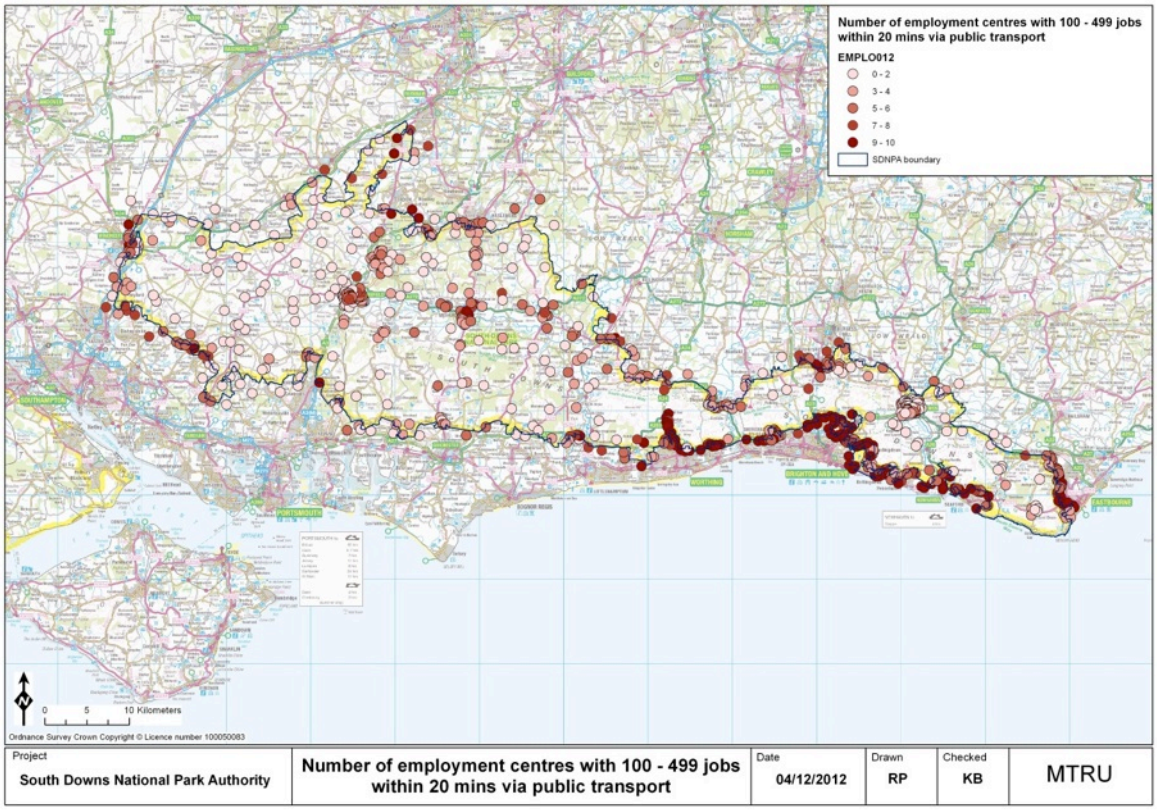
This form of testing, using accessibility mapping, is growing in importance because it is transparent, cost effective, and the information on which it is based can be updated very easily. It can avoid the need for more detailed

and expensive modelling, for example unsuitable areas which are far less accessible than a town centre are immediately apparent. Local maps of this type have been prepared for towns in East Sussex by East Sussex County Council and are included in the Inventory.

Obtaining new data and analyses

In order to produce maps covering the whole of the SDNP, it is possible to use the DfT data, and following discussions with DfT staff, they were able to supply results in spreadsheet format for the Census Output Areas (OAs) in the SDNP and on the boundary. Again this is a standard zoning system and the 2011 Census journey to work data will be supplied in this same format. We have been able to use these to produce a series of sample maps in a standard mapping programme. A selection of key data using the DfT data, have been prepared and are included in the Inventory accompanying this report. In Figure 1, differences between areas in the SDNP, and the influence of major towns and of railways can be seen clearly.

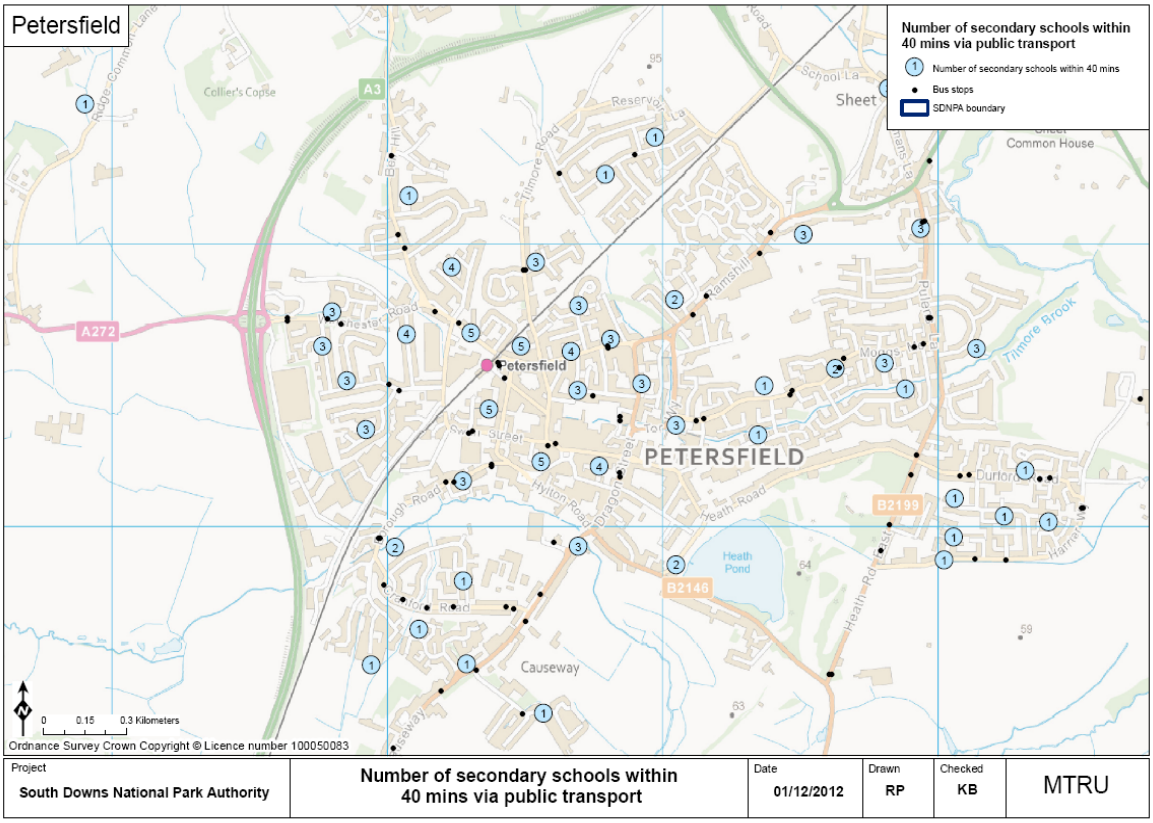
Figure 1 Sample accessibility map related to employment centres



Some of the data points overlap, particularly in areas of higher population. Thus we have produced some example town-based maps of different sizes using the DfT data. It would be possible to produce maps using additional local data at an even greater level of detail using Accession or similar local accessibility software, as has been done by East Sussex. Nevertheless, the DfT based maps display the accessibility information clearly and are very cost effective in providing SDNP-wide comparisons of one area with another, as well as a strategic overview. They would need to be cross checked at this level of detail because the DfT uses the centre of Census zones to plot its

times. This is not an issue at the broader scale maps for the SDNP as a whole. An example of what can be produced in this way is shown in Figure 2 below.

Figure 2 Sample local accessibility map related to secondary schools



Accessibility and visitors

Accessibility by public transport to major centres from the SDNP parallels the mapping described above, but has a second important function. Such maps also coincidentally describe the accessibility in the reverse direction, i.e. **from** the major centres to specific areas in the SDNP. This is important because the recent Visitor Survey showed the importance of nearby settlements in terms of a high proportion of visitors to the SDNP.

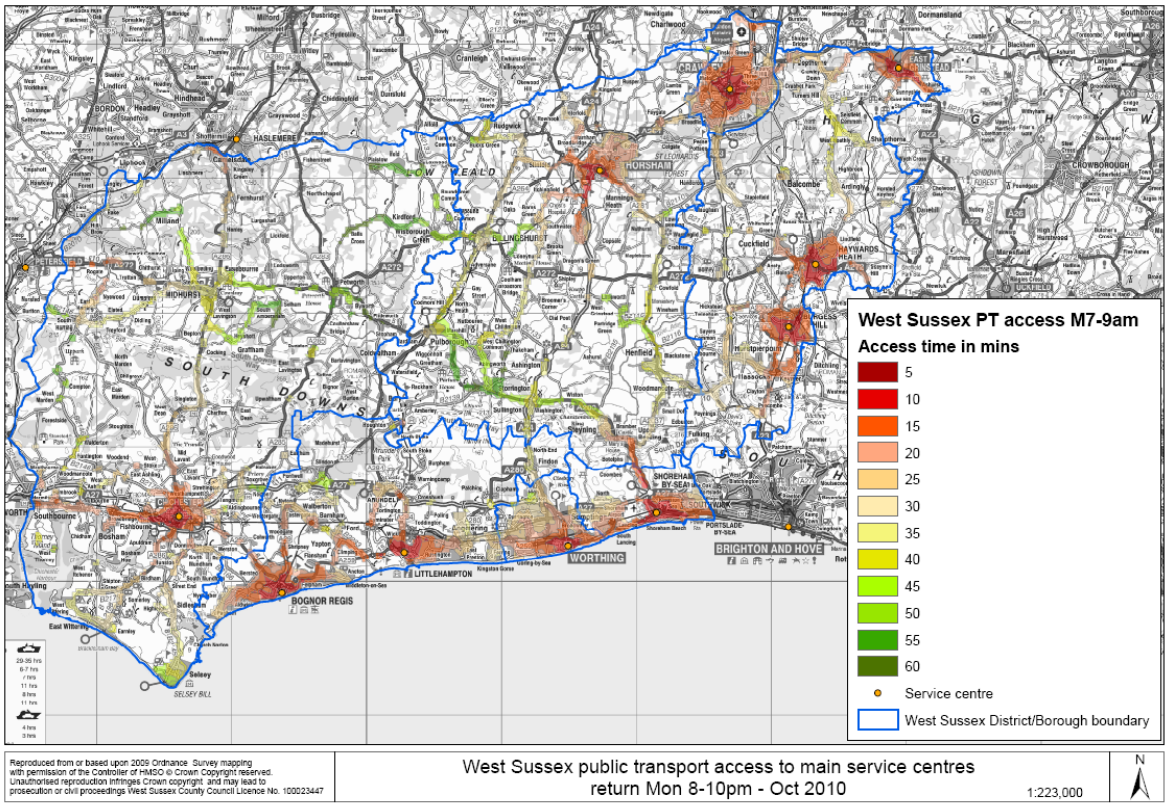
At the same time, the accessibility mapping can be used to help identify and classify the location of “gateways” and “hubs” (see Section 3). It quickly becomes clear, for example, that such locations will often be outside the boundary of the SDNP itself, and at the same time serve both nearby residents and visitors from further afield. Identifying these locations and ways of developing them to enhance the SDNP can make an important contribution to policy development and improved access arrangements.

Existing data and analysis

The constituent counties have undertaken individual town or countywide assessments, at different times, which are listed in the Inventory. It would be fairly straightforward to produce an accessibility map for the counties covering

the SDNP, based on access to major settlements, similar to that done in 2010 by West Sussex CC. This is an important supplement to the maps which use the DfT data and shows access by public transport alone, revealing the points of access and the level of service. This form of public transport accessibility mapping is well established and nationally recognised, although currently mostly used in relation to parking standards. The West Sussex map is shown in Figure 3 below.

Figure 3 Sample accessibility map of public transport access to main service centres in West Sussex



Obtaining new data and analysis

In terms of the SDNP, the map should not just be for a typical weekday, am peak and evening, as is currently undertaken (although this is useful). Sunday service maps are essential, and should not prove too difficult. For example, East Sussex has an interactive map which shows weekday and Sunday services. This is included in the Inventory. (See also Appendix A.)

While valuable in its own right, a map of the visitor attractions in the SDNP, with an assessment of visitor numbers, would also reveal which major attractions have public transport access problems. The Sunday map is essential to assess this. The OS has data on attractions and these can be mapped, and data on visitor numbers could then be added as available.

Implications for policy

In policy terms this would make transparent those popular attractions which have poor accessibility from the main sources of visitors, and thus identify possible areas for new or improved services.

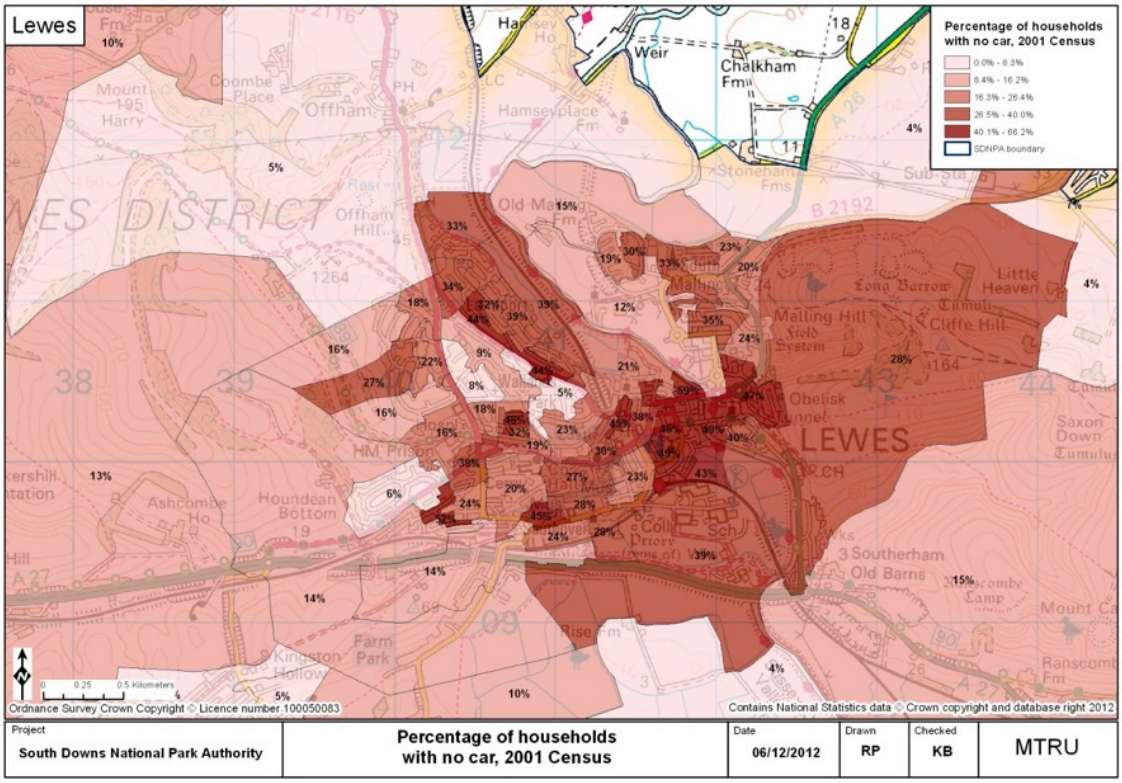
Accessibility and local residents

Existing and future data

The most important source for this will be the 2011 Census. However, data for 2011 were not available when this report was prepared for some key categories, including journey to work, but some are due by the end of January 2013, with the complete work journey data available by the end of October 2013. We suggest that some of this mapping work is delayed until the most up to date information can be used. It is considered that household income data, car ownership data, and accessibility data could be combined as soon as it is available to provide an indication of where inadequate transport is causing problems for the local population.

Some 2001 data has been analysed as a feasibility test, and this shows high car ownership in many areas, but some clear pockets where this is surprisingly low. An example for Lewes is shown in Figure 4 below.

Figure 4 Sample map showing household access to cars



The 2011 data can be inspected very quickly to see if this issue is still important, and mapped as appropriate.

4.2. Road traffic and Parking

Existing road data
The main source of road data identified for this report is the traffic counts, both automatic and manual, undertaken by the highway authorities. There is supplementary data from the surveys of residents and visitors which contain both qualitative and some quantitative data, and from driver surveys undertaken as part of the development of traffic models. These are described in more detail in the inventory.

Table 2 July traffic flows on WSCC roads within the SDNP

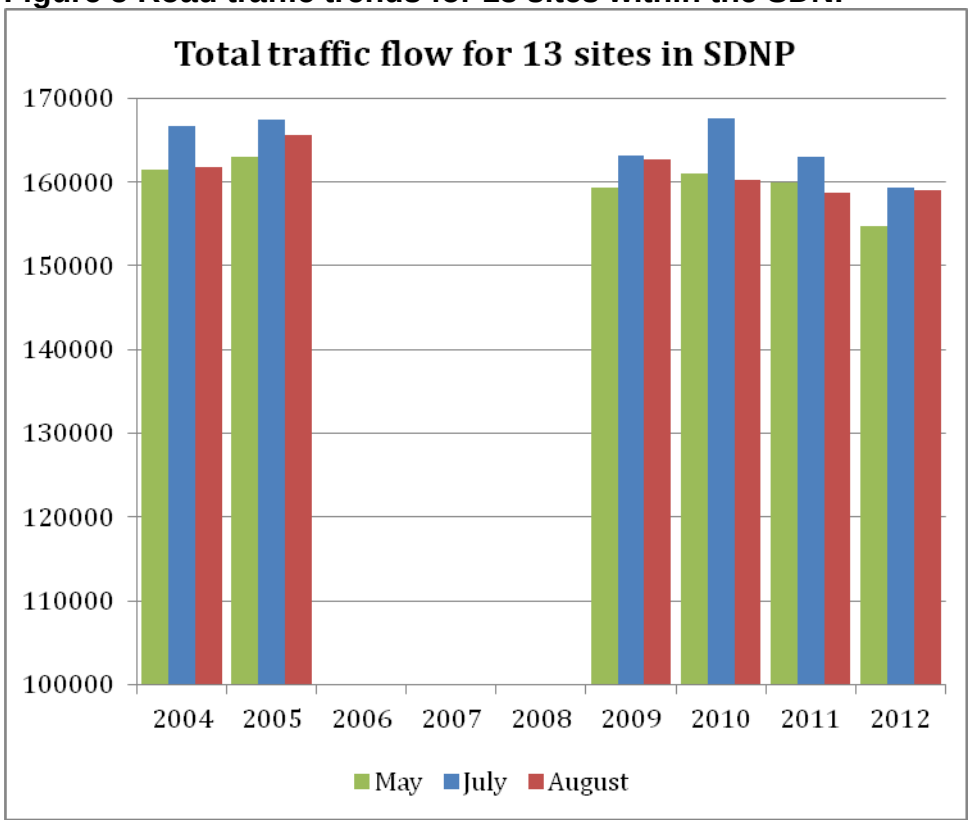
	2004	2005	2006	2007	2008	2009	2010	2011	2012
A285 Duncton 1						7613	7381	7132	6658
A286 Grinch						6214	6012	6015	5278
Titnor lane							9287	10704	11122
A283 Petworth							7425	7355	7075
A29 Slindon			14833	14708	-	-	14836	14340	14316
A29 Bury	12660	12390	-	12383	12574	11632	12085	11486	11260
A272 Midhurst		11329	-	-	-	10773	11017	10787	10491
A280 Findon	15856	16274	-	16452	-	-	16277	16462	16221
A283 Shoreham	22123	22330	-	-	22611	22478	23431	-	21993
A283 Washington				20730	-	20284	20642	20639	20462
A283 Northchapel	8607	8199	-	-	8642	8428	8657	8543	7999
A284 Arundel	7720	7494	-	7756	7653	7559	8003	7311	7333
A285 Duncton 2	6674	6557	-	-	6817	6433	6506	6410	5835
A286 Singleton	8176	8945	-	8318	8887	8356	8769	8361	7581
A286 Fernhurst	9475	9820	-	-	9805	9680	9450	9470	8598
B2139 Amberley	9259	9531	-	9903	8287	9819	10180	9831	9831
B2141 Chilgrove	3732	3725	-	-	3749	3770	3780	3786	3684
A280 Angmering	15852	16505	17068	-	16316	15831	17071	15987	16875
A24 Washington	35174	34361	-	-	34152	32197	32338	31918	31686

Source: WSCC web-based count data

Thus the basic data on flows is readily available, but in a variety of formats. West Sussex County Council has a very comprehensive web based source of data which is also capable of filtering out local and national events which might distort comparisons. Its base year is 2003, and flows are entered as soon as they are available on a monthly basis. There is thus already data for November 2012 from some sites. WSCC themselves extracted the SDNP sites to assist with this project, and results for July and August, which might be expected to be important for visitors to the SDNP, as well as a more typical month (May) have been put in a spreadsheet to be analysed for this report. Table 2 above shows the July data.

This data set illustrates the important national effect now being called “peak car”, as Figure 5 below reveals. This displays data from the last 13 sites from the table above which have both pre-recession and post-recession counts.

Figure 5 Road traffic trends for 13 sites within the SDNP



Source: WSCC web-based count data

Obtaining additional data - Flows

Although some basic count information was supplied by the other highway authorities, the West Sussex data enables the setting of a template which could be circulated to local authorities with a request to populate it. In the longer term it should be possible to again create a common approach to the traffic database, which would have some advantages to the local authorities themselves, as well as the SDNP. For example, there are occasions when development will have impacts across LA boundaries, and it will be helpful to have contextual traffic information in a compatible format.

Most data is from automated counters, manual counts can give a more detailed account of the different sizes of vehicle but are expensive and thus are intermittent and do not provide a comprehensive picture.

Obtaining additional data - Journey purposes, origins and destinations

For the journey to work, some local 2011 census data should be available early in 2013. Full results including detailed origin and destination data are not due until late 2013. The 2012 visitor survey has some focussed data for the SDNP which indicates mode split and this is being finalised at the time of writing. These two represent the best sources of data of this type. Roadside interviews have been undertaken for traffic modelling, but they are now

somewhat out of date and, as would be expected, had very low sample rates for commercial vehicles. This is discussed further in the inventory entry for the WSCC traffic model.

It is important to stress that traffic models are usually developed, calibrated and validated for specific scheme related purposes (for example for town bypasses), in particular the prediction of road traffic in future years. The recent WSCC model upgrade improves on the earlier version but is still seen by them as an interim step towards a more comprehensive approach. It remains true that such models are useful in terms of road networks, but they are not effective in terms of mode split or non-work travel, and do not directly include walking and cycling. For the SDNP, this means that a wider range of tools is needed, and the input data, rather than the outputs, of traffic modelling are the more useful resource. It is suggested that the SDNPA set out information which might be useful for its functions which could be included in any data collection for local or countywide traffic models.

Obtaining additional data - network stress
In conventional traffic analysis, flow and road capacity data are used to assess where pinch points or stretches of road are congested. However, for the SDNP this will tend to be at specific locations and times. Thus there would need to be a more focussed approach. This should also include car park surveys. Further analysis would be needed to assess stress points on the road network and associated car parks in the SDNP.

Data and road policy
Estimates of network congestion, or car park overflows, can reveal where demand is high, and thus indicate where greater use of sustainable modes, and addressing local capacity issues would be helpful. This would include the entry and exit points from popular car parks.

Accessibility analysis, which defines the potential for travel, can assist in a multi-modal approach to solving traffic problems, and indeed requires car travel times as inputs to its calculations. In the past these have been derived from journey time surveys or even traffic models, but nowadays there are useful alternatives.

The DfT already uses SatNav data to provide average speeds around the network, and it should be possible to extend this to specific routes at specific times of day, for example related to attractions and other relevant sites in the SDNP. This should also allow a picture to be built up of how long any stress might occur and whether it coincides with other demands on the road network. This in turn would allow an integrated approach with transport policies related to general traffic in the area, as well as that related to the recreational functions of the SDNP.

SatNav data and mapping systems which show congestion based on real time movements from the GPS positioning which they use can be investigated. The availability of GPS data for other purposes can also be explored, for example monitoring of the routes taken by goods vehicles. Also raw GPS data

are provided to the DfT under licence conditions by commercial third parties. The DfT holds processed origin and destination data derived from this datasource, which apparently can be obtained subject to TrafficMaster's approval free of charge. This could be worth investigating, although it is important to note that the beginning and end 500 metres of each trip is omitted for privacy reasons, and the data sample is not representative of all vehicles on the roads.

Road casualty data

Road casualties are the extreme end of conflict on the roads, and traffic impact on local communities. While casualty data does not fully reflect traffic impacts, they do indicate patterns of intensity. The Counties have road casualty data, which are analysed to county level. There are also mapped facilities online such as http://www.road-injuries.info/map.html that can be used for analysis at the local or site level. West Sussex has its own interactive map which shows casualties by severity. There are currently no data analysed at the level of the SDNP area, but this could be achieved in collaboration with the LTAs. Data could be analysed to reveal any particular road safety issues affecting the roads in the SDNP, and this could feed into SDNPA policy, for example in relation to speed management. It is worth noting that new Government guidance on speed limits specifically mentions the issue in relation to National Parks: *"A speed limit of 40 mph may be considered for roads with a predominantly local, access or recreational function, for example in national parks…"* ("Setting Local Speed Limits" Circular 1/2013, DfT, January 2013)

Parking Data

There appear to be no comprehensive data on the locations and capacity of car parks in the SDNP. The Traveline website provides details of most car parks in settlements, including ownership, hours of operation and charging regime, but does not have comprehensive coverage in rural areas. Real time capacity information is available only for a small number of town car parks. A different collation of car parks is found on other websites such as Carparks4u.com and Parkopedia, although the information on capacity is not always provided, and the coverage is not comprehensive in rural locations. District Councils rather than Counties operate most public car parks. Some Parish councils also own public car parks. Consequently, collating car park locations and information throughout the SDNP would involve collaboration with the 12 district and city councils within or near the SDNP, the various parish councils, and other providers such as the National Trust. Consideration will need to be given as to how to collate, audit and map car park information in the SDNP. There will be various ad hoc survey data of car park usage undertaken by District Councils and others, but these are unlikely to be comprehensive, consistent and up-to-date.

Conclusions

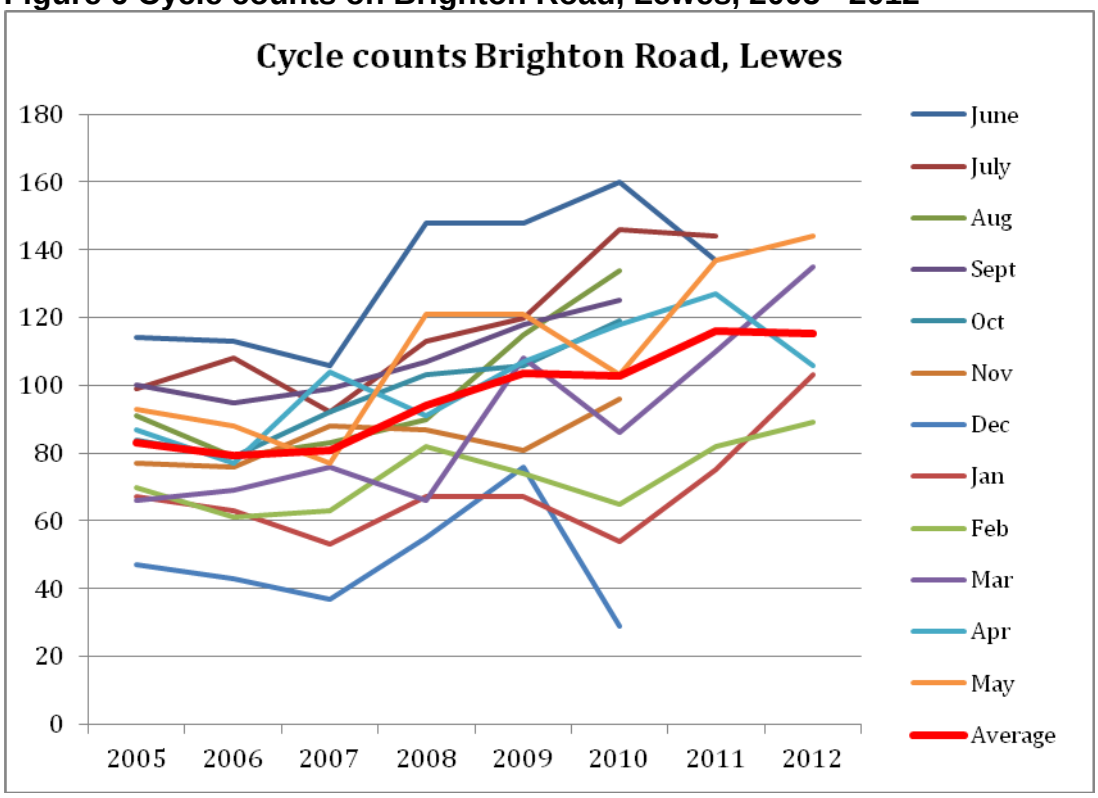
Identifying key visitor attractions (either individual locations or continuously accessed such as the South Downs Way) would help to define where more detailed work could be undertaken to assess the performance of the road network and parking in their locality. This would inform a policy discussion on

how best to use it. This links to the definition of transport hubs and how they can be used to achieve the policy objectives of the SDNPA and the local authorities.

4.3. Walking and Cycling

Existing data – Flows
There are very few data on walking or cycling flows collected by highway authorities, and virtually none in the SDNP which can be compared to other public transport passenger or private vehicle counts. West Sussex CC has individual cycle surveys for the centres of Chichester, Crawley and Worthing, but none in the SDNP. East Sussex has counts for some sites, in particular a time series for Lewes, shown in Figure 6 below.

Figure 6 Cycle counts on Brighton Road, Lewes, 2005 - 2012



Source: ESCC cycle counts, MTRU calculations.
Note: 2010-11 have fewer than 12 months represented in the average.

As with other local authorities, Hampshire does not have cycling data available from its permanent sites, but has some ad hoc surveys, and cycles are included in some manual counts. None were identified for the SDNP area, or specifically targeted towards recreational cycling.

There was generally very little data on walking flows, apart from the occasional survey to assess whether a pedestrian crossing was justified. The only sites in the SDNP area supplied were from East Sussex CC, again for Lewes, but for one year only (May and June 2010).

Journey purposes, origins and destinations
The main source for all agencies has been the Census, and the 2001 version was being used to provide data on mode split for the journey to work. For the journey to work, local data from the Census should be available early in 2013. The visitor survey has some data for the SDNP which indicates mode split and this is being finalised at the time of writing. The West Sussex Household Travel Survey (2006-2009) also included data on journey purposes, journey lengths and mode of travel. These represent the best sources of data of this type.

Networks
As part of the data inventory, the separate maps for rights of way have been collected from the counties and entered into a standard map of the SDNP area. These are included in the inventory and with minor differences, provide a reasonably consistent view of the footpath and bridleway networks.

Obtaining additional data - Flows and journey purposes
It would be useful to gain better insight into the use of recreational cycleways and footpaths. Summer or weekend surveys are not usually undertaken for road network planning, but should be relatively straightforward to organise in this context. As stated above, the visitor survey will also provide some useful information on use of these modes by non-residents.

It might also be possible, as Hampshire CC staff have suggested, to find site-specific data on general cycle use from workplace travel plans. However, analysis of the imminent release from the 2011 Census will be the most useful source for this purpose.

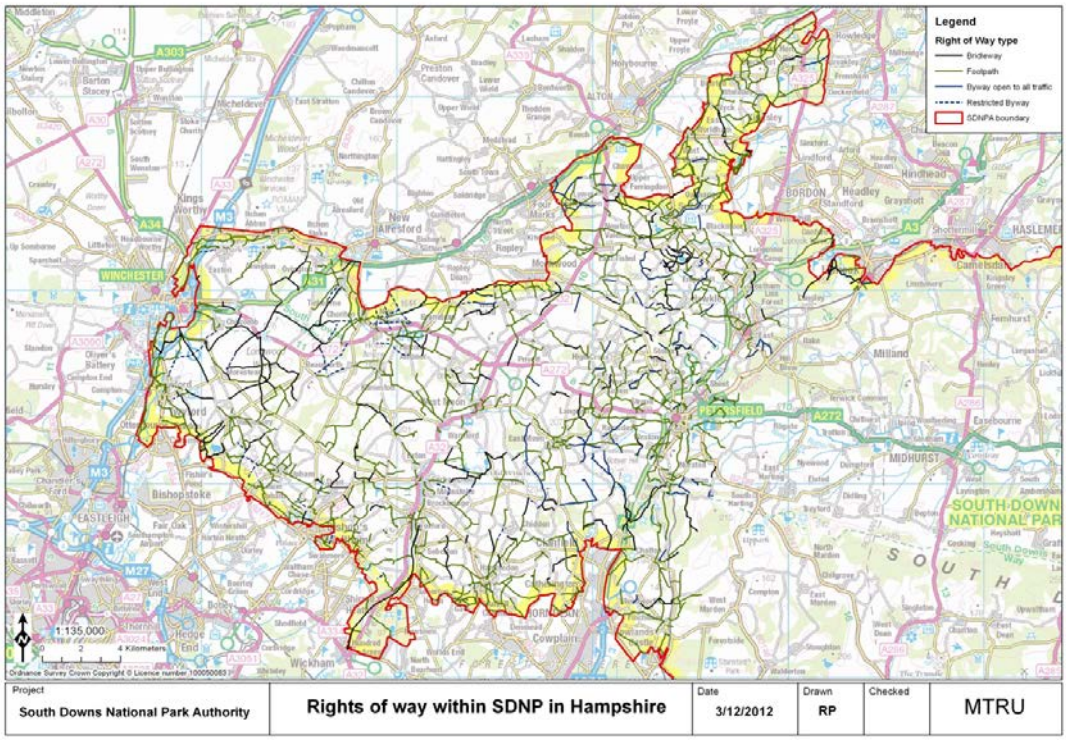
Accessibility
Accessibility mapping needs to be developed further for walking and cycling, since these tend to be treated slightly differently from other modes, for example walking in the DfT approach. With this qualification, such mapping is useful for assessing the potential for walking to meet the daily requirements of local residents.

For visitors, the act of walking or cycling itself is likely to be a primary purpose, rather than seeking access from one place to another (although this may occur as a result of enjoying a walk or bike ride). This needs a different approach in which the networks and their access points are studied in relation to their potential or existing use for recreation. A brief for such a study could perhaps focus on a key part of the network such as the South Downs Way.

Data and walking and cycling policy
The overall lack of data for the non-motorised modes was expected, but in terms of the SDNP there is a particular gap in terms of recreational use, which needs to be addressed. There is also a network issue which appears to be present from the mapping exercise. The Hampshire area of the SDNP clearly has a less connected Right of Way (RoW) network than the other two counties. This needs to be analysed further and work undertaken with the

County to discover why this is and whether it needs to be addressed. A small scale version of the HCC RoW map is shown in Figure 7 below.

Figure 7 Rights of Way within SDNP in Hampshire



Conclusions

Identifying key visitor attractions (either individual locations or continuously accessed such as the South Downs Way) would help to define where more detailed work could be undertaken to assess where more detailed surveys of walking and cycling would be most useful. This would inform the planning of transport access points for the SDNP, and how they can be used to achieve the policy objectives of the SDNPA and the local authorities. It would be possible to integrate this work with a study of how people start their walk or cycle ride in the SDNP – how often is this by car? If this is widespread, there might be ways of encouraging the use of foot or cycle for the whole trip, for example by making more small bike hire points available, linked to places where visitors are staying. For visitors from nearby urban areas, suitable access points for public transport can be identified and suitable infrastructure provided.

4.4. Rail

Existing rail data

There are three main sources of rail data identified for this report. These are the Office of the Rail Regulator (ORR), Network Rail, and the train operating companies (TOCs). Use of service and station information in accessibility modelling is also relevant. Thus the basic data on flows of passengers through stations, split between season tickets, full, and concessionary fares, is available through the ORR, and listed in the inventory. It is updated

annually. There should be reasonably good correlation between season ticket use and the journey to work. Overall growth in rail use locally has continued through the recession, up 5% between 2008 and 2011. This contrasts with a fall in car use in the same period. Again this is in line with national trends.

A request for further details on origins and destinations, and fare type, from Network Rail did not produce as much SDNP specific data as we sought. However, much useful data is contained within the Route Utilisation Strategy (RUS) for the wider Sussex area. The most recent data in the RUS (published May 2009) is from 2007 and the RUS is again included in the inventory. The focus is more on the towns and commuting, particularly into London and Brighton, but the growth in rail use locally is also very clear. The London and South East RUS is more recent (2011), but is much less relevant to the SDNP and its immediately surrounding areas. In addition, Passenger Focus manages the National Rail passenger satisfaction survey, and this may yield some useful findings on a six monthly basis.

In common with bus data, finer details on passenger flows, held by the TOCs, are considered commercially sensitive. This is not primarily because of potentially competing services on the same route (although coach services are relevant), but because tendering for rail is essentially a bidding process for a fixed term monopoly. This has many problems, for example in terms of long term investment, but the issue of established operator advantage, common in tendering for supported bus services, is just as important for rail franchising.

The lack of route section-by-section origin and destination (O&D) data for rail is perhaps surprising, considering that some data should be needed to validate multi-modal transport models. It is apparent that this validation may be more limited than might be expected. It is possible that the Department for Transport, via the National Rail Travel Survey - instigated by SRA – could gather O&D data for rail trips, although unfortunately this survey excludes weekends and school holiday periods.

In terms of accessibility modelling, the potential for rail is clear from the service and station inputs. Season ticket data and the RUS capacity analysis allow some assessment of the dominance of peak travel, although there is some variation between stations in the SDNP area. Overall it is clear that significant off peak and weekend capacity should be available for non-work purposes.

Obtaining additional data

There are at least two possible routes to obtaining further data that could be pursued.

The first is by drawing very specific tables designed to balance the requirements of the SDNPA with minimising commercial value – difficult but not impossible. An example would be creating generic analyses, such as travel to the SDNP from nearby urban areas at the county level, or in sub regional groups, or travel from London as a whole, rather than specific sub-

regions. It would still be preferable to get finer geographic detail. This could be pursued through Network Rail and the local train operators.

The second approach is to draw on direct survey work, either existing station surveys, or those undertaken for different purposes by local authorities or the SDNPA itself.

Both of these are likely to be of value to the local authorities in their transport and development planning as well as the SDNPA.

Rail policy
Accessibility analysis, which defines the potential for travel, does not depend upon passenger surveys and the impact of rail services is clear. It can be seen from the higher levels of accessibility close to stations in both the access to employment and other facilities, and access from centres of population to places in the SDNP.

Even from the station flow data, which shows season tickets (mainly commuting) separately from full individual fares and concessions, the potential in off peak capacity is apparent, particularly at weekends and in holiday periods. There is an opportunity to work with the operators and Network Rail using the wider evidence base created by the Inventory and any subsequent work.

Conclusions on rail
The potential for off peak rail travel to serve the SDNP is clear, even from the current limited data. Journey to work data from the 2011 Census will provide an interesting cross check on the trends already identified in the ORR data and the Sussex RUS. Identifying key visitor attractions (either individual locations or continuously accessed such as the South Downs Way) would help to define where more detailed work could be undertaken to assess available rail capacity and how to use it best. This links to the definition of transport hubs and how they can be used to achieve the policy objectives of the SDNPA and the local authorities. Additional analysis should focus on this specific purpose and would allow for additional co-operative work with the operators and Network Rail.

4.5. Bus

Existing routes and services (supply)
Information on the supply of bus services is reasonably good, and improving with online facilities. The bus operators have different information systems of variable quality, usually including timetables but not always maps. The LTAs have compiled their own bus route maps which although different from one another, at least have the merit of including all (or most) of the bus operators' routes. Bus timetables tend to be more readily accessible than mapped information, perhaps because they are easier to revise in response to service changes. Service changes appear to present a significant hurdle for the production and maintenance of comprehensive bus route maps. For example,

at the time of this study West Sussex could only supply an out of date map with hand amendments following route changes. The best mapping for the SDNP area is to be found for East Sussex and Brighton & Hove, both of which have interactive online maps, although they are not consistent in the information they display, and their functionality appears not always to be reliable. Moreover, the East Sussex map shows only routes, not stops. Despite the obstacles we have established that the county bus maps can be fitted to the GIS base with reasonable accuracy at the SDNP level, although there are some discrepancies that are harder to resolve within the urban areas. A sample map has been produced showing Sunday bus routes in West Sussex, and this could be extended for the whole SDNP.

Bus services can only be accessed at bus stops (except of course for hail and ride or demand responsive services) and thus bus stop locations are a critical part of the public transport offer. Bus stop locations are available from the NaPTAN database, and these can be mapped on the GIS base. This information is used on various public transport and journey planning websites and mobile applications, linked to service timetable information. It will be useful for any future bus boarding data to be referenced with the NaPTAN bus stop codes. However, bus stops can be poorly located and confusing, and often poorly indicated and with inadequate service information. An example of this is at the village of Pyecombe, East Sussex. This has a population of merely 200 people, and yet it apparently has eight bus stops used in different combinations by the four bus routes serving the village. The Metrobus route takes a different route north and south. For anyone other than a determined local resident, discovering where and when to board a bus would be challenging to say the least. Mapped bus stop data therefore should be supplemented with quality audit information. Bus routing and bus stop issues remain to be explored, as well mainstream issues such as service hours, frequencies and interchange.

Existing user demand

Data on bus passenger demand are particularly problematic for the following reasons:

- First, the multiplicity of operators (around 10 are listed in East Sussex for example) makes any comprehensive data gathering an arduous task;
- Second, apart from supported services and journeys, operators are under no obligation to supply data, and may be reluctant to do so because of commercial sensitivity;
- Third, even for supported services, the LTAs have differing approaches to procurement, and their demands for data from operators varies. For example, Hants CC only recently requested passenger data from the operators, whereas East Sussex CC has done so for some years;
- Fourth, bus passenger data is collected in different ways depending on the type of ticketing, and ticketing technology in use, which varies between operators; and

- Fifth, data relating to supported or tendered services may not be consistent between authorities, because of different procurement and monitoring procedures.

The reality is that in the deregulated bus environment it is difficult to achieve a comprehensive and consistent picture of bus passenger demand. This study achieved some data from some bus operators, but it does not provide a comprehensive picture. Similarly, updating and monitoring demand would require similar repeated efforts, and operators are under no obligation to provide demand data. Integrated transport planning is thereby made more difficult. However, rural transport improvements can be achieved in the deregulated and privatised environment, for example Lincolnshire County Council's "InterConnect Plus" initiative. *(See http://microsites.lincolnshire.gov.uk/poacherline/acorp/awards-2007/1st-place-winner-local-transport-integration/60317.article)*

A further issue is that modern ticketing and tariff systems increasingly involve pre-payment and zonal, "go anywhere" or flat fare options, which means that for the majority of bus passengers only the boarding point is registered, not the destination.

Therefore the best chance of obtaining good data on bus passenger demand is on-bus surveys or at-bus-stop surveys of passengers for a sample of journeys. Although relatively expensive compared to ticket machine data, this method potentially can provide more information, being able to collect destinations as well as origins, and also information on journey purpose and passenger profiles. This sample information can be applied to bus boarding data where available to provide a much fuller picture of passenger demand.

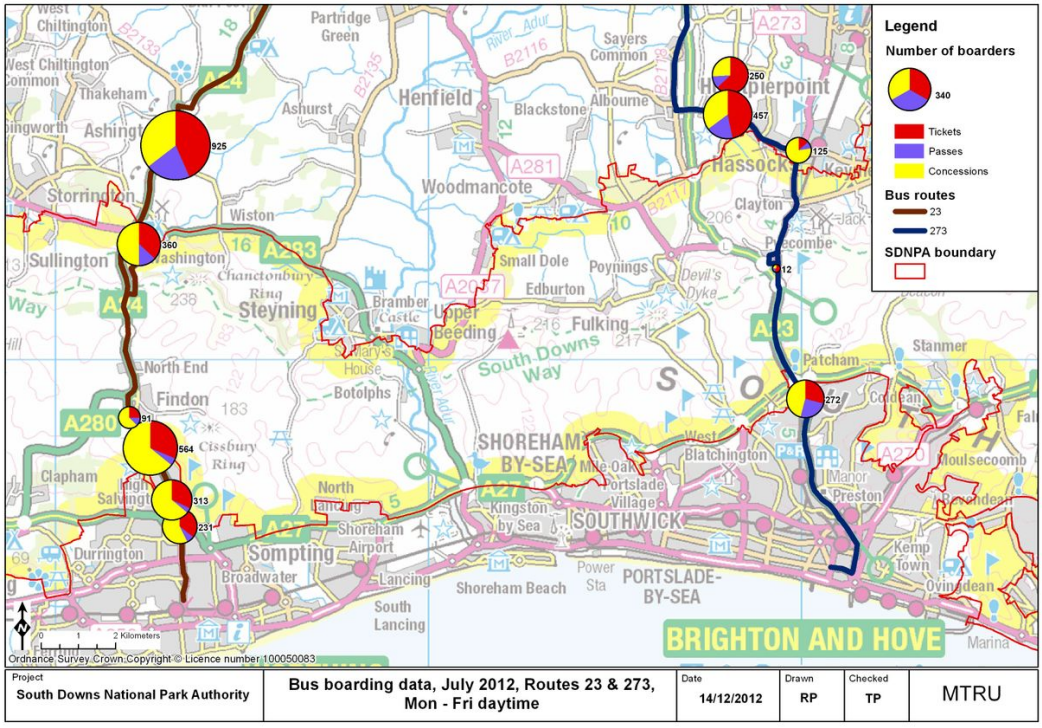
The Inventory includes some sample bus passenger surveys (three supported services in Hampshire, and four in West Sussex), and also a survey of both supported and commercial services that is planned to be undertaken by East Sussex in 2013. There may be scope for the SDNPA to commission a larger sample of such surveys, for example to cover weekend use, and more comprehensive sampling of routes serving the SDNP. Another advantage of this approach is that, unlike operators' data, it could be made consistent throughout the SDNP.

Meanwhile, Figure 8 below indicates the sort of analysis that is possible given a cooperative operator, in this case Metrobus, and includes data for two routes through the SDNP (one commercial, one supported). This shows the total boardings within and near the SDNP for July 2012 (a small number), and the breakdown of boardings according to ticket type.

The sample map of Metrobus boarding data shows a significant proportion of passengers boarding with a concessionary pass (typically between one and two thirds). Concessionary pass holders outside London and Metropolitan areas made on average 73 journeys per year by bus. This equates to 36 round trips, which is one every 10 days. (Source: DfT concessionary pass statistics 2012) Given that most of these trips will be in urban areas, the

frequency of bus trips in rural areas is going to be very low, even for all purposes combined. It is also worth noting that the average reimbursement to operators in non-met areas was 99p per journey in 2011 -198p per round trip - (forecast to be down to 91p in 2012), yet we know that subsidies to rural services can be much greater than this, with Hants reporting over £7 per passenger journey on one route. All the counties have been reviewing supported services and making cuts in recent months.

Figure 8 Bus boarding data for two SDNP bus routes in July 2012



4.6. Mode split

The means by which journeys are made to, through and within the SDNP is the key to many planning issues, including the impact of travel on the environment, the capacity of the infrastructure, and the extent and quality of access to facilities and activities. Ideally there would be data on the proportion of travel and trips undertaken by each mode for all journey purposes and for all journey types by residents, different categories of visitor, and people who are employed in or otherwise travel to the SDNP. The mode split data available are (or soon will be):

- Journey to work, both by people employed within the SDNP, and resident in the SDNP and working elsewhere (2011 Census);
- Journey to the SDNP for recreation purposes by different categories of visitor including residents of the SDNP, day visitors, and staying visitors (2012 visitor survey);
- Selected travel purposes for sample of residents of West Sussex (Household Travel Survey, 2006-2009).

The main gaps therefore are for non-recreational travel by all categories of people within the SDNP, and the mode split of all travel and trips made by residents of the SDNP. Overall mode split data must be collected from household surveys. These are rarely undertaken in the UK apart from the National Travel Survey, for which the small sample makes it unsuitable for planning at the local or even regional level.

Regarding the planning of travel by residents of the SDNP, the lack of mode split data at household level will be a constraint on prioritising and targeting sustainable transport measures, and in particular on measuring their impact over time. The journey to work (decennial Census) data is useful, but does not cover the majority of travel or travel purposes (nationally, commuting accounts for 19% of all travel distance and only 15% of trips). Moreover, the origin and destination matrices from the 2011 Census are not due until after October 2013.

Household surveys compatible with the National Travel Survey method would be the best option for rectifying this data deficit. Such surveys would also provide profiling information about the population, and would provide the context for the data on recreational travel by the resident population.
It has to be acknowledged, however, that this approach, while commonplace in towns in the rest of northern Europe, leading to high quality transport and land use plans, is fairly rare in the UK.

For travel through and within the SDNP by non-residents and for non-recreational or non-work purposes, there is no readily available method of plugging the data gap. Interview surveys would be needed both at the roadside and on rail and bus services. Undertaking such surveys to establish mode split of travel in these categories is unlikely to be justified, not least because it is not susceptible to local planning or influence.

The Visitor Survey provides an appropriate source of mode split data for all recreational visits to the SDNP, and can be repeated and enhanced as required to monitor changes in visitor activity and travel patterns.

4.7. Satisfaction

Levels of satisfaction are gathered in the 2012 Visitor Survey, although the reasons behind the answers given appear not to have explored. There are other satisfaction surveys, such as the transport satisfaction survey for East Sussex, which gives comparative results on a range of transport issues, but does not distinguish recreation travel for the SDNP.

There is an inherent difficulty with measuring satisfaction at the point of use, as is the case with the Visitor Survey, in that one is able to interview only those people who have already decided to undertake the activity or journey. Just as useful, although difficult to collect, would be the views of people who had either never undertaken the activity, or had done so and subsequently

given it up. For example, taking the example of bus travel, the overall quality of services is by definition insufficient to attract those who do not use them. Thus in planning to expand the use of buses for travel to and within the SDNP, the levels of satisfaction expressed by passengers will provide limited guidance.

Despite the difficulties, it is important for the planning of the SDNP to take account of those features of the overall recreational offer that are attractive, and those that are a barrier to the use and enjoyment of the SDNP. It would also be helpful to know the relative importance of these factors, and to be able to relate these to different visitor (or potential visitor) profiles. This information would help to inform decisions about the development of access and facilities, and the orientation of marketing and other information.

5. Transport data management, use and enhancement for SDNP

5.1. Data Management

The Inventory and Supplementary Data List

The Inventory includes what are judged to be the most significant data sources. There are many other sources of data and information relating to transport in the SDNP, which are less significant either by having less rich data, or by containing only secondary data, or by covering only a limited area of the SDNP. Such sources uncovered during the course of this Phase 1 study are set out in a separate Supplementary List (also a Word document). The list is organised under these headings:
- Wider areas including the whole of the SDNP;
- Local data and studies;
- Key plans; and
- Other data sources (weblinks).

Achieving consistency across SDNP

Some data sources are consistent across the region or even nationally (e.g. decennial census, accessibility, road casualties) by virtue either of being collected nationally in a standard format, or of relating to a particular mode that is organised regionally or nationally (e.g. Network Rail and Highways Agency).

However, some important data are not held in a consistent way between the constituent authorities of the SDNP. The type and presentation of data vary in style and quality between the different authorities. Examples of inconsistencies include:

- Bus route mapping and other data: inconsistent between LTAs and between operators;
- Bus passenger data;
- Road and path mapping and fault reporting; and
- Accessibility mapping.

For the purposes of the SDNPA, it is desirable to achieve consistency between the local authorities, and Inventory entries indicate where action can be taken. There is an important leadership role for the SDNPA to play in getting transport data onto a more consistent footing across the SDNP, and in cross-fertilising best practice in the process. All of the constituent authority areas (not just the SDNP areas) could benefit from such data improvements, and it is possible that cooperation between them could achieve cost savings.

An example of where greater consistency across the SDNP would be useful is the online mechanisms for reporting faults on roads and paths. East Sussex has an interactive map but it is difficult to use especially for footpaths. West

Sussex has a similar system, but requires the user to register and sign in; It is not as user friendly. Faults on paths can also be reported, but the County's interactive iMap still requires the user to identify path number and the grid reference – not something most people could handle. There is also a method to report faults on site using an app with a smartphone to photograph and automatically locate the fault. Hants reporting has a more rudimentary mapping using Google maps. However, it does show problems already reported, and it is possible to track progress on them. The real problem is that it does not allow reporting of problems on the footpath and bridleway networks, only roads. Exploring ways of achieving commonality to these systems could be useful.

Extending best practice

Variations in the type and format of data held by the constituent LTAs allow comparison, and hence evaluation of "best practice". Further comparison could be made with LTAs elsewhere, although that has not been attempted in this study. For existing data and information series, rolling out best practice is closely tied to the objective of achieving consistency across the SDNP. The aim will obviously be to achieve data that is consistently good, which involves using the best methods available as between the constituent LTAs, or indeed as adopted by LTAs elsewhere. It must be acknowledged, however, that the SDNP forms only a part of the area of each LTA, and changes in practice may need to deliver benefits to their wider areas. SDNPA can act as a catalyst in extending best practice and achieving consistency. The areas already identified include:

- Consistent accessibility mapping across the NP building on work already undertaken by the LTAs, and as demonstrated in the GIS mapping associated with this project;
- Interactive digital public transport maps, using the East Sussex and Brighton & Hove facilities as the baseline in terms of usability and functionality;
- Road and rights of way map base, with interactive features to allow fault reporting and monitoring. This should combine the best features of each of the three different county systems, as described in the Inventory; and
- Attractions data and mapping.

Updating

The data and evidence base assembled in this study can continue to be developed, updated and improved. The inventory entries indicate whether data are static or updated periodically, and indicate the ease with which updating can occur. The Word based template can easily be used to add new data sources as they are created.

5.2 Local and problem-specific data (including “hotspots”)

No comprehensive data have been found on locations with major impacts arising from SDNP visits. Some examples are mentioned in various documents but there appears to be no overall picture of how many there are, where they located, or what the nature of the impacts might be. Two examples have been highlighted in documentation reviewed for this study within the SDNP itself, namely Alfriston and Petworth, where traffic and parking volumes detract substantially from the quality and character that people come to experience.

In the case of Alfriston, locally-collected information could be used to plan and assess potential solutions, including through the Neighbourhood Planning process. Although there are no data across the SDNP as a whole, there is likely to be a fairly limited number of cases as extreme as Alfriston and Petworth, making targeted information collection a feasible option as and when action is being planned. Even so, almost all villages and towns within the SDNP suffer some traffic impacts, and these impacts could increase in line with increased use of the SDNP. This is recognised, for example, in the West Sussex Local Transport Plan, which refers to the impact of visitor numbers on the rights of way as well as the road network.

Ways need to be found of assessing the sensitivity of settlements within the SDNP, and finding options for the mitigation of traffic impacts. Such protection measures are regarded as a necessary counterbalance to policies for promoting access to the SDNP.

In addition to “permanent” hotspots such as described above, it is important to recognise the traffic and access issues generated by events on particular days of the year. Examples include Goodwood Festival of Speed; West Dean Christmas market; and Ditchling Beacon New Year’s Day. High levels of access by sustainable modes can be achieved for such events using a variety of measures. The access arrangements for bus and rail travel to the Amex stadium at Falmer provides an example of how sustainable access can be maximised.

5.3 Mapping and GIS

For Phase 1 of the transport study, a GIS platform has been established using ESRI ArcGIS software. Base mapping at a number of scales has been obtained from SDNPA and Ordnance Survey OpenData for the SDNP and surrounding areas. Various Census area boundary layers have also been obtained from SDNPA and ONS/OS. Data have been used to prepare a range of maps and layers illustrating the possibilities.

The mapping prepared includes:

- Accessibility mapping for land use planning as well as transport planning. Consistent and detailed accessibility maps can be prepared quickly and at relatively low cost using local and national data. The national data relate to accessibility by a combination of walk and public transport, and can be prepared for access to a wide range of destinations and for a range of time bands (e.g. 20 mins, 40 mins, 1 hour). Sample town maps have been produced as well as county maps. This is an important tool for land use planning, and the planning of facilities, with accessibility recognised in the Local Transport Plans as a critical spatial planning criterion. The second key purpose is revealing the accessibility of the SDNP and its attractions to visitors, particularly from the nearby urban settlements. These are particularly important in terms of visitor numbers, as shown in the recent Visitor Survey;
- Bus route mapping (supply): Sample GIS mapping has been produced to show bus routes within the SDNP with Sunday services in West Sussex. Complete bus route maps have been supplied in pdf form for Hants and West Sussex, and in interactive web-based format for East Sussex and Brighton & Hove;
- Bus stops serving the SDNP, based on the nationally-held NaPTAN database;
- Bus boarding (demand): see example on p38; and
- Rights of Way: Maps for all three counties have been produced. That for West Sussex shows, for example, the disjointed nature of rights of way between the coastal urban strip and the SDNP, particularly in the vicinity of Chichester, as highlighted in the West Sussex LTP. The network appears considerably more sparse in Hampshire than in Sussex. The impact of river systems, especially the Ouse and Rother, on path continuity is clearly indicated. These maps clearly suggest huge potential for increasing capacity by filling gaps in the network, thereby enabling longer distance and circular itineraries. This is important for determining ways of increasing access without increasing impacts. The RoW data obtained varies a little in specification between the four local authorities. The Hampshire and West Sussex data covers the whole of each county, whereas the East Sussex data only included the RoW within the SDNP boundary. There appear to be a few discrepancies between the RoW in the supplied map layers and the 1:50k base mapping in places, and in addition, the RoW categories also vary somewhat between the local authorities.

5.4 Recommendations for data use and enhancement (including filling data gaps)

Data relating to transport fall short of the ideal in two respects. First, many data are not available because they are not collected. Second, of the data that are available, most have not been collected or collated in relation to the SDNP.

Regarding the planning of travel by residents of the SDNP, the lack of **mode split data** at household level will be a constraint on prioritising and targeting sustainable transport measures, and in particular on measuring their impact over time. The only comprehensive mode split data relate to the journey to work (decennial Census), which is useful in itself, but does not cover the majority of travel or travel purposes. In addition the O&D matrices from the 2011 Census are not due until after October 2013. Household surveys compatible with the National Travel Survey would be the best option for rectifying this data deficit and is recommended as a way of underpinning both the Neighbourhood Planning and local transport planning processes. This approach, while commonplace in the rest of northern Europe, leading to high quality transport and land use plans, is fairly rare in the UK. (For travel to the SDNP by non-residents, the Visitor Survey provides an appropriate source of mode split data, and can be repeated and enhanced as required to monitor changes in visitor activity and travel patterns.)

Comprehensive **data on attractions** within and near the SDNP will need to be verified. The location and names of all tourist attractions within the UK are available from the OS OpenData "Strategi" dataset and can be placed on a GIS layer. However, these are attractions defined by the OS as such, and may not be comprehensive. There is also a need to classify attractions by type and popularity and range of facilities and accessibility, and make this data available for inclusion in third party promotional websites and mobile applications. Visitor numbers should also be available to SDNPA for the purpose of planning and promotional activity. This has wider relevance than just transport for the SDNPA and constituent local authorities, but it is considered to be vital data yet to be assembled.

Demand information across all modes is piecemeal and incomplete. Forecasts of demand are therefore also unlikely to be robust. Forecasts for specific journey categories (e.g. commuting by rail) are sometimes available. The Visitor Survey also fills a need in terms of recreation visits to the SDNP. But there are few general data on mode split, and hence mode-split objective-setting or forecasting is not possible.

Some data on **bus passenger demand** has been acquired, and it is therefore possible to demonstrate what is potentially available. However, bus data is in need of enhancement for analysis and mapping as an aid to planning and decision-making. Predicting future bus demand in response to policy initiatives is difficult and not currently modelled, but the LSTF programme as a whole should provide some useful indicators.

Traffic models exist or are in preparation for parts of the SDNP area. Use can be made of these in the planning work of the SDNPA, and there may also be opportunities to secure data enhancement on the back of surveys being carried out for model purposes. However, building a standard traffic model for the SDNP itself cannot be recommended: it would be extremely expensive, would take upwards of 2 years to get up and running, and would in any case produce little useful information on accessibility.

SDNPA should consider the potential for substantially improving data in relation to the SDNP. Examples that have emerged in this study include:

- Commissioning surveys for households within the SDNP and its immediate catchment compatible with the National Travel Survey, to gain a comprehensive picture of travel patterns and behaviour to enable monitoring of progress towards the sustainable travel objective;
- Commissioning bus passenger data surveys on bus services going to and through the SDNP, for example, by extending the samples undertaken by East and West Sussex County Councils; and
- Requesting additional data (e.g. by adding survey questions or increasing sample) from the counties when undertaking traffic surveys and particularly roadside interview surveys, which can provide journey purpose and O&D data). An example could be the Hants and Surrey joint survey Spring 2013 for joint model for M3 LEP area.

6 Towards sustainable transport policies for the SDNP

Following this study, the focus will shift from the data and evidence base to the policy making process. However, in parallel there are opportunities to strengthen the data available in support of policy-making, as described in this report.

6.1. Scope for collaborative transport policy-making

The study will need to work within a framework of split responsibilities. While the SDNPA is the planning authority for the SDNP, highway and transport planning responsibilities lie with the county and unitary authorities, together with whatever emerges through shifts towards Local Transport Bodies and Local Economic Partnerships. Thus while an important if not the primary determinant of spatial planning is transport and accessibility, responsibility for much of what determines these factors rests with other authorities. Inevitably this gives rise to the need for close collaboration between the SDNPA and the LTAs.

While such co-operation is already taking place, it might be useful for a mechanism to be established, once the SDNPA policies in the Management and Local Plans are adopted, to review progress on actions to address those policies, perhaps on a six-monthly basis. This will provide the necessary monitoring of progress towards the sustainable transport objectives, and identification of where further data and effort are needed. This is especially important since the abolition of the requirement for LTAs to publish annual reviews of progress on their Local Transport Plans.

In addition there are other agencies independent of the transport planning authorities with major influence on the quantity and quality of transport provision in the SDNP, in particular the Highways Agency, Network Rail, train operators and bus operators. Producing integrated transport and spatial planning policies for the SDNP will therefore need to be a collaborative effort, and the Transport Study must be designed to facilitate this multi-level working.

The stakeholder groups for collaborative working and/or consultation will include

- The constituent LTAs (East and West Sussex, and Hants county councils and Brighton & Hove);
- The constituent planning authorities (Districts);
- Parish councils and neighbourhood groups;
- Highways Agency (responsible for the A3, M3, A23, and A27);
- Network Rail;
- Train operating companies (TOCs) (passenger and freight);
- Bus operators;
- Sustrans;
- Local Access Forums;

- Local Enterprise Partnerships;
- Local Transport Bodies;
- Information providers;
- Local business organisations;
- Local Access Forums;
- Local civic groups;
- Other providers of facilities, attractions and services (taxis, car and cycle rental, accommodation, visitor and tourist attractions, special bus services etc.);
- National Trust;
- Campaign to Protect Rural England;
- South East Protected Landscapes;
- Walking and cycling organisations;
- Disability groups;
- South East Protected Landscapes;
- Tourism South East; and
- Visit England.

6.2. Scope of Phase 2 of the SDNPA Transport Study

Phase 2 of the transport study will be determined by the policy requirements of both the Management Plan and the Local Plan. The typical and logical process will involve:

- Identifying issues, problems and opportunities;
- Setting objectives and perhaps targets specific to planning and transport (in relation to the SDNPA's overarching objectives);
- Defining options for meeting these objectives;
- Assessing and evaluating these options;
- Developing preferred options and priorities; and
- Setting out an implementation and monitoring framework.

While the detailed study process will be a matter for further work by the Authority we can suggest an outline of its scope as follows:

Much work has already been done on issues and objectives, both by the LTAs and the SDNPA through the LSTF bid and other work. The objectives for transport and accessibility will require further detailing and refinement, however, as sub sets of the SDNP's overarching objectives.

Defining options for meeting the objectives will require consultation and collaboration with a range of authorities and stakeholders as listed above, and distinctions will be needed to address generic policies and those relating to particular places or networks.

Assessment or testing of the options will form a technical part of the Phase 2 work, and is likely to take the form of a multi-criteria objectives achievement matrix. Evaluation will involve judgements at the political level, based on the objective assessment. Development of the preferred option (or, more likely,

set of options) will involve technical studies as well as more targeted consultations.

The implementation framework will need to be developed alongside the other authorities and will need to determine *inter alia* priorities, funding mechanisms and programming.

As part of the process of defining options, or sets of measures for fostering sustainable travel patterns, Phase 2 of the study provides the opportunity to explore further the implementation of policies in the Local Transport Plans from the perspective of the SDNP. This could involve analysis of expenditure under headings relating to the SDNP, or rural areas generally. Outputs and outcomes from the expenditures could be examined using the local authorities' own monitoring reports. However, this process is likely to be of value primarily to assist in promoting the interests of the SDNP. Outcomes in terms of impacts on visitor numbers or mode split are more difficult to assess, and may require more detailed data than would normally be reported in LTP monitoring reports.

The options development stage also provides the opportunity to consider initiatives and measures that are new to the SDNP, such as car clubs, flexible cycle hire, cycles on buses, single pricing for car parking and public transport use, and train taxis. Ideas can be garnered from consultees as well as from the SDNPA planning team and their consultants.

The data reviewed and discussed in this Phase 1 report relate to physical supply and demand aspects of transport. There are important issues in relation to funding and finance priorities that could be explored in Phase 2 of the transport study. An issue of potential interest would be the dominance in transport finance of support for concessionary travel and school transport services. In Hampshire for example these together account for about a third of all transport expenditure, including maintenance. There may scope for the SDNP to benefit more directly from this expenditure, for example by promoting more take-up of concessionary passes for recreational travel in the SDNP, or by exploring the potential for mainstream public transport improvements to reduce the need for school transport contracts.

Another aspect that arises from transport policies expressed in the Local Transport Plans concerns the relative merit (and related planning and expenditure priorities) accorded to rural as opposed to urban transport measures. All the LTPs covering the SDNP include rural transport measures, but the main focus is on urban transport and supporting urban growth. If pound for pound there is greater potential in urban areas for reducing car travel, separate arguments may be needed to justify sustainable transport measures in rural areas.

Key policy areas have been identified and are discussed in Section 3 this report, in particular:

- Planning “gateways”, “hubs” and other access points;
- The role of rail services in providing access to the SDNP, in particular exploiting spare off-peak capacity;
- Securing improved bus services and other public transport;
- Planning public rights of way;
- Planning “hotspots” and managing visitor impacts;
- Planning to limit the impact of HGV movements within the SDNP;
- Promoting local transport and facilities serving settlements within the SDNP, that can also serve visitors;
- Accessibility planning as a key input to spatial planning policy

There are two general requirements in the development of policies. Firstly, policies will need to be tailored to meet the characteristics of different areas of the SDNP. Secondly, there is the need to ensure that marketing initiatives relate to access opportunities and facilities that are or will be fully in place when the initiative is launched.

6.3. Additional policy areas for consideration

There is a range of other policy topics that has been identified in this study. Some of the policy topics below are already being addressed, either through the LSTF programme, or Local Transport Plans, or other mechanisms, but they also need to be considered for inclusion in the Management Plan and/or Local Plan of the SDNPA.

The list is organised broadly according to the three duties of the SDNPA to protect and promote the National Park, and to foster the social and economic well-being of communities within the National Park, and also in order of importance according to the judgment of the authors of this report.

Policy topics relating to protection of the National Park

- Impact of increasing visitors on transport and rights of way networks (West Sussex LTP3). The need to identify and audit traffic and visitor impacts on towns, villages and rights of way in terms of quality and capacity;
- Promoting mode shift away from the car, amongst residents and visitors as a means of reducing traffic impacts within the SDNP;
- Developing a rural route hierarchy (based on environmental capacity/sensitivity) as the basis for planning, design and management, including speed management, of the highway network. HGV routing and restrictions would also benefit from the existence of a route hierarchy designed with this in mind;
- Developing a car park strategy in conjunction with the route hierarchy, plus associated issues of ownership, management, charges and controls, safety and security (this is also linked to promotion of SDNP access); and
- Air and noise pollution on busy and congested routes e.g. south coast east-west routes;

- Choice of materials, signs and other road infrastructure to protect and enhance rural character, heritage; (see West Sussex LTP3);
- Road traffic has been stable or declining since 2004, including on the main roads in the SDNP, with implications for road planning policy. For example, it would be difficult to justify building increased road capacity on the basis of traditional forecast traffic increases. On the other hand, the decline in traffic in the SDNP may need to be considered in relation to Purpose 2;
- Deliveries and internet shopping – potential for collection hubs and or passenger carrying transport (similar to the post-bus concept) as a means of reducing travel (this is also relevant to enhancing local communities).

Policy topics relating to the promotion of the National Park

- Collating information from various agencies, and making this available for the development of promotional material, both in house and by third parties. The multiplicity of published walks is an example where there should be potential for centralised promotion;
- Developing public-facing information in a range of formats to reach as wide an audience as possible;
- Access to the SDNP for those without access to cars; and
- Working with promoters of attractions and events (e.g. stately homes, Goodwood horse racing and car circuit events, cycling events, etc.) to develop sustainable transport strategies.

Policy topics relating to the social and economic well-being of communities

- Demographic factors as an issue in policy-making (age, gender, income, disability etc.), which are also relevant to visitor promotion;
- Promoting more sustainable transport choices amongst residents and businesses within and near to the SDNP;
- New development to promote “local living” (West Sussex LTP3) and access to local services (also relevant to visitor promotion);
- Reliance on cars reflected in high car ownership and use, and absence of alternatives, but there is a significant population without access to cars, particularly in the urban settlements within and just outside the SDNP boundary that form an important part of the visitor catchment area; and
- Promoting rural broadband service so as to promote communication and reduce the need to travel for residents and local businesses.

Appendix A - Summary of recommendations for follow on work

In addressing the issue of what new data would be useful in relation to SDNPA and local authority policies we have assessed them both on the basis of building a long term evidence base, and in terms of what needs to done quickly and affordably. As with Phase 1, the value of the transport data depends on how much it can contribute to the achievement of the SDNPA overall objectives and policies for sustainable transport.

There is also the issue of taking the opportunity to measure the impact of new initiatives, for example marketing of a key attraction to potential users. Research into how effective they are will inform future actions but also can contribute to a wider understanding of transport issues.

We consider that the analysis of existing and newly collected data will need to be undertaken with a focus on the implications of the results for policies and programmes, suggesting the most cost effective way of achieving greater use of sustainable modes in the context of increasing use of the National Park. We allow a small amount of time for this, and at least one wider discussion meeting with the Authority, in our proposed work plan.

We have divided the proposals into three main categories:

1. Core data – essential for a range of policies in land use and transport and will provide “quick wins”
2. Targeted new data – has a clear purpose in relation to one or more policies but can be phased over time
3. Supplementary data – provides a richer context but not as high a priority and to be pursued as supplementary, for example through bids for research funding.

Many of these will require, or be easier to implement through, co-operative working with the local transport authorities and other agencies (for example the National Trust). For this reason, we recommend that Phase 2 should engage with other interested parties, to discuss the policy value of the data as well as how it can be collected.

At any one time there are surveys being undertaken which provide opportunities for low cost actions such as an additional question, modified question or tick box which could help the Authority. One example already in hand is the request to local authorities to think about recreational travel in the surveys which they undertake. Currently these are focussed on weekdays and often on peak hour traffic, as are those for rail and bus operators. The SDNPA should set out information which is useful for its functions in relation to recreational travel, which could then be included in any data collection, for example for local or countywide traffic models.

Thus there are data which may be available already, or could be collected at low cost as part of a larger survey. Creating the Phase 2 programme, and identifying what can be achieved quickly, can be used as a source document to circulate to all interested parties who collect data. Working collaboratively

will also help to extend best practice and achieve consistency, and the SDNPA can act as a catalyst in this regard.

Core data

Data which are to hand or are accessible quickly but need further analysis

1 The hubs and gateways are being classified and mapped as part of the LSTF work, and this will provide data on facilities including cycle parking and wheelchair access and where improvements are needed.
2 The visitor attractions which are close to the hubs and gateways also need to be related to accessibility by different modes, in particular those which have all or part of their travel by sustainable modes. Accessibility mapping for off peak bus and rail services should be a priority, both for identifying gaps and opportunities for leisure travel, and for helping to assess development proposals. Since they use their own Accession software, it is assumed that the baseline accessibility mapping will be undertaken by the LTAs (see Phase 1).
3 The mapping should lead to the identification of weaknesses in the provision of sustainable travel modes, again this should identify the most obvious opportunities for improvement.
4 Car parks need to be mapped in relation to attractions, and as potential access points, and assessed for capacity and popularity. There are some data already and gaps could begin to be filled in as part of existing field work in the SDNP. This could be based on the four management areas. Other sources of data are established attractions and Network Rail.
5 For those living in the Park, and close by, the 2011 Census data, on car availability and on journey to work mode split, are available and need to be mapped to accompany 1 and 2. This will help identify where public transport is needed most. Comparison should be made with 2001 data.
6 Data on traffic congestion should be used to identify any road network issues, including the use of existing sources such as Trafficmaster, or real time surveys on any problem days which are identified. This needs further development following discussions with DfT, LTAs and Trafficmaster.
7 Data on local rail journeys by time of day and season are held by operators and could be made accessible if the tabulations are closely specified. This could be done and submitted to relevant operators very quickly. This will help in assessing the potential for off peak recreational travel by rail.
8 Data are to hand from some but not all bus operators and in particular one of the largest. A final attempt could be made to extract the missing data. This could be pursued as part of the ongoing work with operators and LTAs, and a decision on whether any further data collection is required taken at a later stage.

9 There are still some data from the 2011 Visitor Survey which need to be analysed and understood in terms of transport policies and this would be supplied from the survey contractor.
10 There are promoters of attractions and events (e.g. stately homes, Goodwood horse racing and car circuit events, cycling events, etc.) who could provide existing data and monitor the impact of any sustainable transport initiatives. This is to be pursued as part of the LSTF programme and evaluation.

Targeted new data

1 Household data on all journey purposes and mode split, compatible with the National Travel Survey, but collected through other means[1]. The two recommended methods are
   a. an on-line survey but with invited participants to create a representative sample
   b. a postal survey
   both would require a prize draw or other similar incentive.
2 Household data on reasons behind mode choice, and what is needed to change them, either as part of the above or separately.
3 Consideration should be given to this replacing the existing NHTS which is related to LTP indicators. LTP monitoring is no longer required and the above would provide more useful data.
4 On-bus survey data can be collected relatively simply if, as is likely, there are operators who do not supply data. Additions to survey programmes of the LTAs can be specified (e.g. East Sussex in 2013). However, this may not be as useful as household data because use on key recreational days (Saturday and Sunday) is so low.
5 Rights of Way issues were identified in Phase 1 and need to be explored further. It would be useful to gain better insight into the use of recreational cycleways and footpaths. For Phase 2 this requires work to develop a brief for a study of recreational walking and cycling, perhaps taking a key part of the network such as the South Downs Way.

Supplementary data

1 Data on freight movements is hard to achieve and is an area for development, GPS tracking is undertaken, but may not be available for commercial and security reasons. Engaging with operators (many of whom will be outside the Park) should be considered as the first stage in collecting data.
2 Ways of assessing the sensitivity of settlements to road traffic should be examined within the SDNP as part of "hot spot" analysis. This could be linked to the recently-commissioned work on public realm in villages.

[1] Drawing on the LTS Toolkit and review of the potential use of new technology in the NTS.

3 In terms of policy development by the Authority, consideration should be given to producing a road casualty map and analysis for the SDNP.
4 It would be useful to gain better insight into the use of recreational cycleways and footpaths. One way forward would be to work on a brief for a study of recreational walking and cycling, perhaps taking a key part of the network such as the South Downs Way and the other branded paths. Partners could be sought for this project.
5 The impact of increasing visitors on transport and rights of way networks (West Sussex LTP3) needs to identified and mapped.
6 Extent, speed and reliability of broadband services – related to the evolution of policies to reduce traffic through “Smarter Choices”. Joint work with other Government/consumer bodies.

APPENDIX B

Transport Issues and Policies identified in published documents, as at December 2012

Introduction

Local Transport Plans for the constituent LTAs have been reviewed for policy content that relates directly to the SDNP, or to issues that particularly affect the SDNP. Some other documents with relevant transport policy content are also included:

- East Sussex Local Transport Plan 2011-2016
- West Sussex Transport Plan 2011-2026
- Hampshire Local Transport Plan 2011-2031
- Brighton & Hove Local Transport Plan 2011-2026
- Hampshire South Downs access plan 2008-2013 (RoWIP)
- West Sussex Rights of Way Improvement Plan (RoWIP) (undated)
- East Sussex Rights of way Improvement Plan (RoWIP) 2007-2017
- English National Park Authorities Association, “Position Statement – Transport”, July 2007
- Joint LSTF bid for New Forest and South Downs National Parks, 2011

East Sussex Local Transport Plan 2011-2016

The plan strategy promotes sustainable access to the SDNP. It prioritises improvements on key walk, cycle and public transport routes, which include those giving access to the SDNP.

“Gateways” to the SDNP are identified as Lewes, Newhaven and Eastbourne. The role of villages as gateways and their position to benefit from SDNP tourism is also mentioned.

Newhaven sits on the boundary of the SDNP and therefore will be a key transport gateway into the SDNP, especially for visitors arriving via the Port. (para 4.24 Newhaven)

P25 box
Newhaven
Developing and implementing a cycle strategy and route network, focused on key routes providing links from residential areas to the town centre, train station and port, as well as to routes to Seaford, Peacehaven, Lewes and the SDNP, to complement the existing NCN2 plus facilities such as cycle parking in the town centre

Visitors often wish to walk, cycle and ride using our rights of way network. However this can cause traffic congestion and parking pressures in some locations and puts increasing pressure on the quality and character of coastal towns, market towns, villages and the countryside. (para 4.30, rural areas)

The key transport issues include the need to:

- manage and improve visitor access to the SDNP while reducing the impact of traffic;
- maintain and improve accessibility for the rural communities in the SDNP;
- minimise the impact of any transport infrastructure on the landscape and environment;
- support the role of rural bus services for both visitor and community access; and
- support the role of rail in sustainable access to the SDNP.

(para 4.33 key characteristics and challenges)

Para 4.33 Lewes
Lewes – is the county town and administrative centre for the County Council and Sussex Police. The key challenges are reducing congestion and pollution from traffic, tackling safety issues, providing more sustainable travel options, and protecting and enhancing the character of the town to develop it as a key visitor and retail centre and a gateway for sustainable access to the SDNP.

(p29 box - edited)

Approach LEWES, SOUTH COAST TOWNS AND SOUTH DOWNS
Priorities:

- Work with Lewes District Council and the SDNPA to enhance the status of Lewes as a gateway town for sustainable access by walking, cycling, public transport, community transport and rail into the South Downs National Park, maintain accessibility for rural communities in the National Park;
- Work with Lewes District Council to test development options and identify transport measures to support sustainable development coming forward through the Local Development Framework including the potential development of land at North Street;
- Focus on improvements for safe, coherent walking and cycling routes on key corridors from Brighton and Hove to and within both Lewes and the south coast towns;
- Focus on improvements to public transport on key routes and corridors from Brighton and Hove to both Lewes and the south coast towns including potential for better interchange facilities;
- Focus on transport measures to tackle congestion and address the air quality issues in Lewes town centre; and
- Work with key partners including public transport providers, Job Centres and GP consortia to improve accessibility to key facilities in the area.

P42 box
ensure that the footpaths, bridleways and byways around the county and in the South Downs National Park (SDNP) are safe and accessible for public use

The Local Implementation Plan also includes a reference to "Improvements to walking and cycling access to rail stations with particular consideration for those giving access to the South Downs National Park and the High Weald AONB."

West Sussex Transport Plan 2011-2026

Part 1 long term strategy

1.1.6 Younger people have fewer transport options and often rely on public transport to access education and employment, and to take part in social activities. The specific needs of younger people include:

- Affordable travel on both buses and trains;
- Public transport integration between different modes of transport;
- Bus services during the day but also into the evening and at weekends;
- Bus stops which are close by and easy to reach;
- A safe public transport network including measures such as good street lighting and CCTV on public transport to reduce fear of crime; and
- Safe cycling and pedestrian infrastructure, which is free from potholes and other hazards.

1.2.1 (P8) work closely with the South Downs National Park Authority to manage the impact on the transport network of visitors to the area

Note: Concern about (presumably negative) impacts that increased visitors can have on the transport network. i.e from the perspective of WSCC rather than SDNP.

1.2.3 Accessibility Strategy

- Continue to identify problem areas by using survey approaches and accessibility mapping techniques where appropriate;
- Work in partnership with service providers and stakeholders to set priorities;
- Ensure that accessibility is a central consideration when planning local services;
- Seek to ensure that places of work, education, leisure and food retail opportunities are located close together in new development;
- Enable disadvantaged people to access employment opportunities, key services, social networks and goods; and
- Encourage local delivery of services so that people have to travel less.

1.3.3 Rural strategy
Policy: Developing opportunities to improve access to, and within the National Park particularly for walking and cycling.

The availability of public sector funds is a key consideration for Rural West Sussex as this is likely to put pressure on funding which supports bus services in rural areas. Changes to the way that bus services are subsidised through operator grants are also likely to have a negative effect on rural bus

services during the lifetime of the Plan. The creation of the SDNP is expected to bring significant change to Rural West Sussex during the lifetime of the Plan resulting from additional visitors to the area.

1.4.7 Community Transport in West Sussex plays an important role in enabling social inclusion by providing access to services which improves quality of life for users. It is an important part of the transport system because it provides a level of service which cannot be provided by commercial bus operators. Community transport providers can provide a service for some people who are unable to access conventional public bus services. Whilst community transport is important, it is not an alternative to public bus provision for everyone because operating hours and routes are often limited.

Part 2 Implementation Plan

Generic issues (more than one District):

- The current public right of way network linking the South Downs with the coastal plain is disjointed, deficient in terms of bridleway access and requires surface enhancements in many places; and
- Due to the low use of some bus services there is uncertainty over the future viability of some services.

2.1 Adur
Road congestion during peak periods affects many parts of the highway network throughout the District, and causes poor air quality and noise problems. Roads particularly affected include the A27, A259 and the A270 (the east-west coastal routes).

All new development should be designed to promote ‘local living’, for example shops, jobs and homes all being within easy reach of each other.

2.3 Chichester
The market towns of Petworth and Midhurst, the main hubs in the north of the District, are linked by the A272. Both towns fall within the newly established SDNP, with the SDNPA headquarters being located in Midhurst. There is a reasonably good bus service operating. However, high costs and the low frequency of some services mean that travelling by car is often an easier alternative, especially for those who live in more isolated locations such as West Lavington.

In order to avoid congestion and maintain journey times HGVs are diverting onto unsuitable residential and rural roads, causing safety concerns.

2.6 Mid Sussex
Hassocks is one of the ‘gateways’ to the SDNP, offering an excellent opportunity to explore the Downs car free, due to its location on the Brighton Main Line.
2.6.2 The current public rights of way network is disjointed, deficient in terms of multi-use routes and needs resurfacing in many places. The creation of the SDNP is expected to increase pressure on the network over time.

Sustainability Appraisal Table
Mitigation includes sensitive choice of infrastructure materials, signing and other ancillary infrastructure in countryside or historic villages/towns, and partnership working with SDNPA. EIA and assessment of archaeological impact will be required in some cases. Potential visual and noise impacts should be mitigated through careful design.

Hampshire Local Transport Plan 2011-2031

The LTP does not envisage conventional bus services as having a substantial role in rural accessibility, as shown in the following two extracts.

P15 Public transport has a role to play in providing a safe, environmentally efficient alternative on our busiest corridors and providing a lifeline for accessibility for isolated communities.
Investment in public transport will be focused where it can have the greatest impact. In particular, the County Council will work with bus operators, generally through the Quality Bus Partnership40 approach, to maintain growth in bus use and reduce dependence on the car for journeys on inter- and intra-urban corridors.

Policy Objective 5: Maintain a 'safety net' of basic accessibility to services and support for independent living in rural areas, with Community Transport services as the primary alternative to the private car, including car-based provision such as Neighbourcare schemes, car clubs and shared taxis.

The South Downs area of Hampshire is included in the county's "central and New Forest" area:

P55 "Challenges" include:

Managing and mitigating the impacts of increasing traffic, including HGV movements on core routes and in more rural areas.

Managing transport and infrastructure impacts within the two National Parks (New Forest and South Downs).

Identify and encourage Community Transport services to serve isolated areas

For the mainly rural northern part of Hants, the following are identified:

- Support for Community Transport services;
- Support for grass-roots community travel planning initiatives;
- Improved speed management and safety measures on rural roads;
- Measures to reduce adverse impacts of HGVs on rural communities;
- Encourage walking and cycling between villages and larger towns; and
- Work with Parish and Town Councils to support community-driven transport solutions.

p57 Measures envisaged for future implementation include

- Managing the road network to protect and enhance the area's rural character;
- Reduction of 'sign clutter'; and

- Supporting local sustainable through footpath, cycle, equestrian, public transport and rights of way improvements, and enhancing the network to allow increased leisure use.

P58

- Providing a well-maintained, resilient highway network;
- Further speed limit changes across Hampshire during the life of this strategy prioritised according to their impact on reducing casualties;
- Supporting isolated communities with public and community transport as far as practical; and
- Providing accessibility to services through community transport, neighbourcare car schemes, high speed broadband and mobile banks or libraries.

p59

- Traffic management measures to address problems of rat-running;
- Signing measures to discourage HGV use of unsuitable roads;
- Development of a freight routing journey planner to help encourage operators to purchase SatNav systems designed for lorries;
- Removal of unnecessary signing Work with Parish Councils to support community-driven transport solutions.

Part B (Implementation) of the Hants LTP

Does not include measures specific to the SDNP, but does include a number of expenditure headings that could benefit the SDNP. Examples are small scale accessibility improvements such as junction improvements and pedestrian crossing facilities.

The focus of investment on urban areas, and especially those areas designated for growth, does, however, raise the issue of expenditure priorities and on what basis money can be justified for rural access improvements.

Another interesting aspect is the dominance within the public transport revenue budget of home to school transport. In the case of Hampshire, the annual sum of over £26 million amounts to just over half of the total of around £50 million. This dwarfs the sum allocated for the support of local bus services (around 10% of the total), as shown in the table 8.4 reproduced below.

Table 8.4 – Public Transport Revenue Expenditure 2012/13 – 2014/15

Area of expenditure	2012-13 £m	2013-14 £m	2014-15 £m
Support local bus and ferry services	5,450	5,450	5,450
Community transport services	1,600	1,600	1,600
Public transport information and infrastructure	600	600	600
Concessionary Fares	13,600	13,600	13,600
Home to School Transport	26,800	26,500	26,300
Social Care transport	1,900	1,900	1,900

Overall, in terms of expenditure under what could be termed “sustainable transport” or “Smarter Choices”, the dominant items are concessionary bus travel and school transport. Other expenditure on smarter choices, both capital and revenue expenditure, appears to be small by comparison. In fact between them, concessionary travel and school travel support account for one third of all transport expenditure in Hampshire, including maintenance, for the three years 2012-2015 (£120.4m out of £362.3m).

Brighton & Hove Local Transport Plan 2011-2026

7.5.1. Reducing traffic congestion, and managing and reducing associated pollution and emissions are key aims. Ways to achieve this include:
Provide walking and cycling connections between the city centre, urban fringe parks and the South Downs National Park will help to encourage physical activity, alongside the promotion of active travel through employers and NHS partners, GP surgeries.

Improvement of access to National Cycle Network
p91 NCN20 (A23 London Road): The main objective has been to improve access to the route for residents in the local area, in addition to local schools (Patcham Infants, Patcham High and Westdene). Improvements also increased safety and journey times for cyclists and pedestrians, whilst retaining a wide two-way carriageway, therefore avoiding creating any additional delay to vehicles as a result. North and southbound cycle lanes were implemented between Carden Avenue and the A27 junction, with two new signalised pedestrian crossings on the A23 - one south of Brangwyn Drive and the other south of the junction with Old London Road.
Since its implementation, the route has become a valuable new link to the South Downs National Park, improving accessibility to that open space for recreational purposes.

P95-6
8.3.7. Many people visit (the South Downs) area from the nearby coastal towns and cities such as Brighton & Hove, Chichester and Eastbourne. London is less than 1 hour away. Maintaining and providing additional sustainable transport to and through the SDNP is expected to be a high priority. These include the popular ‘Breeze up to the Downs’ bus services linking the city with three of its most popular countryside destinations, - Devil’s Dyke, Stanmer Park and Ditchling Beacon – which are in the National Park. They are provided through a partnership between the city council, Brighton & Hove Bus and Coach Company, the National Trust and the South Downs Joint Committee. There are also 18 easy-to-follow South Downs Bus Walks which are easily accessible from the city’s frequent main bus network.

Part B Implementation Plan

2.2.8. The provision of accurate, accessible and clear information can take many forms and will assist in people making door-to-door journeys, which can involve the use of a number of different forms of transport. This can include initiatives such as cycling and walking maps, pedestrian wayfinding signs, real time public transport information, car park Variable Message Signs (VMS) and raising awareness through workplace, school and personalised travel planning.

Appendix B continued - Other documents

Hampshire South Downs access plan 2008-2013 (RoWIP)

Vision includes:
Provide links directly into the area from adjacent settlements to encourage car-free recreation

Issues identified

1. There is a high reliance on cars and availability of car parking to get into the South Downs area (page 8);
2. The quality of path surfaces is mainly good in the area overall, but surface conditions are poor in localised areas (page 10);
3. There is a limited supply of easily accessible, inviting routes in the area (page 12);
4. There is a lack of awareness and understanding of each other's needs among those who use and manage the countryside access network (page 14);
5. Countryside access users are forced to use or cross busy roads to link up off-road access (page 16);
6. There is a need for more circular routes for all users (page 18);
7. Public access can create difficulties for land managers and landowners (page 20);
8. There is a lack of affordable and appropriate visitor accommodation in the South Downs (page 22); and
9. Many users would like to see more detailed information about the routes they are following (page 24).

Selected policies (i.e those related to physical rather than process measures):

SD1.1 Improve signage and promote existing walking and cycling routes out of urban areas, e.g. Winchester and Petersfield.

SD1.2 Develop and promote new walking and cycling routes from major towns and railway stations.

SD 1.3 Develop and promote carfree/public transport-linked visits to the South Downs (Hants) area.

SD 1.4 Pilot schemes to reduce congestion by making more effective use of existing car parking facilities in villages such as village halls, schools, pubs and other businesses.

SD 3.1 measures for disabled people

Consult with local disabled access groups and community groups in and around the South Downs (Hants) to establish what, if anything, is preventing them from enjoying the countryside in the area.
SD 3.5 Identify, develop and promote a range of ‘high quality’4, accessible routes for all users.

SD 5.1 Identify and prioritise the management of existing and creation of new routes that avoid roads.

SD 5.2 Identify verges that could be managed to provide safer links in the access network and agree standard of maintenance required.

SD 5.3 Seek creation of off-road routes for non-motorised users within new development

SD 5.5 Identify and consult on traffic management schemes to reduce traffic density and speed on minor roads.

SD 5.7 Identify key crossing points and prioritise for improvement (e.g. traffic management, better sight lines, refuges, controlled crossings, etc).

SD 6.2 Establish the principle for links to be provided on publicly owned land and highway verges, where required.

SD 6.3 Identify and prioritise development of routes accessible from towns and villages or from railway stations that connect with the countryside.

SD 6.4 Develop and promote a range of ‘quality’ circular routes for all users, including where possible views, a ‘destination’, woods, waterways etc, including routes from the South Downs Way.

SD 7.3 Ensure that paths are well signed and waymarked to minimize ‘unconscious’ trespass.

SD 9.5 Agree a standard for signage across whole of the proposed South Downs National Park area, including rationalisation of signs to reduce the amount of clutter in the countryside.

West Sussex Rights of Way Improvement Plan (RoWIP) (undated)

Vision
"A county where there are maximum opportunities for people to enjoy the countryside on foot, by horse and by bicycle for health, recreation and to access services, while recognising the need to balance this with the interests of those who live and work in the countryside and the management of special landscapes."

The South Downs AONB area is one of four RoW management areas in West Sussex.

The Plan identifies 10 issues:

A – Maintenance of the existing network;
C – Difficulty in getting to the countryside;
D – Safety using the countryside including using and crossing busy roads to link off-road access;
E – Crime and misuse of the countryside;
F – More off-road multi-use routes are needed to link centres of population with the countryside and to facilities and amenities;
G – There are missing links;
H –The off-road access opportunities for horse riders, carriage drivers and cyclists is limited or fragmented, particularly outside the South Downs;
I – The erosion of coastal/riverside paths;
J – Conflict arising from use of the rights of way access network; and
K – New development and road schemes.

The plan includes a table of measures to be taken, many of which are protocols for ongoing actions and considerations, and some of which are specific actions or schemes. The partners involved and an approximation of resources required are given, but no timescale.

The South Downs National Park elements will need to be reviewed and taken forward as part of the development plan and management plan process.

East Sussex Rights of way Improvement Plan (RoWIP) 2007-2017

Vision
"A county where people of all abilities, backgrounds and ethnic groups have greater access opportunities to a wide range of well maintained and well connected public rights of way and areas of open access."

The Plan does not differentiate the South Downs National Park but covers the whole County by landscape types.

The plan refers to the need to evaluate the RoW network and to lists help of improvements needed. The lists cover the following issues, which are useful in the development of the SDNP management plan:

- Bridleway and byway road crossings;
- Roadside verges connecting bridleways and byways;
- Gaps in the bridleway and byway network;
- Paths which could be upgraded;
- Important footpath road crossings;
- Areas lacking a rights of way network;
- Dead end paths;
- Gaps in the Footpath network;
- Bridleways and byways potentially useful to cyclists;
- Cross border dead end paths and changes of status;
- Duplicated Paths.

The Plan has seven stated aims, and a set of objectives for each. The first two are "process" related while the others are more substantive:

1. Improve resourcing
   - To take advantage of any suitable grant funding for public rights of way related projects;
   - Seek to secure benefits to the public rights of way network from major developments and road schemes; and
   - Seek to secure benefits to areas of open access.

2. Improve partnership working
   - Encourage volunteers to help with work on public rights of way, including improvement work as well as basic maintenance;
   - Improve working with land managers; and
   - Improve working with town and parish councils, other authorities and organisations.

3. Improve safety and convenience
   - Make crossings of busy roads safer;
   - Make roadside verges safer for horse riders and other users;
   - Close obvious gaps in the rights of way network;
   - Seek adjustment of the existing rights of way network to improve safety and opportunities for users;

- Seek the addition of new paths to the public rights of way network to improve opportunities for users; and
- Limit the use of legal orders to control the public use of byways.

4. Improve access for all
   - Take the needs of disabled people into account when carrying out work on public rights of way;
   - Improve and promote a series of routes designed with disabled people in mind;
   - Recognise that some users of motor vehicles on byways open to all traffic (BOATs) are disabled and this may be their main method of accessing the countryside; and
   - Improve the surface of specified bridleways and byways to facilitate use by cyclists and people in wheelchairs.

5. Improve information
   - Improve and make more accessible the information held on the Definitive Map of public rights of way;
   - Provide a wide range of accessible information on opportunities to enjoy the rights of way network; and
   - Improve the information 'on the ground' on rights of way.

6. Improve access to the countryside from urban areas
   - Develop a series of short, circular walks from urban areas that are attractive and easy to use, especially aimed at those who do not necessarily access their local countryside on a regular basis;
   - Improve access and facilities on popular dog-walking routes; and
   - Provide more 'open' access to the countryside around towns and villages.

7. Improve promoted routes
   - Promote a strategic network of primary Long Distance Paths (LDPs) which are maintained and promoted to a high standard;
   - Record and maintain secondary LDPs (such as the Vanguard Way and Sussex Border Path) to a reasonable and consistent standard;
   - Promote a variety of circular routes which are maintained to a high standard;
   - Record and maintain circular routes promoted by non-County Council sources (for example other local authorities, organisations, walking groups or independent guide books) to a reasonable and consistent standard;
   - Seek the provision of facilities to complement the LDPs and circular routes; and
   - Improve opportunities for promoted off-road rides for equestrians and cyclists.

English National Park Authorities Association, "Position Statement – Transport", July 2007

Transport issues such as vehicle emissions, disturbance or damage caused by numbers of vehicles exceeding the capacity of specific locations, parking issues, charging for access or parking, lack of access by public transport in many areas;

ENPAA promotes sustainable tourism including transport. There is funding support from the Rural Development Fund for England for the "Our Land" initiative until August 2013 (http://www.our-land.co.uk/) which is jointly for the South Downs and New Forest National Parks. A commercial sustainable tourism website is expected to continue this effort (responsibletravel.com).

Joint LSTF bid for New Forest and South Downs National Parks, 2011

"Sustainable Transport Solutions for England's two newest National Parks"

Provides a headline objective:

"Develop and promote sustainable access to and within the two national parks in ways that protect and enhance the Parks' natural beauty, cultural heritage and wildlife, provide opportunities for understanding and enjoyment and, wherever possible, support social and economic well-being for all."

A key issue is that of supporting economic growth by expanding tourism whilst reducing the proportion of visitors arriving by car and increasing the proportion of visitors arriving by sustainable modes. A related issue is reducing carbon emissions, and specific targets are included.

A sub issue is how to increase the number of staying visitors, as opposed to day visitors.

The main transport challenge is therefore to ensure that sustainable access provision to the SDNP is in place, both for the existing population and for additional demand arising from the growth areas.

Congestion hotspots are identified as presenting significant local issues. *"The seasonal nature of many visitor trips means that the summer months and certain school holiday periods see a peak of visitor arrivals in the Parks, whilst there are also peaks at weekends. With the majority of trips being undertaken by car, this creates congestion hotspots in a number of towns and villages: Visitor traffic congestion builds up in settlements throughout and near to the South Downs Park (including in Arundel, Ditchling, Midhurst, Storrington, Alfriston and Lewes). In certain locations, including at Storrington, Hassocks and Lewes, Air Quality Management Areas (AQMAs) have been designated due to high levels of nitrogen oxides caused by high traffic levels, some of which is visitor related."*

It is acknowledged that *"public transport provision is not well orientated towards visitor access. There is limited branding of existing bus services and rail station gateways, limited information targeted at visitors, and limited integration with visitor attractions across the park."*

The need to reduce carbon emissions from transport is identified as an issue, although this is closely related to that of securing more sustainable transport choices. The key issue will be how to reduce emissions whilst increasing visitor access.

To address these issues, the following objectives have been identified:

- Improve key public transport gateways into the SDNP;
- Make it easy to reach key attractions;
- Promote sustainable travel packages to visitors before they arrive and while they are in the SDNP; and
- Manage all traffic effectively within the SDNP, so that it does not detract from visitors' experience.

Further details of measures that will be taken are set out under each of these headings.

The Bid document details the implementation structure and also identifies funding for specific elements of the programme. The Measures identified for funding include many that are referred to in this Phase 1 report.