17. Science Vale UK

17.1 This chapter sets out the strategic strategy for the Science Vale UK area where the cumulative impact of the planned growth across the area is addressed and strategic schemes identified. It also sets out the local strategy for Didcot and Wantage & Grove.

Science Vale UK Area

17.2 The Science Vale UK area encompasses the towns of Didcot, Wantage and Grove, and the employment centres of Harwell Science and Innovation Campus (SIC), Milton Park and Culham Science Centre (CSC); which are within both South Oxfordshire District Council (SODC) and the Vale of White Horse District Council (Vale) areas. Science Vale UK is the national science and innovation centre for the UK and includes a world class concentration of cutting edge research that is unrivalled anywhere in the UK. Alongside this are science and business parks with a wide range of businesses successful in commercialising new technology across a wide range of sectors.

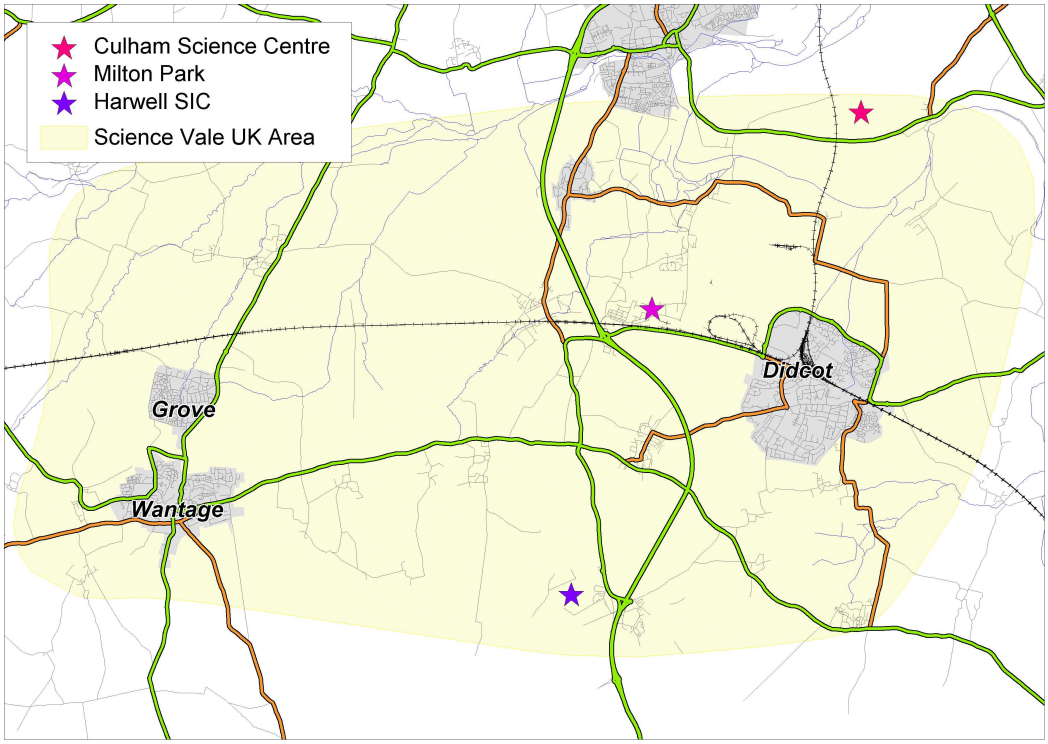

Figure 1 – Science Vale UK area

17.3 Science Vale UK accounts for about 4% of Research and Development employment in England and 13% in the South East area. It contributes a greater share of the UK's total GVA (Gross Value Added) than it has a share of the UK's working age population. Science Vale UK has

been identified as a focus for investment and growth, with a proposed £1 billion of investment at Harwell SIC alone. Public and private bodies are working together to pursue an agreed vision that the area should be a global hot spot for enterprise and innovation in science, hi-tech and the application of knowledge.

17.4 Economic development is a key objective, but the importance of other factors is recognised. Interests extend across a wide range of issues, from housing to skills development. The importance of the area to the national economy and in delivering housing and other growth needs to be supported by significant infrastructure investment.

17.5 In July 2007, Oxfordshire County Council commissioned Halcrow to provide the transport evidence base to support the proposals for Wantage & Grove and Didcot in the District Councils' Local Development Frameworks (LDF's), and subsequent plans and site allocation documents.

17.6 The potential for the established research and business parks to expand further needs to be planned for, through Science Vale UK, principally at Harwell Science and Innovation Campus (SIC) and Milton Park. The aim of the emerging transport study was to promote stronger transport links between the housing and employment locations to encourage higher levels of containment of trips. This was recognised from the start as vital if development in the area is to be accommodated sustainably.

17.7 Didcot is a large town located in SODC and is 17 miles south of Oxford, 8 miles southeast of Abingdon and 19 miles northwest of Reading. The town is to the east of the A34 and is dissected by the Great Western mainline railway between London, Bristol and South Wales. The rail station is of key importance with frequent links to Oxford, London, the West Country and South Wales as well as connections to further afield. The town centre has been re-developed with the new Orchard Centre shopping centre and the Cornerstone Arts Centre. Other local amenities and services include a civic hall, library, community hospital, police and fire station; one free standing nursery school, six primary schools (2 of which are joint nursery schools) and two single sexed secondary schools. Housing development has been rapid since the 1980's and the town will continue to increase in size with the committed and proposed housing developments.

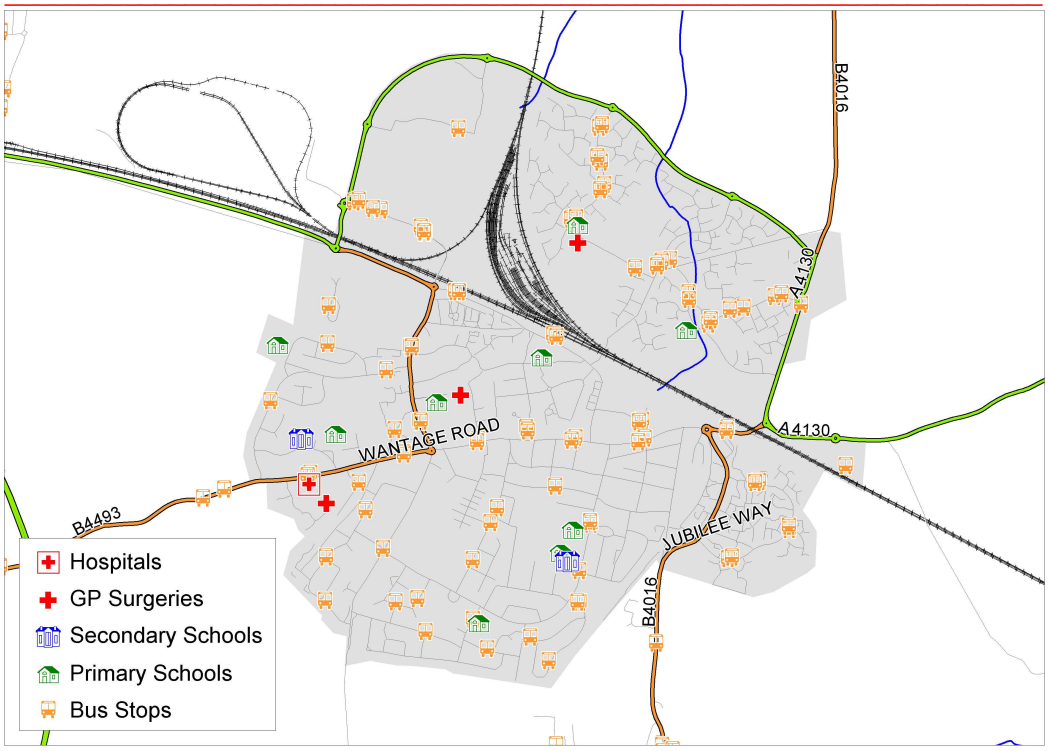

Figure 2 – Didcot Town Plan

17.8 Wantage, an historic market town, is the second largest settlement in the Vale district (in 2001 the population was recorded at 9,767) with a shopping and service centre for the central part of the Vale. It is located 18 miles southwest of Oxford, 9 miles west of Didcot and 18 miles east of Swindon. Its attractive market place and downland setting are essential components of its character. There are four primary, one secondary and one special school, a community hospital, a residential home, library, Wantage Civic Centre, leisure centre and Vale and Downland Museum.

17.9 Grove is a large village a mile north of Wantage with a population of 7,845 (data from 2001). Within the village there are two primary schools, a library, Millbrook and Groveland's local shopping centres and a village hall. A local health centre located north of Mably Way serves both Grove and Wantage, however there is also a general practitioner located to the north east of Grove. Major housing development was allowed in the 1960's and there has not been the provision of the range and quality of services a settlement of this size would normally expect. There are also more economically active residents in the village than there is employment.

17.10 The key local employment areas for the two communities of Wantage and Grove are at Grove Technology Park, Crown Packaging, Williams Formula 1 and Autotype. A major issue for the future will be how best to meet the employment needs of the growing communities.

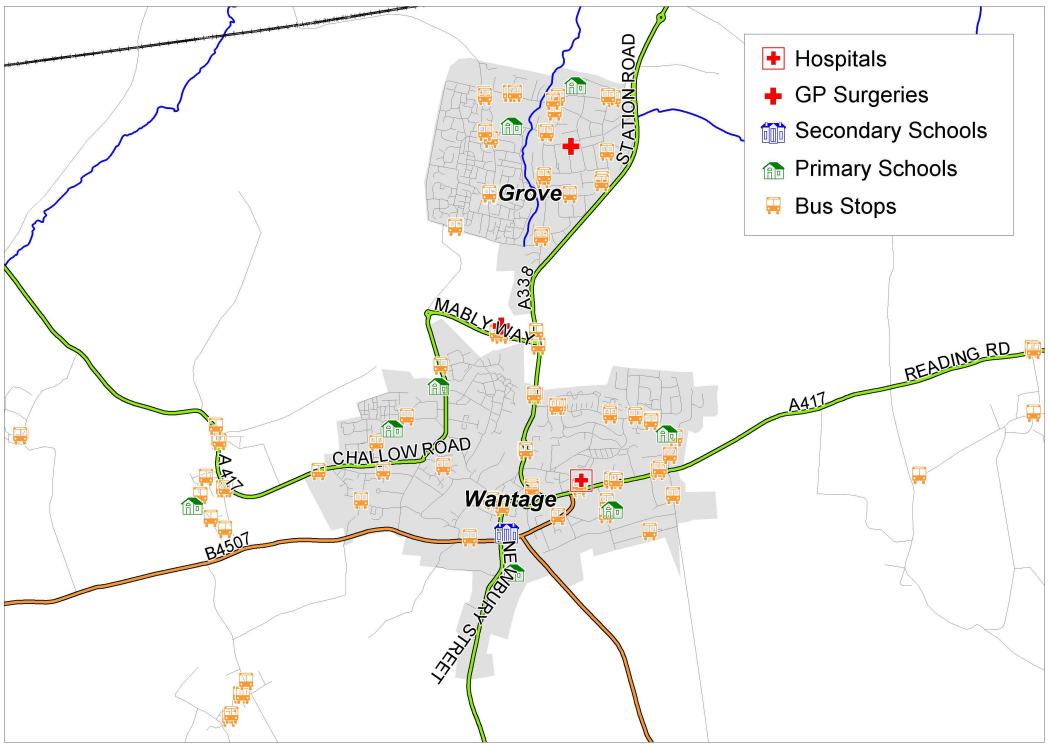

Figure 3 – Wantage and Grove Plan

17.11 A policy in the Vale's Local Plan identifies the important open land between Wantage and Grove which is to be protected from the built environment. The proposed community park and sports facilities lie within the gap and will help secure its protection for the long term. The line of the former Wilts and Berks canal also runs through this area. The challenge will be to help restore it to navigation and provide waterside facilities for informal recreation, walking and cycling.

Transport within Science Vale UK

17.12 The success of Science Vale UK is, in part, down to its advantageous location, good accessibility to all parts of the UK and international links via the south east airports; this is despite the area's predominantly rural surroundings. The strategically important local roads located within the Science Vale UK area are the A338, A4130, A417 and A4185 and they provide vital north – south and east – west links between Didcot and Wantage & Grove and the employment sites. Traffic growth in the area is generally higher than the national average and, as a sign of the areas growing success, some key gateway locations are experiencing congestion. The A34 which runs north-south through the area experiences congestion at peak times.

17.13 There has been limited capacity improvement to the network in recent years and as traffic volumes have grown; when local incidents occur they can rapidly impact on the area as a whole leaving the existing

network 'fragile'. In recent years there has been an increasing tendency for local trips to use minor roads to avoid congestion, to the detriment of the local environment in villages.

17.14 Changes to Milton Interchange were introduced in 2009. This project saw improvements to the A4130 and circulatory carriageway beneath the A34 to provide extra lanes to aid traffic movement into and out of Milton Park. Work on the A4310 has provided a ghosted right turn into site 1 which is due for future development. There are plans to extend the A34 southbound off and northbound on slips at Milton Interchange; the work is due to take place in Spring 2011.

17.15 Strategic 'Premium Route' bus services are already provided on a commercial basis between Wantage, Grove, Abingdon and Oxford; and between Didcot, Abingdon and Oxford. These services do not yet operate at the target four-buses-per hour daytime frequency, and developers will be expected to contribute towards the provision of more frequent services on these corridors.

17.16 Bus services between Didcot, Wantage, Grove and the employment sites are less frequent, yet provide essential links between residential areas and the major employment sites in Science Vale UK. Whilst the current bus service does attempt to meet some work times, the fragmented organisational nature of these sites means that bus services are required to meet a range of start/finish times, including for part-time workers. In practice, a minimum standard of two buses per hour during the morning/evening peak travel periods is required to provide a credible level of service, without excessive waiting before and after the working day. This standard of bus service provision is required from the major urban centres of Didcot, Wantage and Grove, (including from future major residential developments), to the major employment sites.

17.17 Away from providing for these essential work journeys, bus services also convey significant numbers of students to establishments in Didcot and Abingdon, provide the link into and out of the national rail network at Didcot Parkway, and provide a means of conveying people from a large number of dispersed settlements into the centres of Didcot, Abingdon and Wantage. Such bus services need to be provided in a cost-effective manner to reflect the numbers of people travelling between the peak hours, in the evening, and on Sundays.

17.18 Didcot Parkway station, the Orchard Centre and Wantage Market Place are key locations for interchange between bus services and between modes. Whilst Didcot Parkway is currently being reconstructed to a much higher standard, facilities at the other two key locations are rather sub-standard and inadequate.

17.19 National Cycle Route Number 5 and Regional Cycle Route Number 44 both run through Didcot. Regional Route 44 from Didcot to Wantage and the Ridgeway is an 11 mile route on quiet roads, byways and purpose built paths. There are numerous links to The Ridgeway, Berkshire Downs and the major employment sites of Milton Park and Harwell SIC. The surfaces are designed for easy riding throughout and provides a viable alternative for people to travel within the Science Vale UK area.

17.20 Regional Cycle Route 44 is one of the main cycle networks used by the Harwell Bicycle Users Group (HarBUG) who are a group of cyclists that campaign towards making cycling to and around Harwell Science SIC easier and the improvement of the on site facilities for cyclists.

17.21 The principal railway station within the Science Vale UK area is located in Didcot. As previously stated, the railway station is of key importance not only within the Science Vale UK area but within Oxfordshire as a whole as it provides a vital and frequent link to the Thames Valley, London, the West Country and South Wales and connections to destinations in the North. The station also represents the main access point to train services in the south of the county as well as acting as an excellent interchange facility for residents and employees in Science Vale UK. The railway line does however act as a barrier between north Didcot, and the rest of the town, for all modes.

17.22 The world class concentration of research and development, high quality natural and built environment, access to high-level skills and good accessibility has provided the foundation for the existing success of the Science Vale UK area. However these attributes are at risk and not mitigating the challenges which are putting the area's success at risk will undermine its economic vitality and potential.

17.23 Five strategic outcomes have been identified to provide the focus for Science Vale UK:

* Maximise the economic potential of the area by enabling the efficient and reliable movement of people and freight;
* Reduce the Carbon footprint to support targets for carbon reduction;
* Increase the skill levels of people through realising the agglomeration benefits of the high-level research and development (R&D) employment opportunities that will be created to meet the expected increased demand in hi-tech and science industries;
* Increase opportunities for all through improving accessibility to employment, education and services;
* Promote the choice and design of measures that will not degrade the natural and built heritage. The extent to which

transport can have a role in delivering these outcomes has been considered, and it is recognised that non-transport solutions will also have a role to play.

The Area-wide Strategy for Science Vale UK

Problems and Challenges

Environment

17.24 The ability to develop walking and cycling in the Science Vale UK area is constrained due to the lack of connectivity and the proximity of key attractors. The area is predominantly rural with several key urban areas. Hence, walking and cycling as an attractive means of undertaking a whole trip is restricted to the urban areas, namely Didcot, Wantage and Grove and within the villages.

17.25 Outside the main towns, the dispersed population is linked by a network of roads of different standards and classification. Whilst some of these routes are suited to cycling there is not a complete network of 'safe' cycle routes in the area at present. The River Thames and railway lines in the area also impact on route connectivity with crossing points being limited.

17.26 An increasing residential and working population for the area presents further challenges. It is likely to result in a greater number of transport movements in the area. Whether this rise in the residential and working population sees an overall increase in emissions from transport will be dependent on the degree of planning for carbon reduction which is integrated into the schemes.

17.27 There is a need to meet the needs of the current and future generations without compromising the natural and built heritage or significantly changing the intrinsic character of the Science Vale UK area. Carbon management should be promoted to help the transition to a low carbon economy in Science Vale UK.

17.28 Any new development needs to respect and complement the distinctive character of the Science Vale UK area. Land-use patterns and new design should enable journeys to be made by non-motorised modes.

17.29 Green infrastructure needs to improve energy efficiency, manage and reduce the effects of climate change and create more sustainable places.

17.30 Understanding is needed of the full range of cumulative impacts of existing and new transport measures on all aspects of the natural and

built environment; this will allow identification of suitable adapting and tackling measures for climate change.

Housing and Employment

17.31 By 2026, approximately 18,000 dwellings and 12,000 additional jobs are planned for the Science Vale UK area. This represents a significant challenge in terms of delivering planned growth whilst protecting and maximising the existing strengths of the area. There is a need to provide affordable housing to address the short-comings in existing provision.

17.32 The future of the hi-tech economic growth in Science Vale UK is reliant upon being able to source employees with appropriate skills and training to meet the demands of businesses thus increasing the chance of employees travelling from further afield. There is a need to provide access to appropriate training so residents in the area have the opportunity to work in the local area. The skills agenda also needs to help older workers adapt and respond to different business needs and career opportunities.

17.33 Future housing predictions would see:

* 2,500 dwellings – Grove Airfield (Grove)
* 1,500 dwellings – Northeast Wantage (Crabhill - Wantage)
* 239 dwellings – St Mary's School site (Wantage)
* 841 dwellings – Other windfall sites (Wantage)
* 3,342 dwellings - Great Western Park and Ladygrove East (Didcot)
* 2,150 dwellings - Valley Park (Didcot)
* 2,030 dwellings – Greenfield Neighbourhood (Didcot)
* 300 dwellings - Vauxhall Barracks (Didcot)
* 300 dwellings - Town Centre (Didcot)

17.34 The increase in housing (and subsequent increase in car ownership) will cause added pressure to the road network system in general within Science Vale UK with the increased car use for journeys in and out of the area, travel to and from employment and travel to and from the schools.

17.35 The expansion of the major employments sites within Science Vale UK may necessitate the increase in freight and distribution lorries that travel to and from the sites.

Traffic Growth and Congestion

17.36 Science Vale UK is one of three areas in Central Oxfordshire where there is a definite pressure on the road network. The Central Oxfordshire area is heavily reliant on the A34 to provide access to and

from the south between housing and employment. The amount of traffic on the A34 can lead to considerable access problems in the area. This is because the A34 provides both a local access and a national link.

17.37 As demand on the A34 has steadily increased, local traffic has increasingly found alternative routes through the local road network system of A and B roads. These A and B roads are further characterised by the network of minor roads through the villages and suburban areas.

17.38 In recent years measures have been put place to deter the use of more minor roads, but as the demand for travel has increased, the peak hour congestion on the A34 has resulted in existing demand management measures not being sufficient to deter use of the local road network.

17.39 According to the DaSTS: Central Oxfordshire Final Stage 1 Interim Report (May 2010), there is a large amount of traffic travelling in, out and through the Science Vale UK area. During the AM peak period (08:00 – 09:00), there is high number of internal trip between Didcot and Harwell SIC and Didcot and Milton Park. It also showed that there are a high number of trips from the north to Milton Park and Didcot during the same time period.

17.40 The demand for travel has increased such that the key junctions on the road network that are used by traffic on the way to the three main employment sites within Science Vale UK are operating at capacity. The following junctions are:

* Frilford traffic lights
* Rowstock Roundabout
* 'Powerstation roundabout' Didcot
* River crossings (in both directions) at Culham and Clifton Hampden
* The westbound link from Didcot to the Milton Interchange (AM only)
* The eastbound link from Steventon / Rowstock (AM only)
* Featherbed Lane southbound towards A417 (PM only).

17.41 Commercially-provided bus services operate at reasonable frequencies between Wantage, Grove, Abingdon and Oxford, and between Didcot, Abingdon and Oxford, conveying significant numbers of people on these corridors. Bus services also convey many people between the urban centres of Abingdon, Didcot, Wantage and Grove to the major employment sites. Bus services from the smaller settlements are rather less frequent and attractive, however.

17.42 Due to the nature of the topography, access to the area is constrained by river crossings and the North Wessex Downs. The inter-urban routes are served by highway links that are not built to current standards and are thus subject to various speed reductions over the unrestricted National Speed Limit. There are plans for an Upper Thames Reservoir to the north of the Science Vale UK area. The need for it is yet to be proved, however if this scheme were to progress OCC have significant concerns in regard to the impact on the surrounding network from both the construction traffic as well as the leisure use trip generation. If this scheme does progress the impact on the local and strategic road network needs to be addressed by Thames Water the developer of the site.

Area Wide Strategy

17.43 This is the strategy for the Science Vale UK area; the supporting documents for this strategy are the adopted Southern Central Oxfordshire Transport Strategy (SCOTS) and the submission for South Central Oxfordshire for the Department for Transport's Delivering a Sustainable Transport System (DaSTS) programme.

Establishing a transport network that supports economic investment and growth through Science Vale UK to position Oxfordshire as a world-class economy and set out the transport infrastructure necessary to deliver the proposals in the districts councils' LDF's.

Providing a framework for securing funding for these infrastructure needs, both from developers and via national processes.

17.44 When resources or opportunities allow this is to be achieved by:

Strategic Highway Schemes:

* Harwell Strategic Link Road (HSLR) (from A4130 east of Milton Interchange to the A417).
* Harwell Field Link Road (HFLR) (from the A417 to the entrance of Harwell SIC on the A4185, including increased capacity roundabout at Harwell SIC entrance).
* Rowstock Western Link Road (RWLR) (from the A417 Wantage Road to the A4185 Newbury Road, to the south west of Rowstock junction).
* Improvements to Featherbed Lane junctions.
* Wantage Eastern Link Road (WELR) (from the A338 at Mably Way to the A417)

Strategic Public Transport Provision

* Seek the introduction of new rail station(s) at Grove & Wantage and/or Milton Park.
* Seek the introduction of East West Rail services at Didcot Parkway to provide new direct links to Milton Keynes, the West Coast mainline railway and Bedford.
* Improvements to public transport services across the area including:
    - Further development of Premium Routes
    - Development of strategic east-west bus services

17.45 The improvements are set out in detail in the SCOTS Recommended Strategic Transport Package Report (September 2009)

Strategic Cycling Schemes:

* Route 1 – West Lockinge – A417 / Hungerford Road
* Route 2 – Wantage and Grove to East Hanney
* Route 3 – East Hanney to Steventon and Milton Park
* Route 4 – Didcot to Harwell Village
* Route 5 – Milton Park to Drayton and Abingdon
* Route 6 – NCN44 at Harwell SIC to Milton Interchange
* Route 7 – From the southern end of The Winnaway to Didcot
* Route 8 – Wantage to NCN44 link
* Route 9 – Backhill Lane Tunnel

17.46 It should be noted that further work will be required to assess the phasing of all these solutions and to establish the cumulative impact towards supporting the growth of the Science Vale UK area.

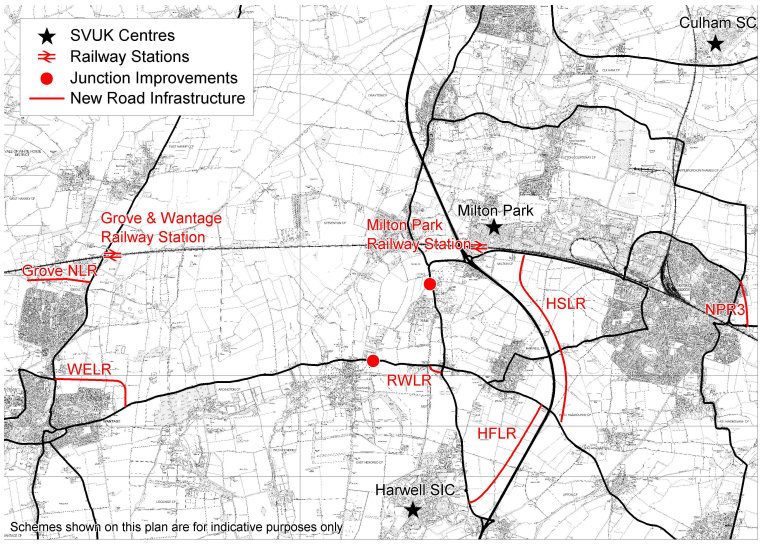

Figure 4 – Science Vale UK Strategic Transport Infrastructure Schemes

Local Transport Strategies for Didcot, Wantage and Grove

Problems and Challenges

Walking

17.47 The lack of clear and concise signage directing walkers to the main destinations in Didcot, Wantage and Grove is a key issue for the towns. There is also an inherent problem in regards to the lack of joined up walking routes from the residential areas to key facilities, amenities and surrounding countryside and villages. This problem is more prevalent in the south of Didcot however improvements should not be ruled out for north Didcot as well. The publicity of pedestrian routes from the residential areas to local services, schools, employment areas and the town centres is also limited. Further to this, maintaining and improving links where public rights of way meet urban footways and highways could help to enable more people to feel confident in using alternatives to the private car for local journeys and recreation.

17.48 The railway line that cuts across the middle of Didcot acts as a barrier for pedestrians (and cyclists) especially those trying to access the south of the town from Ladygrove. Cow Lane tunnel, which provides a cycling and walking link between the north and the south under the railway track, is not an attractive route due to the surrounding environment and perceived safety risks.

17.49 Didcot town centre has been recently re-developed creating more of a pedestrian friendly environment for walkers/shoppers. Phase 2 of the town centre is planned as part of SODC's LDF process. This will see facilities for pedestrians further enhanced.

17.50 The town centre of Wantage has been sympathetically regenerated providing a boost to the vitality of the town and generating strong pedestrian movements. Tourist attractions like the Vale and Downland Museum and nearby Berkshire Downs continue to draw in many visitors that like to walk around the town however better links for local and visiting pedestrians and cyclists are still needed.

17.51 The proposed housing site north east of Wantage at Crab Hill is at an elevated location. It will be important that developers of the site design walking links to and from the site (especially the western edge) that encourage none-motorised modes.

17.52 Another problem/challenge which will need to be addressed is the distance between the new developments and the town centres. If the furthest point of the new housing development is over 1km to the town centre, with the current walking facilities, residents may be more inclined to travel to the centre by car.

Cycling

17.53 There is a significant lack of signed and joined up cycle routes and infrastructure within Didcot, Wantage and Grove and a lack of direct cycle access to key facilities from residential areas; there is also a lack of direct and safe cycle access to facilities between Grove and Wantage.

17.54 On and off carriageway cycle lanes are sporadic around Didcot, and again this problem is more prevalent in the south however improvements should not be ruled out for the north as well.

17.55 A future problem that will need to be addressed is the distance between the new housing development on the outskirts of the settlements to the centres of Didcot, Grove and Wantage. If the furthest point of the development to the town centre is over 2km in distance, with the current cycling facilities that are in place, residents may decide to travel the journey by car.

Public Transport

17.56 Didcot has direct access to a rail station at Didcot Parkway. The station is on the Great Western mainline between London, Bristol and South Wales and is an important transport link for the town. However, rail links to destinations in the West Midlands, including Birmingham, and the North of England are poor as they require a time-consuming change of train in Oxford making them unattractive for many people, including the business community in Science Vale UK.

17.57 At the time of producing this strategy, work is underway on the re-development of Didcot Station forecourt. This is a £5.7m scheme which will transform the existing station frontage into a multi-modal interchange by 2012. A station travel plan will also be developed and introduced for Didcot Parkway station.

17.58 Wantage and Grove do not have direct access to a rail station; however a station is a seen as an important strategic scheme for the area and as such is identified as a scheme to be taken forward through the strategic strategy.

17.59 The Wantage-Grove-Abingdon-Oxford Premium Route operates on a commercial basis 3 times per hour in the daytime (but two of these operate via the A338/A420 into Oxford), and hourly during evenings and Sundays.

17.60 The Didcot-Abingdon-Oxford Premium Route operates once per hour on a commercial basis with some additional peak hour journeys. During evenings and Sundays this service operates from Didcot to Abingdon only. There is a supplementary express service from Oxford to Didcot, extending to Harwell, each hour on weekdays.

17.61 The east-west public transport facility between Wantage, Grove and Didcot operates in two forms, one via Harwell and another via Milton Park, with roughly an hourly service offered between all points during the daytime.

17.62 These services do not meet the required standards for these important transport corridors, of four buses per hour on the Premium Routes, and two buses per peak hour for the east-west routes.

17.63 Improvements have been made at many bus stops on the two Premium Routes, with new poles, flags, waiting environment, raised kerbing and changed layouts. Electronic real-time information display screens have been provided at selected stops.

17.64 Similar improvements are required at the remaining stops on these Premium routes, and certain new stops at selected locations are required along the A338, accompanied by cycle racks, so people can access the express Wantage-Oxford bus route.

17.65 As much of the new development in Didcot, Grove and Wantage will be located away from the Premium or the important east-west routes, additional services will be required to link the new residents with the main employment sites, and to one of the local centres of Didcot, Wantage and Abingdon, as appropriate.

17.66 The new transport interchange at Didcot Parkway station will be a natural focus for many of these services. Improvements are required to the interchange facilities at Didcot's Orchard Centre and in Wantage Market Place.

17.67 Other local bus services serve certain parts of urban Didcot, Wantage Grove and surrounding villages. These routes are relatively infrequent, operating at up an hourly frequency. There will be a challenge is to retain a respectable level of service on such routes, to provide a basic level of accessibility for local communities.

Behavioural Change and Travel Plans

17.68 All schools within Didcot, Wantage and Grove have developed a School Travel Plan, in conjunction with the Travel Behaviour Team at Oxfordshire County Council; the plans detail many of the transport problems faced by the schools and what they are doing to try to combat them. Most of the schools in the area face daily issues such as lack of adequate and secure cycle parking and congestion caused not only by the local traffic but also parents who drop off and pick up their children by car.

17.69 Key employment sites such as Milton Park, to the west of Didcot, are accessible from Didcot via walking, National Cycle Route 5 and a bus service; however, in the case of Milton Park, according to the DaSTS:

Central Oxfordshire Final Stage 1 Interim Report, 81% of employees travel by car therefore further work needs to be done to make travelling via sustainable modes of transport more attractive.

17.70 Access to the key employment sites from Wantage and Grove is very poor as particularly in the case of Grove Technology Park, there are no nearby bus stops or safe walking and cycling routes. However, the proposed housing development at Grove Airfield will give the opportunity to improve transport links in the area, especially to Grove Technology Park.

Highway Infrastructure and Traffic Management

17.71 Didcot is served by a mixture of A and B classified roads, namely the A34, A4130, B4493 and B4016. During weekday morning peak times, there are a number of network congestion issues affecting the key routes within Didcot and further afield such as the A34 Milton Interchange, Milton Park entrances, Cow Lane tunnel and the Jubilee Way roundabout. These routes enable access to the town centre and key employment areas in and around Didcot regardless to the direction of traffic entering the town from surrounding areas.

17.72 There is also evidence of pockets of congestion within the southern residential areas of Didcot. This could be attributed to car drivers trying to avoid congestion on the main routes by rat-running through the south of the town on to Harwell SIC.

17.73 The Broadway, Didcot, will soon be declared an Air Quality Management Area (AQMA) due to the effect vehicle emissions have on the surrounding area; therefore congestion issues on the road and at the roundabout will need to be addressed.

17.74 As previously mentioned the railway line acts as a barrier between north Didcot and the rest of the town. Cow Lane is a one-way (southbound) tunnel under the railway line. There has long been local pressure to open this as a two-way link for vehicular traffic. This tunnel acts as a barrier not only to vehicles but to all modes. Opening up this link to two-way car traffic is likely to have the effect of encouraging greater use by privatised vehicles and goes directly against current Oxfordshire County Council policy. Solutions to this problem are not simple and are likely to be extremely expensive. However, it is hoped that the tunnel can be improved, especially for pedestrians and cyclists. Opening up the tunnel to two-way working would have limited wider benefits and therefore this is not a priority when compared to the strategic infrastructure required to mitigate the planned growth for the area.

17.75 Wantage and Grove are served mainly by A – classified roads, namely the A338 and A417. During weekday morning peak times, a number of network congestion issues affect key routes mainly within Wantage

town centre (along Portway, Ormond Street and Newbury Street up towards Market Place) and the exits on to the A338. These areas are key access routes to services and employment within the town centre and in Oxford and Swindon.

17.76 There is also evidence of pockets of minor congestion within the residential areas of both Wantage and Grove, in particular Ham Road and Denchworth Road in Wantage and Main Street, Brereton Drive and Denchworth Road in Grove. This could be attributed to car drivers trying to avoid the most congested areas rat-running through other parts of town.

17.77 Any potential housing and employment development within Didcot, Wantage and Grove may have a significant impact on the road network especially routes that already have a congestion problem. Mitigation measures will be needed to ensure that the increased vehicle traffic moves fluidly and consistently around the area on designated main roads and does not have an adverse impact on the residential areas.

Local Transport Strategy

Walking and the Pedestrian Environment

To improve facilities for all pedestrians (including disabled people) in Didcot, Wantage and Grove through developing good, clear routes from residential areas to the town centres and other services and facilities around the towns. Along with making sure urban links join up with rights of way.

17.78 When resources or opportunities allow this is to be achieved by:

* Improve facilities for pedestrians by conducting an audit of current footways. The audit will identify schemes to improve legibility, way finding and permeability by creating formal walking routes to key facilities by providing new and improved signage, widening, dropped kerbs, and improved crossing points.
* Publicise and promote walking routes by producing, in conjunction with information on cycling, maps, literature and route planners, both in written print and electronically.
* Improve connections to the rights of way network particularly where urban footways meet rural rights of way though new footpaths and signage to provide footways throughout the town and into the countryside.

Cycling

To ensure that the best cycle routes from residential areas to local services, schools, employment areas and the town centre are publicised. To provide a suitable number of good quality cycle stands at the key destinations and appropriate infrastructure where required along the key routes from the town centres to employment and education.

17.79 When resources or opportunities allow this is to be achieved by:

* Improving facilities for cyclists by conducting an audit of existing cycle ways, well used routes and locations of cycle parking across Didcot, Wantage and Grove. Provision of additional cycle infrastructure such as cycle lanes/paths, advance stops lines, improved signage and crossing points with a particular focus to improve accessibility to key destinations and the schools.
* To develop safe and secure cycle parking within the town centre and at key local services.
* To improve connections to the rights of way network particularly where urban cycleways meet rural rights of ways, so that routes for commuting and recreation are improved.

Public Transport (Bus and Rail)

To work with local bus companies and developers to improve bus services on the existing Premium Routes and the strategic east-west bus corridors to increase accessibility from the existing and new residential areas of Didcot, Wantage and Grove to key facilities further afield and to secure increased accessibility to employment and education.

17.80 When resources or opportunities allow this is to be achieved by:

* Work with the local bus companies and developers to improve the frequency and attractiveness of the existing Premium Route and strategic east-west bus services between Wantage, Grove and Didcot and so increase the patronage and commercial viability of these routes.
* Work with the local bus companies and developers to create routes from new residential developments in Didcot, Wantage and Grove, to link with the key employment sites, the relevant local centre and to key facilities further afield.

* To work with partners to ensure that communities located away from the Premium and strategic east-west routes have access to the public transport network.
* Work with SODC on the redevelopment of Didcot Town centre to ensure that buses serve the Orchard Centre via a through-route and to improve the stopping arrangements.
* Extend Didcot Parkway Foxhall Road car park to accommodate more parking and provide a fully accessible pedestrian link to the station interchange.
* Work with partners to improve facilities for buses in Wantage town centre.

Behavioural Change and Travel Plans

To not only increase awareness and promote better infrastructure for walking, cycling and public transport in and around Didcot, Wantage and Grove and further afield but to also initiate and influence travel behaviour change by encouraging schools, businesses and organisations to make fewer trips by car; to use more efficient and lower emission vehicles as they become available; and encourage a greater number of trips by walking, cycling and public transport.

17.81 When resources or opportunities allow this is to be achieved by:

* Promotion and marketing of cycling, walking and public transport both in written print and in electronic format.
* Continue working with the schools in Didcot, Wantage and Grove that still have high levels of trips by car.
* Identify the businesses that generate high trip rates and contribute towards the traffic in Didcot, Wantage and Grove (especially Harwell SIC, Milton Park and Culham Science Centre) and work with those businesses to develop and implement a workplace travel plan exploring current transport to work modes and travel opportunities and concerns for employees travelling to work. A particular focus should be made on reducing car use, and promoting walking and cycling by exploring the provision of cycling facilities etc.
* Promote car sharing (where possible) to schools or places of employment in order to cut down single car journeys by commuters and/or school runs.
* Ensuring developers of new sites in Didcot, Wantage and Grove undertake detailed Transport Assessments and implement travel plans for the residents, employees and users of their sites.

Highway Infrastructure and Traffic Management

To discourage private car trips in and around Didcot, Wantage and Grove where alternative modes of travel are provided as well as improving existing and providing new infrastructure accommodating real travel needs.

To ensure that the road network can accommodate car trips which are required for longer distance journeys and access.

17.82 When resources or opportunities allow this is to be achieved by:

- Influence a change in travel behaviour by (where possible) encouraging people to make fewer trips by car or use lower emission vehicles as and when technology advances and comes forward; with the aim of reducing average CO_2 emissions in passenger vehicles across Oxfordshire to 130g/km by 2030 and improve air quality levels on Broadway and Didcot on the whole.
- Conduct feasibility studies into schemes which can enhance the junction design of the area's that are most congested within Didcot, Wantage and Grove so the flow of traffic in, out and around the towns and also journey times can be improved.
- Undertake an audit of Cow Lane tunnel, Didcot, to see what, if anything can be done to improve conditions for all users.
- Undertake a feasibility study to see if capacity improvements can be achieved at the Jubilee Way roundabout, Didcot.
- Didcot Northern Perimeter Road – 3rd phase (NPR3)
- Grove Northern Link Road (NLR)

17.83 It is important to note that the NPR3 and Grove NLR schemes are linked to development and are expected to be 100% funded by the developers of the sites (Ladygrove East and Grove Airfield). If the housing does not come to fruition then these schemes are not part of the strategy.

This Strategy replaces the Didcot Integrated Transport Strategy (DidITS) (2004/2005). Contributions collected towards DidITS will be transferred to the LTP3 Science Vale UK Strategy.