

## Chapter 10

# Vale of White Horse

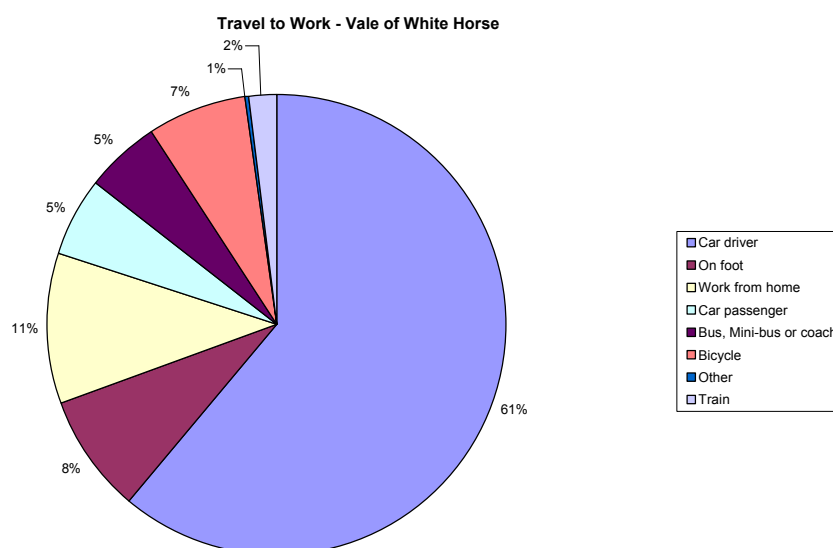
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### Background

The Vale of White Horse has a population of 116,000. Abingdon has the largest population of approximately 31,000, Botley, a suburb of Oxford located within the Vale of White Horse administrative area, has a population of approximately 10,000, Wantage, Grove and Faringdon have populations of 10,000, 8,000, and 6,000 respectively.

The Vale of the White Horse borders Swindon, a major urban centre to the south west and has good links to the national trunk road network. Consequently around 13% (slightly below the average for the county) of the Vale of White Horse's workforce travel outside Oxfordshire to work.

There were 60,000 people in employment living in the Vale recorded in the 2001 census; these people usually travel to work by the following modes:



### Transport Network

The diversity of the Vale of White Horse's road network means that it functions on local, regional and national scales of importance. The district's main settlement - Abingdon - is in close proximity to the national trunk road network and the Vale of White Horse generally has relatively good access to the national motorway network, especially the M4.

## Local Plan Policies

The transport policies, in the Local Plan, reflect joint work on Integrated Land Use and Transport Strategies for Abingdon and Didcot as well as the emerging Wantage and Grove Area Strategic Transport Strategy.

The key elements of the Local Plan for the Vale of White Horse are:

- > Developments in the vicinity of the A34 at Milton Interchange will only be permitted if necessary improvements to the transport network are secured (this includes the developments at Milton Park, Harwell/Chilton Campus, Didcot West and Milton Hill);
- > To protect the existing footpath and cycle network
- > Ensure that improvements to the network seek to avoid the loss of public car parking in the district's town centres;
- > Proposals for improved public transport interchange facilities will be permitted;
- > Development which have significant transport implications will need to be accompanied by a transport assessment and travel plan;
- > Proposals for additional service facilities for alongside the A34 and A420 will only be permitted at Milton Heights, Buckland and Park Road, Faringdon

## Community Strategy

The Vale Community Strategy was developed by the Vale Strategic Partnership. The main issues relevant to this Plan are:

- > Transport - the most frequently identified priorities for action in the consultation exercise were: bus services and linkages with community transport services; traffic congestion; improved and expanded cycle tracks; improved road maintenance; greater consultation to ensure a more systematic and co-ordinated transport system and parking provision.
- > Access to services - some of the priorities identified under this strand were also relevant to transport including more local access points.

## Tackling Congestion

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Within the Vale of the White Horse congestion mainly occurs within, and on the approaches to, Abingdon, Wantage and Grove and on the approaches to Oxford within the district. However there is also localised congestion experienced on other important inter-urban routes which pass through the District and in particular on the A34, the A420, the A417, the A415 and the A338.

### Actions for Tackling Congestion in the Vale of White Horse

The actions for tackling congestion, as outlined in chapter three, are:

|                 |   |
|-----------------|---|
| <i>Action 1</i> | Manage, develop and maintain the county's road network to reduce the impact of bottlenecks (including roadworks) and make better use of existing road capacity to improve the flow of traffic |
| <i>Action 2</i> | Make public transport faster, more reliable and more user-friendly  |
| <i>Action 3</i> | Make walking and cycling safer and more convenient  |
| <i>Action 4</i> | Enable people to make better informed travel choices  |
| <i>Action 5</i> | Manage parking to support transport improvements and initiatives  |
| <i>Action 6</i> | Ensure that new development is planned in such a way as to minimise congestion problems from being created or exacerbated   |

The County Council intends to focus its efforts over the Plan period on the following congestion hotspots in the Vale of White Horse (in order of severity of current problem, but not necessarily the order in which it will be possible to address them). Using the Problem Prioritisation Framework highlighted in Chapter five these problems have been identified as high, medium and low level problems.

### High Ranking Congestion Problems in the Vale of White Horse

#### *A415 Marcham Road Abingdon*

The Marcham Road is the main route into Abingdon from the A34 carrying a flow of 26,000 vehicles per day. It has previously been subject to congestion along most of its length.

To tackle this problem the County Council implemented stage 1 of a two-stage process in 2003/04. Stage 1 was the dualling of Marcham Road from the junction of the A34 to the junction with the Fairacres Retail Park.

The County Council intends to implement Stage 2 of this work using the following actions and solutions to solve the congestion problem along this route:

- > Manage, develop and maintain the road network
  - Widening of the Marcham Road from Fairacres Retail Park to Colwell Drive is due to be implemented in 2006/07

#### *A423 Hinksey Hill to Heyford Hill*

Problems on this route are likely to have an impact on the role of Oxford as a sub-regional centre. Therefore, this problem is being addressed as part of the Central Oxfordshire Transport Area (Chapter six)

#### *A34 Oxford to Abingdon*

Problems on this route are likely to have an impact on the role of Oxford as a sub-regional centre. Therefore, this problem is being addressed as part of the Central Oxfordshire Transport Area.

### Medium Ranking Congestion Problems in the Vale of White Horse

#### *A34 Abingdon to Milton Interchange*

Problems on this route are likely to have an impact on the role of Oxford as a sub-regional centre. Therefore, this problem is being addressed as part of the Central Oxfordshire Transport Area.

### Low Ranking Congestion Problems in the Vale of White Horse

#### *A420 Shrivenham to Swindon*

Although generally free-flowing, queueing can extend back from approaches to Swindon into Oxfordshire. The capacity restriction caused by single-lane dual-carriageway crossing of the Great Western rail line can also cause problems. Flow on the route is around 20,000 vehicles per day.

#### *Vineyard, Abingdon*

The Vineyard is the main road into Abingdon town centre from Oxford and the north. It carries approximately 19,500 vehicles per day. Although a relatively short link it can be subject to congestion throughout the day as traffic is funnelled into the limited capacity town centre streets.

#### *A420 Botley Link Road, Oxford*

Problems on this route are likely to have an impact on the role of Oxford as a sub-regional centre. Therefore, this problem is being addressed as part of the Central Oxfordshire Transport Area.

#### *Drayton Road, Abingdon*

The Drayton Road forms the main non-trunk route into Abingdon from the south and is used by traffic wishing to avoid the A34. It carries approximately 11,000 vehicles per day. Congestion occurs at the junction of this road with the A415 and can extend for the entire length of the B4017 within Abingdon.

*A415/A338 Frilford junction*

The junction between the A415 and A338 is a traffic signal controlled staggered junction. The traffic signals were installed in the 1990s as a measure to reduce accident numbers at what had previously been one of the worst accident blackspots in the county. At peak hours queues can build up on all the entries into the junction.

## Delivering Accessibility

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The mapping has shown that much of Oxfordshire shares similar accessibility characteristic, particularly with regard rural bus accessibility, the notable exceptions are the following:

- > Those living in rural areas have the greatest access to higher education
- > Faringdon suffers from particularly poor access to healthcare
- > Many of those living in the south west of the District look towards Swindon for their needs.

### Access

- > The population has generally good accessibility to supermarkets by car, within 15 minutes and the remainder being no more than 25 minutes by car away from a supermarket.
- > Depending upon the time of the day and in line with the rest of the County, roughly half the population is with a 30 minute bus journey of a supermarket.

### Major Centres:

- > By car, about half the District is within 20 minutes of a major centre by car, with the remainder of the District being no more than 40 minutes car journey.
- > Only about 5% of the District is within 60 minutes of Oxford by bus, the remainder is either more than 60 minutes or is not served bus.

### Town Centres:

- > About 75% are within 15 minutes of a town centre by car and the remainder within 25 minutes.
- > By bus roughly 30% of the District is within a 60 minute bus journey. The remainder is above 60 minutes or not served at all by bus.

### Further Education:

- > Like the rest of the county, nearly 100% of the District has access to further education by car within 25 minutes.
- > About 50% of those living in the rural areas have no bus access under 60 minutes of higher education.

### Primary and Secondary Education:

- > About 75% of the Districts population has access to primary schools of under 10 minutes by car.

- > Access is less good by the conventional bus network, with about 50% being within a 40 minute bus journey.
- > Nearly 100% of the Districts population has access to their nearest secondary school by car of under 25 minutes.
- > About 75% of the District that have no access to secondary schools by conventional bus services, but these are filled in by the contracted school transport.

#### Employment:

- > About half of the population are within a 5 minutes car journey of both selected and ward places of employment.
- > About half of the population have access to employment of under 60 minutes by bus.

#### Healthcare:

- > All of the District is within 25 minutes and about half within 10 minutes of a hospital by car.
- > By bus, only about 25% have access of under 60 minutes.
- > In general access to hospitals is poorer than to other facilities reflecting the concentration of provision in the Oxford and in Banbury. Faringdon in particular suffers from poor access.
- > Nearly everybody has access to GP surgery of less than 20 minutes by car.
- > About half of the population is within 60 minutes of a GP surgery by bus.
- > About 75% of the population is within 10 minutes of a dentist with the remainder being within 25 minutes of a dentist by car.
- > As regards by bus, roughly 30% of the District is within 60 minutes of a dentist by bus.

A series of accessibility workshops have been held looking into the different types of accessibility: access to healthcare, access to work, access to education and access to food and shopping. From these there were several specific issues identified, for the Vale of White Horse:

- > Car sharing has a role to play and Milton Park has a good example of such a scheme in operation. This is web based and helps matches up people to share lifts.
- > The X15 service, connecting Abingdon to Witney via a number of villages, showed how partnership working can produce very positive results.
- > Accessibility by public transport is very poor to Wantage and Grove.
- > It was felt that Harwell is very difficult to access by non car modes and that such developments should not be encouraged in the future.
- > Free buses that Tesco provide gives very useful access to food shopping, however this is limited by its nature to access to Tesco.

Abingdon enjoys a high frequency bus service to Oxford and there is also a high quality service between Wantage and Oxford, running through Abingdon. There is a limited train service to the two rail stations in the vale. It has been a long standing aspiration of the County Council to see the re-opening of a rail station at Grove.

### *Social Exclusion*

While generally the Vale of the White Horse is an affluent area there are pockets of deprivation. The findings of a study commissioned by the County Council from Oxford Consultants for Social Inclusion concluded, in relation to the Vale of White Horse, that:

#### Health:

- > Large parts of the District have a very healthy population.
- > However the wards of Wantage, Abingdon and Faringdon show people needing higher rates of care.

#### Low Income:

- > Is one of the three districts of the county that have rates below the county average, 4.0% compared to 4.9% respectively.
- > One of the ten wards in the County with the highest proportion of people living on a low income is in the District.
- > Has a proportion of people under 20 living on a low income that is below the England, regional and county averages.
- > Has one of the twenty Oxfordshire wards with the highest proportion of people aged 60 living on a low income.

#### Education:

- > Has two of the twenty wards where pupil exam performance is the lowest in the county.
- > The District has two of only six wards in Oxfordshire with post-16 staying on rates below 50%.
- > Has one ward where the number of adults with no qualifications is more than one in three - well above the England and south-east averages.

#### Work:

- > The total worklessness rate is 3.4%.
- > The areas with relatively high claim rates tend to be located in the more urbanised areas.
- > The rate of people workless through unemployment (0.6%) is below the England, regional and county averages.
- > The rate of worklessness as a proportion through sickness is 2.8%, lower than the county, regional and England averages.

## Safer Roads

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In a countywide context, the Vale of White Horse suffers from relatively few major road safety problems. There are, however, a handful of sites at which accident rates are higher than average, and the County Council plans to investigate solutions to these problems as an urgent priority, and build on existing work where previous attempts have been made to improve matters.

### Actions for Safer Roads in the Vale of White Horse

The actions for safer roads, as outlined in Chapter three, are:

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|-----------------|--|
| <i>Action 1</i> | Improve the design and layout of the highway where necessary to address known safety problems                              |
| <i>Action 2</i> | Better management of vehicle speeds  |
| <i>Action 3</i> | Provide effective road safety education, training and publicity  |
| <i>Action 4</i> | Ensure that new development is planned in such a way as to minimise road safety problems from being created or exacerbated |

### Developing Solutions to Air Quality Problems

By their nature, road safety problems and their causes vary enormously from one site to another. The actions above represent general approaches to reducing casualties, both at specific sites such as those listed below and more widely across the network.

In addressing the site-specific problems identified below, the Council will investigate carefully all possible causes of incidents, and use this information to develop appropriate solutions.

#### *A415 gyratory system (High Street, Stert Street and Stratton Way), Abingdon*

Between 2000 and 2004, 43 injury accidents (8 serious and 35 slight) were reported at this location. A very high proportion (nearly 70%) involved pedestrians, these being particularly concentrated in High Street. Major changes to the traffic system in central Abingdon are being planned as part of the Abingdon Integrated Transport Strategy, and the effectiveness of these improvements will be monitored closely.

#### *A420 Botley interchange roundabout*

At this location 31 injury accidents (4 serious and 27 slight) were reported between 2000 and 2004. The majority of these were shunt-type accidents on the immediate approaches to the roundabout.

#### *A4130 roundabout junction with A34 slip roads at Milton interchange*

Between 2000 and 2004, 26 injury accidents (2 serious and 24 slight) were reported at this location. These were mainly shunt-type and similar

accidents with low average severity. Accident frequency has decreased in recent years following signalisation of the junction.

*B4017 Drayton Road junction with Preston Road, Abingdon*

At this location 13 injury accidents (3 serious and 10 slight) were reported between 2000 and 2004. A mini-roundabout introduced in 2000 did not prove satisfactory in respect of safety, with accident numbers increasing appreciably from those seen with the previous layout. The junction was signalised in early 2005 and the site is now being monitored.

*A4183 Oxford Road roundabout junction with Twelve Acre Drive and Dunmore Road, Abingdon*

Between 2000 and 2004 there were 11 injury accidents (3 serious and 8 slight) reported, the circumstances of the accidents at the site were varied, but included 4 collisions with motorcyclists.

*A420 in vicinity of Chowle Farm (South-west of Faringdon)*

Between 2000 and 2004, 10 injury accidents (1 fatal, 2 serious and 7 slight) were reported at this location. The circumstances of the accidents were varied, including loss of control and turning movements to Chowle Farm.

*A338 at Cothill / Tubney staggered crossroads*

At this location 10 injury accidents (3 serious and 7 slight) were reported between 2000 and 2004. The accidents mainly involved right turning movements, though the detailed circumstances are varied. Improvements to the junction were carried out in February 2005, and the impact of the scheme on safety will be monitored.

## Better Air Quality

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Air Quality in the Vale of White Horse is generally very good. It is likely that all national Air Quality Objectives will be met across the district, with the exception of:

- > The 2005 objective for the annual mean concentration of nitrogen dioxide, of which exceedances are *likely* in one location, and *possible* in two others.
- > The 2004 objective for the 24-hour mean concentration of particulate matter (PM10s), of which exceedances are possible in three locations (2004 monitoring and modelling data is not yet available).

### Actions for Better Air Quality in the Vale of White Horse

The actions for Better Air Quality, as outlined in Chapter three, are:

|                 |  |
|-----------------|--|
| <i>Action 1</i> | Manage, develop and maintain the county's road network to reduce the impact of bottlenecks (including roadworks) and make better use of existing road capacity to improve the flow of traffic through polluted areas |
| <i>Action 2</i> | Make public transport faster, more reliable and more user-friendly   |
| <i>Action 3</i> | Make walking and cycling safer and more convenient   |
| <i>Action 4</i> | Enable people to make better informed travel choices   |
| <i>Action 5</i> | Manage parking to support transport improvements and initiatives   |
| <i>Action 6</i> | Find ways to encourage the use of vehicles with lower exhaust emissions  |
| <i>Action 7</i> | Restrict vehicles from areas of poor air quality   |
| <i>Action 8</i> | Provide alternative routes for traffic to avoid areas of poor air quality  |
| <i>Action 9</i> | Ensure that new development is located in such a way as to minimise air quality problems being created or exacerbated  |

### Developing Solutions to Air Quality Problems

Where pollutant concentrations exceed national standards, local authorities are required to declare an Air Quality Management Area covering the affected streets. Authorities must then develop an Air Quality Action Plan which sets out how they reduce concentrations of the pollutants concerned to meet national air quality objectives.

All designated air quality problems in Oxfordshire are caused predominantly by road traffic emissions, so Air Quality Action Plans in Oxfordshire will focus on reducing pollution from traffic using the actions identified in the table above.

### *Nitrogen Dioxide*

It is likely that the 2005 objective for the annual mean concentration of nitrogen dioxide will be exceeded in Stert Street and High Street, Abingdon. Further monitoring and modelling will be carried out to establish more accurately the extent and level of the likely exceedance, and an Air Quality Management Area declared if necessary.

Improvements to both streets are planned as part of the Abingdon Integrated Transport Strategy, and significant reductions in emissions are predicted to result from these improvements. While it is not possible to say without further monitoring and modelling whether the scheme will remove the exceedance completely major progress should certainly be made towards meeting the objective as a result of the improvements. In any case, the scheme is not due to be implemented until after 2005, so it is therefore likely that the 2005 objective for the annual mean concentration of nitrogen dioxide will be exceeded.

It is possible that the 2005 objective for the annual mean concentration of nitrogen dioxide will be exceeded at two further locations in the Vale of White Horse: Westminster Way in Botley, and the Manor Preparatory School, in Abingdon. In both cases, the source of the emissions is traffic on the A34, and any exceedance would only affect those buildings closest to the road.

Further assessment of these locations will be carried out to establish if the objective will be exceeded, and Air Quality Management Areas will be declared if necessary.

### *Other Pollutants*

It is possible that the 2004 objective for the 24-hour mean concentration of particulate matter (PM10) could be exceeded at three locations:

- > Botley County Primary School, Botley
- > The Manor Preparatory School, Abingdon
- > High Street and Stert Street, Abingdon.

Further assessment of these locations will be carried out to establish if the objective for particulates will be exceeded, and an Air Quality Management Area will be declared if necessary.

## Improving the Street Environment

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### Actions for Improving the Street Environment in the Vale of White Horse

The actions for Improving the Street Environment, as outlined in chapter three, are:

|                 |   |
|-----------------|---|
| <i>Action 1</i> | Improve the design and layout of the streets with a poor quality environment, using high quality materials and street furniture wherever possible |
| <i>Action 2</i> | Restrict vehicles from areas of poor street environment   |
| <i>Action 3</i> | Make walking and cycling safer and more convenient  |
| <i>Action 4</i> | Enable people to make better informed travel choices  |
| <i>Action 5</i> | Manage parking to support transport improvements and initiatives  |
| <i>Action 6</i> | Provide alternative routes for traffic to avoid streets with a poor environment   |

### Developing Solutions to Street Environment Problems

By their nature, street environment problems and their causes vary enormously from one site to another. The actions above represent general approaches to improving the attractiveness and ambience of streets.

In addressing the street environment problems identified below, the Council will review the quality of the streets concerned, their transport function, and their current and potential usage as a public space. The Council will use this assessment to develop appropriate solutions based on the actions outlined in the table above.

The following areas have been identified as being where transport contributes to an overall problem in quality of public spaces:

#### *Market Place, Wantage*

Market Place still forms the heart of the retail centre of Wantage although its current layout hampers pedestrian flow across the square and is dominated by traffic and parking. The layout of the town's road network presents few opportunities for significant reductions in traffic levels in Market Place but improvements in the general layout could potentially provide a better environment for shoppers while improving the economic potential of the area.

#### *Stert Street/High Street, Abingdon*

Stert Street and High Street are two of the main shopping streets within Abingdon but form part of the town centre gyratory system. This affects both their effectiveness as shopping areas, particularly for Stert Street and their attractiveness as part of the overall town centre. The route also passes through the Market Place close to the Guildhall and Old County Hall. The Abingdon Integrated Transport Strategy has proposed that Stratton Way,

a modern road which forms the third side of the gyratory system be converted to two way operation so that traffic can be significantly reduced on High Street and Stert Street, allowing significant environmental improvements to be made.

## Integrated Delivery

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The County Council recognises the importance of tackling transport problems of all kinds in a strategic and integrated way to ensure the full impacts of proposed schemes and initiatives are fully understood. The Council has put in place two main mechanisms - the Transport Networks Review and Integrated Transport Strategies - for ensuring schemes and initiatives developed in response to the problems above are considered as strategic elements of a package wherever appropriate, rather than measures implemented in isolation from one another.

### Intra-urban Networks: Integrated Transport Strategies (ITS)

ITSs have been developed for many of Oxfordshire's larger towns and for Oxford. In the Vale of White Horse, Abingdon and Wantage & Grove have Integrated Transport Strategies. The role of the ITSs in the second Local Transport Plan period will be to help the Council deliver the five objectives of the Plan in an integrated, efficient and cost-effective way. To this end, the ITSs will have three key functions:

- > Ensuring transport problems in larger urban areas are addressed in an integrated way, recognising the complex inter-relationships that often exist between different parts of an urban transport network;
- > Providing an established structure for consultation with local communities, stakeholders and local government partners;
- > Providing a framework for integration between transport and land use planning.

### Inter-urban Networks: Transport Networks Review (TNR)

The TNR study was completed in October 2004, and has helped to guide the County Council's longer-term transport objectives and strategy, as set out in Chapter 1. The study has also provided a strategic framework for the development of schemes which are likely to impact significantly on the operation of the County's strategic transport network. In developing solutions to the problems outlined above, the methods and conclusions of the TNR will be referred to as necessary to ensure any wider network considerations are taken fully into account.

## Marcham Bypass

Major scheme funding for the Marcham Bypass has not so far been approved through the Local Transport Plan process. The bypass if accepted for funding will remove 90% of through traffic from the narrow and winding road through the village and so significantly reduce community severance and, as well as gaining environmental benefits through the removal of traffic, it will allow other improvements to be made in the village. It offers large benefits to road users as well as to local residents.

### Remainder of the District

The Transport Networks Review recommended that measures be taken on a number of roads in the Vale of the White Horse to protect them from excessive traffic, particularly where traffic is using them to bypass congestion locations on the major road network.

These were (in the short-term - 2006-11):

- > A4095 (Faringdon to A40) - downgrade to B road
- > B4508 - downgrade to unclassified

In the medium term (2011-16):

- > A415 - Abingdon to Witney improvements

In the longer term (2016-21):

- > Abingdon southern relief road and A34 access

Also identified was the potential need, for a development-related Wantage North East Bypass.

New Bridge is one of the oldest bridges in the county dating from the 12th century and with no modification it is still carrying 21st century traffic on the A415 across the River Thames. It has been assessed as substandard and recent inspections show that it is deteriorating fast. The bridge is classed as an ancient monument, this combined with the narrow road and poor vertical alignment means that the bridge cannot be strengthened and a new alignment is proposed. Construction is proposed for 2009/10.

The recent structural assessment of road over rail bridges has identified a number of substandard bridges unable to carry 40 tonnes. Access to Milton Park from the A34 is also limited to vehicles less than 7.5 tonnes because of the restriction imposed at Potash Bridge. This bridge is programmed to be replaced in the next five years.

### Cross Boundary Issues

*Swindon*

The growth of Swindon as a Principal Urban Area could have significant impacts on traffic and travel in Oxfordshire. A large proportion of the Vale of White Horse looks to Swindon for goods and services and therefore continued good links are essential. The A420 forms the direct link between Oxford and Swindon. While this is generally of a reasonable standard there are some sections which are approaching capacity and have road safety concerns. The precise location of the development within Swindon is likely to have and impacts on the effects that it has on Oxfordshire in general and the A420 in particular. The County Council will continue to be closely involved in the process for determining how Swindon should respond to its development demands.