
Swindon Borough Council

Local Transport Plan (2006 to 2011)

ENVIRONMENTAL REPORT

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Copies of this Environmental Report, as well as the Local Transport Plan (2006 to 2011) and the associated Appendices, are available to inspect in the central libraries or Council reception areas, and are also available on the Council's website.

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September 2005

Swindon Borough Council

Local Transport Plan (2006 to 2011)

Executive Summary.

<i>This Report</i>	<p>This Environmental Report summarises the findings and results of the Strategic Environmental Assessment (SEA) process carried out alongside the development of Swindon Borough Council's second Local Transport Plan (2006 to 2011).</p> <p>The SEA was undertaken in order to identify the potential cumulative environmental effects of the different Local Transport Plan strategy options that were considered. It also presents possible mitigation measures that could be carried out in conjunction with the final chosen preferred strategy in order to alleviate or avoid any adverse environmental effects arising from the implementation of the preferred strategy.</p>
<i>Legal Background</i>	<p>The new EC directive on Strategic Environmental Assessment, which has been implemented in England via Statutory Instrument 2004 no. 1633, requires authorities to produce an Environmental Report on the likely significant environmental impacts of the measures proposed in their provisional second Local Transport Plan. This allows the public and statutory environmental bodies (Countryside Agency, English Heritage, English Nature and the Environment Agency) an opportunity to influence the final version of the Plan. Once the second Local Transport Plan has been adopted, a statement must be produced to summarise how the Strategic Environmental Assessment has been taken in to account.</p>
<i>Development Pressures</i>	<p>The Regional Planning Guidance for the South West (RPG10), published in 2001, sets out the challenge of delivering an average of 20,200 additional dwellings per year across the South West, for each year from 1996 to 2016. Of these, 3,000 per year have been allocated to Wiltshire and Swindon. The Swindon Structure Plan sets out commitments to accommodate 26,000 new dwellings between 1996 and 2016. In total, 9,000 houses will be completed in the Northern Development Area by 2011, and a further 4,500 will be under construction in the Southern Development Area. A further 2,300 dwellings are anticipated within the existing urban</p>

	<p>area. In addition, 2,500 dwellings have been allocated in the south of Swindon at Coate which could start construction in 2006. The housing will be accompanied by 280 hectares of employment land at Coate, the Southern Development Area, and the “Triangle” to the east.</p>
<i>Local Environment</i>	<p>Overall, 87% of the population live in urban Swindon although the Borough’s four rural wards cover 75% of the geographical area. The Borough retains 88 <i>Sites of Interest for Nature Conservation</i> (SINC) or <i>County Wildlife Sites</i> (CWS), and there are three designated <i>Sites of Special Scientific Interest</i> (SSSI). The North Wessex Downs <i>Area of Outstanding Natural Beauty</i> (AONB) encompasses a large area in the south of Swindon, and a management plan in being prepared. There are currently no air quality management areas in the Borough of Swindon.</p>
<i>Developing the second Local Transport Plan</i>	<p>In order to identify the most suitable strategy for the second Local Transport Plan, Swindon Borough Council had to take into account many factors over the Plan period, and not only environmental effects. Of over-riding impact has been the funding allocation indicated by the Department for Transport, and to which all local authorities must tailor their local transport plan and their proposed five-year capital programme of scheme delivery. This over-riding constraint has meant that while the potential of certain transport initiatives can be stated, the actual impact given the funding available will be reduced.</p> <p>In addition to the environmental impacts, the development of Swindon Borough Council’s second Local Transport Plan (2006 to 2011) had also to consider economic and social impacts and whether the schemes and initiatives put forward would address both current and future problems and issues. This Environmental Report focuses on the potential environmental effects but also identifies where these other issues have an over-riding effect.</p> <p>In developing the final Local Transport Plan for the Borough of Swindon, six strategy options were considered:</p> <ul style="list-style-type: none"> 0: No second Local Transport Plan “do minimum” 1: Increasing network capacity for private vehicles 2: Enhancing and improving bus travel 3: Demand management 4: Raising awareness and promotion of sustainable travel options 5: Preferred strategy – combination of above elements

<p><i>Consultation for LTP2</i></p>	<p>In order to understand better the concerns of residents, businesses, service providers and visitors to the Borough of Swindon, the opportunity to contribute to the Local Transport Plan process was offered to a wide-ranging audience. Not only were interest groups and employers approached directly for their views, but also residents were approached with questionnaires in the Council's <i>Swindon News</i>, and the general public were approached at exhibitions held in Asda Walmart, the Brunel Centre and at the Great Western Hospital.</p> <p>Respondents were asked what they felt the biggest transport issues were for the Borough of Swindon both now and in to the future, and what they felt the Council should be doing to address these issues. The results received have helped the Council to identify potential issues. An appreciation of these issues will mean a greater likelihood of success for the strategies and policies developed as part of the second Local Transport Plan. The strategies, measures and initiatives developed have been chosen to enhance quality of life in the area, assist with the economic regeneration in the town centre, and improve road safety whilst ensuring minimal environmental degradation.</p> <p>As part of this consultation process, the statutory environmental consultees were also contacted so that their views could be incorporated into the provisional second Local Transport Plan document. They are now being contacted again for their views on the more specific strategies and actions set out in the Plan.</p>
<p><i>Overall Impact of LTP2 on the Environment</i></p>	<p>The SEA identifies that the final Local Transport Plan will have a positive effect on the environment. Where schemes have been proposed that will involve larger-scale construction, the statutory environmental surveys will be undertaken and appropriate mitigation works ensured.</p>

Swindon Borough Council Local Transport Plan (2006 to 2011)

Contents

1	Introduction	7
2	Environmental Baseline	24
3	Analysis of Alternative Strategy Options and Environmental Assessment	49
	Introduction	49
	0: No second Local Transport Plan “no minimum”	
	1: Increasing network capacity for private vehicles	
	2: Enhancing and improving bus travel	
	3: Demand management	
	4: Raising awareness and promotion of sustainable travel options	
	5: Preferred strategy – combination of above elements	
	The Preferred Strategy	52
	Proposed Mitigation Work alongside the Preferred Strategy	53
	Monitoring the Environmental Effects of the second Local Transport Plan	53
	Appendices	
	A. Copies of letters sent to statutory Environmental Consultees and their responses to stage	55
	B. Summary Table for environmental assessment of strategy options	56
	C. 1. Plans and programmes reviewed for Stage A	63
	2. Relevant objectives and targets from plans and programmes	
	D. Compatibility Matrix	77

E. Designation Maps	80
Figures	
1.1 Indicative Government Funding for the second Local Transport Plan	12
1.2 NATA and SEA Stages	17
Tables	
1.1 Method of Commuting to Work in Swindon (source 2001 Census)	10
1.2 Number of People Killed and Seriously Injured in the Borough and Future Target	11
1.3 Indicative Government Funding for second Local Transport Plan	12
1.4 NATA Objectives, Sub-objectives and Other Topics to be Addressed within the SEA	15
1.5 SEA Stages	16
2.1 Nitrogen Dioxide Annual Mean Values at Swindon Sites	30
2.2 Weather Forecast	33
2.3 National Census Data	36
2.4 Environmental Problems and Opportunities	45
2.5 SEA Objectives, Indicators and Baseline	45
3.1 Summary of the Environmental Effect of the second Local Transport Plan options	52

1: Introduction

- ❑ **Swindon in Context**
- ❑ **Outline of Swindon Borough Council's second Local Transport Plan (2006 to 2011): "LTP2"**
- ❑ **Main objectives of LTP2**
- ❑ **Introduction to Strategic Environmental Assessments (SEA)**
- ❑ **SEA Stages**

This introduction sets the scene in the Borough in terms of people, traffic and future plans. It sets out the factors currently influencing the future, and therefore also influencing the development of the Council's second Local Transport Plan.

The introduction then summarises the legal status of SEAs, what aspects are considered and how they should be undertaken.

Working within these parameters, this Environmental Report then goes on to summarise how the options available for the implementation of LTP2 were assessed in terms of their impact on the environment. It is believed that the final version of Swindon Borough Council's second Local Transport Plan is challenging yet realistic.

Swindon in Context

Population

1.1 Swindon is an expanding town: over the last 50 years, the population has doubled. This growth is in part the result firstly of the post-war London overspill policy in the 1950s and 1960s, and secondly the opening of the M4 in 1972. There are currently, approximately 181,000 people living in the Borough and this figure is expected to increase to 194,000 by 2011.

Ethnic Diversity

1.2 According to the 2001 census, 95% of the population of Swindon recorded themselves as white, 2% were Asian or of Asian origin, and the remainder were Chinese, other ethnic groups and mixed heritage. Swindon Borough Council supports the celebration of ethnic diversity, for example the Swindon *Mela* which

is a vibrant and colourful event presenting Asian art and culture, shows, activities, stalls and food.

1.3 Swindon Borough Council also takes very seriously its Race Equalities responsibilities. Although race issues often do not play a large part in, for example, highway maintenance, the second Local Transport Plan has taken account of different ethnic-based concerns when developing the five-year capital programme, as well as ensuring that the document itself is accessible.

Housing

1.4 The Regional Planning Guidance for the South West (RPG10), published in 2001, sets out the challenge of delivering an average of 20,200 additional dwellings per year across the South West, for each year from 1996 to 2016. Of these, 3,000 per year have been allocated to Wiltshire and Swindon. The Swindon Structure Plan sets out commitments to accommodate 26,000 new dwellings between 1996 and 2016. In total, 9,000 houses will be completed in the Northern Development Area by 2011, and a further 4,500 will be under construction in the Southern Development Area. A further 2,300 dwellings are anticipated within the existing urban area. In addition, 2,500 dwellings have been allocated in the south of Swindon at Coate which could start construction in 2006. The housing will be accompanied by 280 hectares of employment land at Coate, the Southern Development Area, and the "Triangle" to the east.

Environment

1.5 Overall, 87% of the population live in urban Swindon although the Borough's four rural wards cover 75% of the geographical area. The Borough retains 88 *Sites of Interest for Nature Conservation (SINC)* or *County Wildlife Sites (CWS)*, and there are three designated *Sites of Special Scientific Interest (SSSI)*. The *North Wessex Downs Area of Outstanding Natural Beauty (AONB)* encompasses a large area in the south of Swindon, and a management plan is being prepared. Appendix E presents this information graphically. There are currently no air quality management areas in the Borough of Swindon.

Economy

1.6 Overall, the economy is very successful. It has the second highest economic value created per head outside London, and 1.4% unemployment in January 2005. As a whole, Swindon experiences slightly less than the national average reported crime rate, and less than half that of the larger urban areas such as the City of Bristol. The town has developed from its traditional manufacturing base (which included railway engineering, munitions and garment making) to an important international centre including financial and service industries, new technologies and research enterprises as well as manufacturing and distribution companies.

Regeneration

1.7 Swindon's town centre is in great need of regeneration. Economic prosperity, the result of an expanding town with major employers new shopping centres and large-scale housing developments, masks significant areas of deprivation. In 2002, The New Swindon (Urban Regeneration) Company was set up, with partners English Partnerships, the South West Regional Development Agency and the Council, as a driving force for urban regeneration.

1.8 Neighbourhood renewal and regeneration are an important priority for the Council. Although there are two wards (Penhill and Parks) in Swindon ranked in the worst 10% on the national index of multiple deprivation, the Neighbourhood Renewal Strategy has worked to identify the "hidden" areas which are not always consistent with official ward boundaries. The Council's Neighbourhood Renewal Strategy, ratified in 2004, will run through most of the second Local Transport Plan period to 2010.

Traffic

1.9 According to the National Traffic Survey (DfT), traffic on the roads in the Borough of Swindon (not including trunk roads) has increased from 979 million vehicle kilometres per year at the start of the first Local Transport Plan period (2001) to 1028 in 2003 (i.e. +5%). Although the current Borough Council only came in to existence in 1997, data for the Borough area can be determined before that date, and in 1993 there was 897 million vehicle kilometres travelled. This apparently steady increase masks more localised variations that are evident from inspection of the inner, middle and outer cordon manual classified counts (collected in rotation), and from the rail screen-line (12-hour manual counts), and from the automatic traffic counter monitoring undertaken by the Council. In summary, the amount of traffic crossing the inner and middle cordons has decreased by 2% (1998 to 2004) and 3% (1999 to 2005) respectively, while traffic crossing the outer cordon has increased by 21% (1997 to 2003). By way of comparison, over the same time periods, cycling has decreased across the inner cordon (9%) but increased across both the middle and outer cordons (18% and 10% respectively). The increase across the outer cordon is partly a reflection of the increase in large edge of town employment sites such as Honda.

1.10 Currently, in the morning peak there are approximately 150,000 people on the roads in Swindon, and 50,000 vehicles. Modelling has suggested that certain links within the town could experience traffic growth of 24% by 2011 if current conditions prevail and all committed development is completed; and the average growth in the outer area could be 17%.

Commuting

1.11 The 2001 Census (Office for National Statistics, 2004) reported that 82% (79,768 out of 97,487) of the economically active population of the Borough of

Swindon also work in the Borough. However, in addition a further 28,389 people travel into Swindon each day to work. Table 1.1 presents the methods of commuting in Swindon reported in the 2001 census.

Table 1.1: Method of Commuting to Work in Swindon (source: 2001 Census)

driving car or van	59%
walking	10%
bus, minibus, coach	8%
work mainly at or from home	7%
passenger in car or van	7%
bicycle	5%
motorcycle, scooter, moped	2%
train	1%
taxi	1%
underground, metro, light rail tram	0%
other	0%

Note: percentages are calculated using the number of people aged between 16 and 74 in employment.

Accidents

1.12 Swindon Borough Council has been successful over the last five years tackling the causes of accidents and reducing the severity of injuries through a combination of engineering measures and marketing, promotion and training to raise awareness of road safety issues and to disseminate safe practices. Table 1.2 presents a summary of the number of accidents and the challenging target that has been set for the next five years.

Table 1.2: Number of People Killed and Seriously Injured in the Borough, and Future Target

	<i>all</i>	<i>child</i>
2000/2001	104	13
2001/2002	109	16
2002/2003	107	16
2003/2004	83	14
2004/2005	80	7
NATIONAL TARGET* by 2010/2011	59	8

Note: Swindon Borough Council is already doing better than the nationally-set target. However, in order to guard against large percentage "swings" resulting from the small numbers of children killed and seriously injured, a three-year average will be used, and a new target calculated if necessary in 2009.

Outline of Swindon Borough Council's second Local Transport Plan (2006 to 2011): "LTP2"

1.13 As part of the development of Swindon Borough Council's second Local Transport Plan, a separate summary leaflet has been prepared and accompanies this Environmental Report. The summary sets out the longer-term view for the Borough, the objectives developed for LTP2, the likely funding available and the targets that have been set in order to monitor success. A detachable questionnaire and free-post reply envelope is also included.

1.14 In over-view, wide-ranging consultation work helped to identify the most important transport issues facing the Borough over the next five to ten years. These issues have been developed into the over-arching aims for the second Local Transport Plan in conjunction with the requirements of national transport policy, national and regional aspirations for growth in the area, and other corporate plans and commitments. A summary of these influences and other important considerations is presented in Chapter 2 of the second Local Transport Plan. In 2005, the new interim Chief Executive championed the development of *Swindon 2010* a document which set out 50 promises designed as targets to challenge and motivate the Council. A further, very important, element shaping the future of Swindon is that of urban regeneration. The New Swindon Company was established in 2002. The Regeneration Framework describes the seven proposed major project areas which include development targets of 3,000 residential units, 100,000 square metres of offices and 100,000 square metres of retail. Copies of both *Swindon 2010* and The New Swindon Company's leaflet accompany this Environmental Report, and additional maps are presented in Appendix E.

1.15 The strategies, targets and the five-year programme of capital schemes set out in the second Local Transport Plan have also been developed tailored to the limited funding allocation indicated for Swindon Borough Council by the Department for Transport. The Department for Transport has developed a formula to calculate how much capital funding each local authority should be allocated by Government. The current indicative allocations to Swindon are set out below (Figure 1.1 and Table 1.3) and split between *integrated transport* (first column) and *maintenance* (second column). The combined total funding is indicated with triangles. The Government is currently consulting on a number of refinements to the formula, and a final decision will be announced in December 2005. The figures shown below assume the proposed five-year phasing scenario.

1.16 In addition to the indicative allocation from Government, the Council can also use its own funds or secure funding from developers for transport improvements.

Figure 1.1: Indicative Government Funding for the second Local Transport Plan

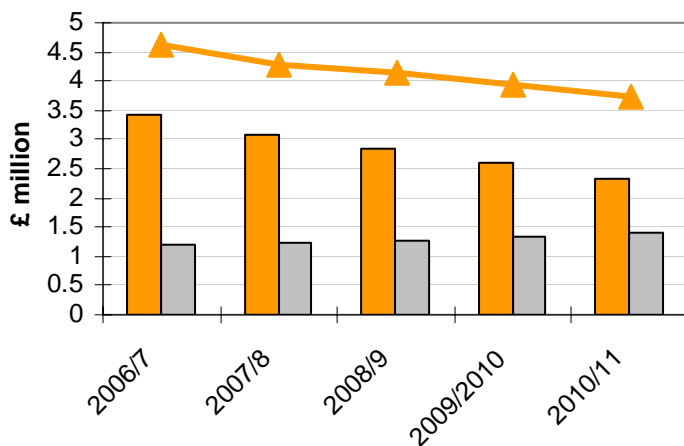


Table 1.3: Indicative Government Funding for the second Local Transport Plan

	Integrated	Maintenance	TOTAL
2006/7	3.420	1.198	4.618
2007/8	3.067	1.222	4.289
2008/9	2.851	1.283	4.134
2009/2010	2.606	1.347	3.953
2010/11	2.328	1.414	3.742

Note: Figures do not include major schemes (costing more than £5 million), exceptional schemes, primary route bridge maintenance works or emergency maintenance funding. The maintenance allocations will be recalculated from November 2006.

Government Shared Priorities

1.17 In July 2002 the Government and Local Government Association agreed a set of seven shared priorities for local government. These priorities include raising the standards across schools, transforming the local environment and meeting local transport needs more effectively by tackling:

- accessibility
- congestion
- air quality
- road safety

1.18 The consultation suggested that congestion should be a high priority based on the concerns about growth in Swindon and the impact on the road network. Many of the strategies are therefore presented under this heading although they could sit equally well under the others.

Main Local Objectives of "LTP2"

- ① Work in partnership with The New Swindon Company and others to support the regeneration of the town centre and other neighbourhood renewal areas by improving access to, and travel round, these areas.
- ② Manage the impact of traffic growth in Swindon by implementing sustainable mitigation measures.
- ③ Maintain and make best use of the existing transport infrastructure to provide the optimum level of service for all users, with selective infrastructure improvements where an acceptable level of service cannot otherwise be achieved.
- ④ Improve road safety.
- ⑤ Promote travel choice and increase opportunities for travel by public transport, cycling and walking.
- ⑥ Work with the strategic transport authorities (Highways Agency, Strategic Rail Authority, etc) to maintain an appropriate level of service on the strategic networks.
- ⑦ Manage the impact of transport on the built and natural environment.

- ⑧ Develop orbital and other route networks and road hierarchies that acknowledge the complex journey patterns within the urban area and reflect the locations of significant trip attractors.
- ⑨ Improve rights of way to, from and within Swindon's urban fringe and rural buffer, to enhance access to the countryside and improve pedestrian/cycle links with the urban networks.
- ⑩ Tackle issues of social exclusion and accessibility resulting from economic disparities in order to improve the quality of life in the Borough of Swindon.

Introduction to the Strategic Environmental Assessment

1.19 Since July 2004 it has been a statutory requirement^α to undertake a Strategic Environmental Assessment (SEA) on all “plans and programmes, and modifications to them, whose formal preparation began after 21st July 2004” or “whose formal preparation began before that date, if they have not been adopted by 21st July 2006” (ODPM, 2004). The objective of the SEA Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development. The SEA also works to inform the decision-making process through the identification and assessment of the cumulative significant effects a plan or programme will have to the environment at a strategic level.

1.20 In order to fulfil the requirements of the SEA Directive, a number of topic areas have to be considered. The regulations also require the consideration of the secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects of the Plan on the above topic areas. Therefore, for clarity, Table 1.4 shows how the SEA topic areas are related to both New Approach to Transport Appraisal (NATA) major objectives and sub-objectives, and what more other elements might also be considered.

1.21 The New Approach to Appraisal (NATA) encourages designers and project managers to develop proposals that offer improvements across all of central Government's five main objectives for transport: environment, safety, economy, accessibility and integration. Scheme impacts can be summarised in qualitative, quantitative or money terms. Throughout the appraisal process all five objectives are given equal prominence.

^α European Directive 2001/42/EC and *The Environmental Assessment of Plans and Programmes Regulations 2004*.

Table 1.4: NATA Objectives, Sub-objectives and Other Topics to be Addressed within the SEA

NATA Objective	NATA Sub-objective	SEA Topic
Environment	Noise	Human health and population
	Local Air Quality	Air
	Greenhouse Gases	Climatic factors
	Landscape/Townscape	Landscape
	Heritage	Cultural heritage including architectural and archaeological heritage
	Biodiversity	Biodiversity, fauna, flora, soil
	Water	Water
	Physical Fitness	Human health, population
Safety	Accidents	Human health, population
	Security	Human health, population
Accessibility	Community Severance	Human health, population
	Access to Transport System	Human health, population
Economy	Public Accounts	Material Assets
	Business Users and Providers	Material Assets

Note: The *population* and *human health* topics have significant overlap with; *noise*, *physical fitness*, *accidents*, *security*, *community severance*, and *access to transport*. They have therefore been joined together for the purposes of this SEA. The topic *material assets* in this SEA has focussed on the economic prosperity of the town centre and the regeneration of the urban area.

SEA Stages

1.22 Members of the Transport Planning Team within Swindon Borough Council have worked with other sections within the Council as well as consulting with the statutory environmental consultees to undertake an SEA as part of the development of it's second Local Transport Plan (2006 to 2011), and to help provide clarity on which options should be taken forward to form the final strategy. Table 1.5 sets out the key stages carried out as part of the SEA. Figure 1.2 presents these stages grouped as a flow diagram. In applying the SEA Directive to the development of the second Local Transport Plan, Swindon Borough Council aimed to:

- 1 identify transport strategy options;
- 2 evaluate the cumulate significant environmental effects of the strategy options;
- 3 provide decision makers with a more full understanding of the environmental implications of the proposed strategy;
- 4 mitigate environmental impacts arising from the implementation of the

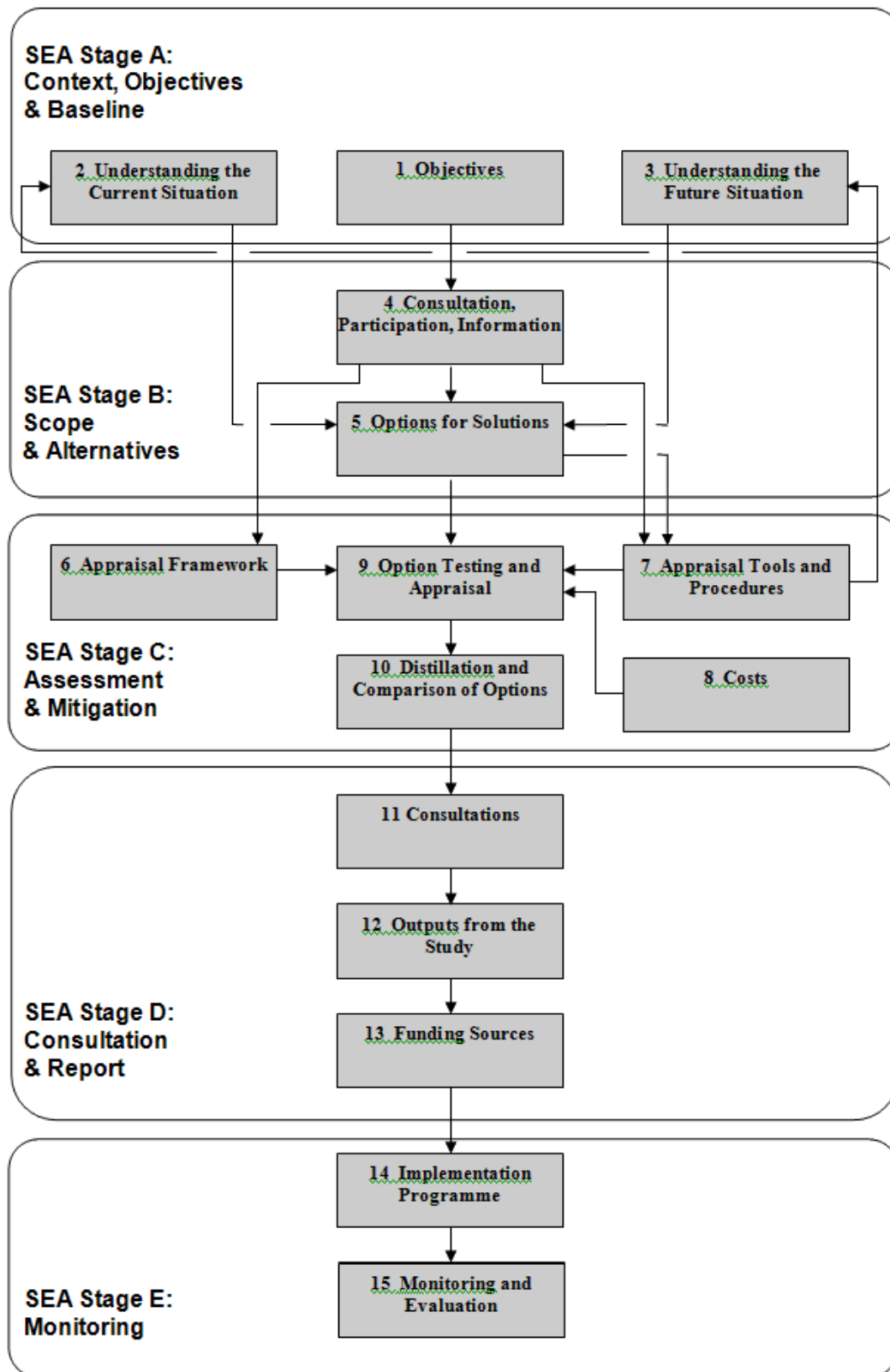
proposals; and

5 reduce/minimise the environmental impacts from transport.

Table 1.5: SEA Stages

Stage	Action
A: Set context and establish environmental baseline	<ul style="list-style-type: none"> ● Identify relevant plans, programmes and environmental protection objectives. ● Establish SEA objectives and indicators. ● Establish environmental baseline. ● Outline existing environmental problems relevant to the second Local Transport Plan.
B: Establish SEA scope and develop alternatives	<ul style="list-style-type: none"> ● Identify alternatives at the strategic level. ● Scope the significant effects of strategy options. ● Scoping study: consultation with statutory environmental bodies.
C: Assessing the effects of the plan	<ul style="list-style-type: none"> ● Description of the significant effects of the plan on the environment. ● Outline reasons for selection of preferred strategy. ● Proposed mitigation measures to offset any adverse effects on the environment from the implementation of the second Local Transport Plan. ● Description of monitoring measures.
D: The Environmental Report	<ul style="list-style-type: none"> ● Prepare the Environmental Report. ● Publish Environmental Report alongside the second Local Transport Plan.
E: Monitoring	<ul style="list-style-type: none"> ● Monitor and report on the effects of the second Local Transport Plan.

Figure 1.2: NATA and SEA Stages



1.23 Swindon Borough Council, in partnership with other agencies, has undertaken an SEA as part of the development of its second Local Transport Plan (2006 to 2011), to help provide clarity on which options should be taken forward to form the final strategy. Below is a summary of this work.

Stages A and B

1.24 In the autumn of 2004 the four statutory environmental consultees: the Countryside Agency, English Heritage, English Nature and the Environment Agency were asked to comment on the likely nature and scale of Swindon Borough Council's second Local Transport Plan. The responses received were incorporated into the provisional second Local Transport Plan submitted in July 2005 (see section 3.2 of LTP2). It should be noted that at this time the Council had been informed by the Department for Transport that the annual funding allocation was likely to be in the region of £5 to £6 million (including maintenance). The revised method of calculating this allocation has since meant that only between £3 and £5 million (including maintenance) is likely to be available each year. Appendix A presents a copy of the letter sent by the Council and the responses by the statutory environmental consultees at this stage. The statutory consultees were asked to consider seven potential strands for the second Local Transport Plan, and these are set out below. A summary of the responses and how these comments have been incorporated in to the production of the Council's second Local Transport Plan is then presented.

park and ride

- 1 The continuation of the park and ride strategy from the first Local Transport Plan: to implement a ring of park and ride sites around Swindon, with particular focus over the five years of the second Local Transport Plan on a site at Commonhead and within the new Southern Development Area. At the time of this initial consultation, the completion of the Commonhead Park and Ride site was an important element, a "success criteria", in the Council's Corporate Plan. This Plan has since been superseded by the publication of *Swindon 2010* (July 2005) in which the park and ride strategy is not specifically mentioned.

bus strategy

- 2 The continuation of the bus strategy: working with developers and bus operators to enhance existing services, vehicles, bus stop facilities and information, and working to maximise the efficiency and use of Council-funded services.

urban cycle network

- 3 The completion of the urban cycle network: (also highlighted as a "success criteria" in the Council's Corporate Plan but carried forward in *Swindon 2010*). The Cycling Strategy will be revised and updated for the second Local Transport Plan, and will highlight what has been achieved, what new benchmarking and best practice has been published since it

was first written, and what new opportunities now exist to develop the cycling and bicycle parking facilities even further within the Borough of Swindon. The Council will continue to work with organisations such as Sustrans to develop new routes and facilities, and with schools in order to provide even more safety training and to encourage children to try cycling on safer trails.

North Swindon Transport Strategy

- 4 A major scheme bid (> £5m) is currently being investigated by the Council, and it is likely that it will be submitted during the second Local Transport Plan period. The bid is being developed for funding for the North Swindon Transport Strategy. This major scheme package developed from the need to address issues arising from the development of 9,000 houses currently under construction in the Northern Development Area which are expected to be completed by 2011. Significant contributions were negotiated from the developer as part of the planning agreement including towards the cost of creating a dual carriageway along Cricklade Road plus improvements to Moonrakers junction, and a new link road from Purton Road to Great Western Way. The appropriateness of these initial proposals is now being re-investigated in the light of more recent Government guidance. In addition to the accommodation of the Northern Development Area, some benefits would be derived from the fact that this infrastructure could help to accommodate the concentrated growth rates set out for the Principal Urban Areas in the South West Region set out in RPG10 and the emerging Regional Spatial Strategy. Without this major scheme only limited public transport improvement would be feasible in the Cricklade Road corridor, and congestion in North Swindon would increase substantially.

urban regeneration

- 5 In 1999, the Government's Urban Task Force Report recommended the creation of Urban Regeneration Companies to champion and stimulate new investment in areas of economic decline and to co-ordinate plans for their regeneration and redevelopment. Three pilot projects were set up in 1999, and in 2000, the Urban White Paper *Our towns and cities: the future* proposed the creation of a further twelve areas – one of which was in Swindon. Urban Regeneration Companies are local partnerships established by the relevant Local Authority and Regional Development Agency, working alongside English Partnerships and other local stakeholders including employers, amenity groups and community representatives. The Regeneration Framework describes the seven major project areas proposed which include development targets of 3,000 residential units, 100,000 square metres of offices and 100,000 square metres of retail. This work is already underway, and is likely to continue for at least 15 years.

Highways Agency schemes

- 6 The Highways Agency is committed to constructing the A419 Blunsdon bypass and A419 Commonhead junction alterations within the period of the second Local Transport Plan. The Council will be bidding for additional funding for amelioration work resulting from the de-trunking of the A419 in the area of the Blunsdon By-pass alterations during the second Local Transport Plan period.

Southern Development Area

- 7 Swindon's Southern Development Area was considered at the Structure Plan and Local Plan Inquiries, completed in 2005. Outline planning permission has now been granted and the section 106 agreement signed. It is anticipated that building will continue for approximately 15 years and will include 4,500 houses, a mix of employment and commercial uses, an important distributor road, and land set aside for the provision of a park and ride site close to junction 16 of the M4.

Other factors

- A vital element of the Council's long-term vision for the Borough is the emerging review of the Regional Spatial Strategy for the South West (RPG10) which seeks to continue with the concentration of growth at main urban areas (formerly *Principal Urban Areas*). Since the initial consultation with the Strategic Environmental statutory consultees, work has been continuing.
- Swindon Borough Council agreed with the recommendations of the Swindon Joint-Area Study into the future expansion of Swindon: that a level of 16,000 dwellings (2016 to 2026) would be in line with forecasts, and would therefore provide the most sustainable scale of development, but that this was dependent on the provision of infrastructure; and, that the preferred direction of growth was to the east of Swindon. In addition, it was assumed that some of this agreed development would be achieved as a result of regeneration, renewal and in the development of non-strategic sites. Further technical work to establish relative distribution, scales and phasing was also required.

1.25 The **Environment Agency** raised concerns about the potential impact of future developments, and the creation of new impermeable areas, on fluvial and surface water flooding. In particular, concerns were raised about the impact of development in areas within the 1 in 100 years flood plain. It was highlighted that no ground levels should be raised in order to maintain the flood water storage area available, and that schemes will not be permitted unless satisfactory compensatory works are undertaken. It was recommended that restrictions should be placed on developers concerning the discharge of surface water from new impermeable areas, and they should be required to accommodate excess water and control its release according to pre-set criteria. The Environment Agency's comments also set out standards for the treatment of existing water courses in the vicinity of any new

developments, and obtaining the correct legal permissions.

1.26 It should be noted that while there are no plans to build in the flood plain at the moment, a new road linking Purton Road to Great Western Way which forms part of the North Swindon Transport Strategy is likely to be proposed in the future. The preparation of the major scheme bid is therefore considering the costs and necessary compensatory works that could be associated with such a link road. In addition, any expansion to the east of Swindon after 2016 would certainly be within the flood plain and is therefore currently subject to scrutiny.

1.27 The **Countryside Agency** highlighted their interests in landscape, rural tranquillity, access to countryside, rural transport, access to services, and minimising social exclusion. Concern over lorry routing in rural areas was raised, and it will be seen that the second Local Transport Plan will continue the work started in the first Local Transport Plan to develop and agree with neighbouring authorities a regional freight map. In addition, Traffic Management initiatives may be implemented, for example new weight restrictions and speed limits throughout the Borough where required.

1.28 **English Heritage** noted two reports: the *Regional Strategy for the South West Environment 2004 to 2014* (2004) and the *Strategy for the Historic Environment in the South West* (2004), which saw the historic environment as a key strength for the region, and one that is fundamental to sustainable development. English Heritage also referred to research from a number of sources which has highlighted the value people put on their quality of life as a result of their local historical environment. This view is supported within the Community Strategy which seeks to promote tourism and other inward investment in order to promote a competitive and sustainable local economy.

1.29 The research also notes that many people felt excluded from a full appreciation of the historical environment. As part of the over-arching work to increase accessibility, Swindon's second Local Transport Plan will include work looking for opportunities to improve access to historical sites. There may be opportunities to make alterations to existing bus services, or to create better facilities and routes for walkers and cyclists who want to visit sites such as Groundwell Ridge (uncovered by housing developers in 1996), Barbury Castle and the Lydiard estate. The work recently completed to create a cycle route crossing the Groundwell Ridge site was warmly welcomed and it was hoped that the good relationship would now continue with other routes.

1.30 In addition, work will be undertaken to assess the impact of traffic on the Railway Village and to look for alternatives which may help to reduce the effect on the area.

1.31 Of great concern were the potential impacts of the actual process of building schemes: the loss of setting that could result, the reduction in tranquillity, increase in light pollution, and the potential negative impacts of

demolition of buildings. These issues were highlighted and re-iterated. English Heritage requested that the whole range of effects on the historic environment were considered, and that archaeological assessment was undertaken of sites where there were both scheduled and non-scheduled monuments, in conservation areas and historic parks and gardens. It was also highlighted that the proposed park and ride site at Commonhead was close to expected significant finds. If a nationally important site was found, it would have to remain *in-situ* in accordance with PPG16^β. Therefore, in order to ensure that appropriate care is taken of any archaeological remains, a planning condition has been placed on the development to control the site excavation, and requiring an independent company to oversee and report on the work.

1.32 English Nature considered particularly the potential impact on biodiversity, flora and fauna, and highlighted both the Sites of Interest for Nature Conservation in the Swindon area, as well as the non-statutory wildlife sites. They also highlighted the possibility of protected species (for example the great crested newt, as well as otters and water voles) and other important local habitats being affected by the development plans for Swindon. The second Local Transport Plan will therefore ensure advice is sought from the appropriate data-banks so that work (for example the development of the North Swindon Transport Strategy major scheme bid) is in sympathy with the emerging Swindon Biodiversity Action Plan.

1.33 It was also highlighted that English Nature has lodged formal objections to the proposed development of the Coate area of Swindon as set out in the proposed amendments to the Swindon and Wiltshire Structure Plan 2016 and the emerging revision to the Swindon Borough Council Local Plan. These objections are based on the grounds that the Swindon Principal Urban Area Study (2003) wrongly assessed the biodiversity and nature conservation importance of the Coate area, and failed to acknowledge the impact on Coate Water Site of Special Scientific Interest. It is felt the currently proposed level of development (including employment, university campus and housing) is too great.

1.34 In conclusion, English Nature stated that they support the Council's intention to promote cycling.

Stages C and D

1.35 The collation of the necessary data, consideration of the options, and the production of this Environmental Report has been undertaken. As noted

^β PPG16, Planning Policy Guidance 16: Archaeology and Planning sets out the government's policy on archaeological remains on land and how they should be preserved or recorded both in an urban setting and in the countryside. It gives advice on the handling of archaeological remains and discoveries through the development plan and development control systems, including the weight to be given to them in planning decisions and planning conditions.

earlier, the report outlines the extent of the likely positive and negative impacts on the environment of different strategies and elements of the second Local Transport Plan. The Environmental Report is now being made available to the general public and a wide variety of stakeholders as part of the mail-back survey currently underway, copies are also available to view at the Council's reception areas at the Civic Offices and Premier House, at the Central Reference Library and on the Council's web-pages. The responses received about the Environmental Report and the Council's provisional second Local Transport Plan will be taken into account in the production of the final version to be submitted to Government in March 2006.

Stage E

1.36 In March 2006, the final version of the Council's second Local Transport Plan will be submitted to Government. The Plan will include an outline of how the responses to the SEA process influenced and informed its development, setting out where/if alterations to the provision second Local Transport Plan were made as a result.

2: Environmental Baseline

- ❑ Review of relevant plans and programmes
- ❑ SEA objectives for LTP2
- ❑ Environmental baseline commentary
- ❑ Identification of environmental problems and opportunities
- ❑ Summary of SEA objectives, indicators and baseline data

This section summarises the finding of Stage A of the SEA process (see Table 1.6). It includes a review of any relevant plans and programmes; identifies the SEA objectives for LTP2; sets out the environmental baseline information and the likely trends into the future if there were to be no LTP2; and finally summarises current and future potential environmental problems and opportunities. Government Guidance (TAG Unit 2.11) recommends these should be carried out together to ensure all aspects are considered and feed into one another.

Review of Relevant Plans and Programmes

2.1 A review of all international, European, national, regional and local level plans and programmes has taken place in order to assess how each of these could influence the second Local Transport Plan. Appendix C presents the plans and programmes reviewed as part of the SEA process.

2.2 Having considered the relationship between the NATA objectives and the necessary SEA topics, work was undertaken to collate all the objectives and targets from other plans and programmes which it was felt would have relevance to the development and implementation of the second Local Transport Plan.

SEA Objectives

2.3 Based, therefore, on the requirements of the SEA and the topic areas that must be considered, the objectives and targets presented in Appendix C1, and on the development of the second Local Transport Plan, the following SEA objectives were developed. (These objectives have been drawn from a variety of existing sources.) Appendix D shows the compatibility matrix used to assess any conflict between the SEA and LTP objectives. Details of the objectives, indicators and baseline are presented in Table 2.5.

Objectives for Swindon Borough Council's second Local Transport Plan's Strategic Environmental Assessment

- ① **Contain/reduce air pollution to levels that do not damage the natural system.** (*Swindon Borough Local Plan 2011, 2003*)
- ② **Minimise the emission of greenhouse gases.** (*Swindon Borough Council's Environment Strategy, 2005; Swindon Strategic Partnership's Community Strategy for Swindon 2004 to 2010, 2004*)
- ③ **Improve the health and well-being of the population and to reduce inequalities in health.** (*Swindon Strategic Partnership's Community Strategy for Swindon 2004 to 2010, 2004; Tackling Health Inequalities: A Programme for Action, Department of Health, 2003.*)
- ④ **Reduce poverty and social exclusion, and close the gap between the most disadvantaged communities.** (*Swindon Strategic Partnership's Community Strategy for Swindon 2004 to 2010, 2004; Swindon Borough Council's Neighbourhood Renewal Strategy, 2004; South West Regional Assembly's integrated regional strategy for the South West 2004 to 2026 Just Connect, 2004*)
- ⑤ **Reduce crime and fear of crime.** (*Swindon 2010, 2005; Swindon Borough Council's Corporate Plan, 2004; Swindon Strategic Partnership's Neighbourhood Renewal Strategy, 2004; Swindon Crime and Drugs Reduction Strategy, 2005 to 2008, 2005*)
- ⑥ **Promote opportunities for recreation, art, culture and heritage.** (*Swindon 2010, 2005; Swindon Borough Council's Corporate Plan, 2004; Swindon Strategic Partnership's Community Strategy for Swindon 2004 to 2010, 2004*)
- ⑦ **Ensure noise from traffic does not exceed statutory guidelines.** (*European Directive on Environmental Noise, 2002/49/EC, 2002*)
- ⑧ **Protect and enhance biodiversity.** (*Swindon Borough Council's Biodiversity Action Plan, 2005; Wiltshire Structure Plan 2011, 2001; Swindon Borough Local Plan 2011, 2003*)
- ⑨ **Protect and enhance the historic and archaeological environment.** (*Wiltshire Structure Plan 2011, 2001; Swindon Borough Local Plan 2011, 2003*)
- ⑩ **Promote and enhance a high quality built environment.** (*Swindon 2010, 2005; Swindon Borough Council's Corporate Plan, 2004*)
- ⑪ **Promote vitality of the town centre.** (*Swindon 2010, 2005; Swindon Borough Council's Corporate Plan, 2004; Wiltshire Structure Plan 2011, 2001*)
- ⑫ **Encourage urban regeneration through promotion of the Swindon Principal Urban Area.** (*GOSW, Regional Planning Guidance for the South*)

West (RPG10) 2001; *Wiltshire and Swindon Structure Plan 2016*, 2003)

⑬ **Contain/reduce water and lands pollution to levels that do not damage the natural environment.** (Swindon Strategic Partnership's *Community Strategy for Swindon 2004 to 2010*, 2004; GOSW, *Regional Planning Guidance for the South West* (RPG10) 2001; *Swindon Borough Local Plan 2011*, 2003)

Environmental Baseline Commentary

Establishing the Existing Baseline Conditions and Likely Future Trends without Swindon Borough Council's second Local Transport Plan "do minimum" scenario

2.4 The Strategic Environmental Assessment is required to establish not only the base-line situation for a number of factors important to the local environment so that change over time can be monitored, but also to present an assessment of the likely future trends of these factors assuming no Local Transport Plan (but that all other relevant plans and programmes do continue). For the Borough of Swindon these plans and programmes include:

1 *The Future of Transport (Department for Transport White Paper, 2004)*

The Future of Transport sets out the government's vision for transport for the next 30 years as well as presenting a funding commitment until 2015.

2 *A New Deal for Transport: Better for Everyone (Department for the Environment, Transport and the Regions White Paper, 1988)*

A New Deal for Transport set out the need to extend choice in transport and secure mobility in a way that supports sustainable development.

3 *Transport Act 2000*

The *Transport Act 2000* provides a statutory basis for a number of measures set out in the White Paper: particularly concerning demand management and the requirement to produce a Bus Strategy.

4 *Transport 2010: The 10 Year Plan (Department for the Environment, Transport and the Regions, 2000)*

Transport 2010 set out five over-arching objectives for an integrated transport policy: environment, safety, economy, accessibility and integration.

5 *Policy Planning Guidance 13: Transport (Office of the Deputy Prime Minister, 2002)*

The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local levels with three specific aims.

6 *Road Traffic Reduction Act 1997*

The *Road Traffic Reduction Act 1997* gave the Secretary of State powers to set

and publish targets for road traffic reduction with the aim of reducing the adverse environmental, social and economic impacts of road traffic.

7 Traffic Management Act 2004

The Traffic Management Act 2004 placed a new duty on every local traffic authority to keep traffic moving on their roads, and to work with their neighbours for the benefit of the road network as a whole.

8 Choosing Health (Department of Health White Paper, 2004)

In broad terms, the White Paper suggests the development of programmes of action to address the health inequalities that are found across different geographical areas, between genders and different ethnic communities, and between different social and economic groups.

9 Regional Planning Guidance (RPG10) and the Regional Spatial Strategy

The Regional Planning Guidance (RPG10) for the South West was published by the Secretary of State in September 2001. It provides a regional spatial strategy within which local authority development plans and local transport plans in the South West should be prepared; sets out a broad strategy for the period to 2016 and beyond; and provides the spatial framework for other strategies and programmes.

RPG10 seeks to concentrate growth at main urban areas (formerly called Principal Urban Areas), therefore the Regional Assembly in partnership with the local authorities in the sub-regions has commissioned studies looking at the potential impact on not only transport but also water resources and flooding, health, education, biodiversity, landscape, environmental constraints, housing, employment, economy, and culture of a number of growth scenarios. The Council has considered the Swindon Joint-Area Study in to the future expansion of Swindon and accepts that a level of 16,000 dwellings (plus associated mixed land-uses), built between 2016 and 2026, would be in-line with forecasts and would therefore provide the most sustainable scale of development, and that the development should be to the east of Swindon. However, this development would be dependent on the provision of infrastructure and must be complemented by regeneration, renewal and non-strategic sites, and to further technical work to establish relative distribution, scales and phasing.

10 Regional Transport Strategy

RPG10 incorporates the Regional Transport Strategy within its chapter 8, and sets the regional context for transportation planning.

11 Regional Economic Strategy 2003

The Regional Economic Strategy for the period to 2012 contains objectives linked to RPG10 and the Regional Spatial Strategy.

12 Wiltshire and Swindon Structure Plan (2011 to 2016)

The Structure Plan sets out a strategic planning framework dealing with issues such as the scale, pattern and broad location of the housing, employment development across Swindon and Wiltshire, including the protection of the built and natural environment.

13 Swindon Borough Local Plan (2011)

The Swindon Borough Local Plan is currently being considered by the Inspector. This Plan sets out in more detail the location of the development identified in principle in the Structure Plan.

14 Supplementary Planning Guidance and Swindon Borough Council's Transport Requirements for Development

This document provides local guidance and standards for Swindon for prospective developers about methods of design and construction that will not only prove acceptable to the highway authority for adoption, but also covers many other areas such as traffic management and influencing traditional travel behaviour.

15 Urban Regeneration and The New Swindon Company

The New Swindon Company (established in 2002) is an Urban Regeneration Company created to revitalise the centre of Swindon. It is a partnership between the local authority, the Regional Development Agency and English Partnerships. The Regeneration Framework describes seven major project areas which include development targets of 3,000 residential units, 100,000 square metres of offices and 100,000 square metres of retail.

16 Swindon Strategic Partnership's Community Strategy (2004 to 2010)

Each local authority is required by government to have a community strategy to promote the social, economic and environmental well-being of its area.

17 Swindon 2010 (2005)

In 2005, the Council approved a 50-point pledge of actions and targets called Swindon 2010 – Taking control of our future. A number of these promises focus on transport, and many of the others have implications for transport provision and the operation of the network.

18 Swindon Borough Council's Corporate Environment Strategy (2004)

This strategy sets out a policy statement which will cover all directorates and will be reviewed every three years – to ensure the all Council policies, procedures and working practices minimise harm to the environment and also seek to improve quality of life and the environment.

19 Local Biodiversity Action Plan (BAP)

In 1992, one of the key outcomes for the signatories at the Rio Earth Summit was the requirement to produce Biodiversity Action Plans at both national and local

levels. The Convention on Biological Diversity required governments to take a wide range of actions to halt, and if possible reverse, the steady decline of species and their natural habitats. Following this agreement, the Countryside and Right of Way Act 2000 places a duty on ministers and government departments to have regard "...to the purpose of conserving biological diversity in accordance with the Convention", i.e. for Biodiversity Action Plans.

The Swindon Biodiversity Action Plan contains a great deal of general information about Swindon's wildlife and the issues it faces. It also contains more detailed information about particular species and habitats and a large number of specific actions and targets, as well as a vision and key generic issues effecting the Borough.

20 Local Air Quality Updating and Screening Report

During the early 1990s the Department of the Environment, Transport and the Regions determined the need for a framework for air quality control arising from increased concern about incidents of poor air quality. The seven pollutants for which objective standards were established are Benzene, 1,3 Butadiene, Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter and Sulphur Dioxide. Monitoring is undertaken throughout each year, and an annual report produced. If the standards are exceeded for a year an Air Quality Management Area must be declared and an action plan brought into force to address the issues causing the exceedences.

Baseline Summary

2.5 An overview of the existing baseline information has been presented below. This is followed by an extrapolation of the likely evolution of the environment in the Borough of Swindon without the implementation of the elements of the proposed second Local Transport Plan.

Air Quality

2.6 Air Quality in the Borough of Swindon is generally good. Since the annual reporting statutory requirement began in 2000, the data has not indicated a need to establish any Air Quality Management Areas in the Borough. Each year, Swindon Borough Council produces a Local Air Quality Progress Monitoring Report setting out both the monthly recorded levels and the annual mean values of seven pollutants (Benzene, 1,3 Butadiene, Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter and Sulphur Dioxide) at 18 sites around the Borough. Swindon Borough Council produced Stage 1, 2 and 3 reports but concluded at the third stage, that there was no likelihood of any of the objectives being exceeded, and consequently no Air Quality Management Areas were declared.

2.7 Potential risk has only arisen in very limited areas where occupied houses can be found within about a metre of a busy road. Table 2.1 presents the annual

average nitrogen dioxide levels recorded at the 18 sites across the Borough since 2000. It can be seen that only two sites have highlighted potential risk: Kingshill and the Bus Station. As a result of these figures, in-depth additional monitoring was undertaken at Kingshill for one year. Over that time the recorded levels returned to below the required threshold.

2.8 As part of the development work undertaken for the second Local Transport Plan, the Council has considered the options for tackling air quality issues related to transport. These are described in the provisional second Local Transport Plan currently presented on the Council's web-pages.

Table 2.1: Nitrogen Dioxide Annual Mean Values at Swindon Sites

	2000	2001	2002	2003	2004
1	33.1	30.73	30.77	32.55	31.12
2	22	20.8	19.57	19.85	18.53
3	21.9	22.53	23.64	23.49	23.34
4	23.7	21.63	20.91	20.13	22.45
5	42.1	35.64	42.44	35.15	36.71
6	36.9	32.27	30.3	32.72	33.96
7	24	24.74	24.37	23.6	22.97
8	32.8	27.19	25.64	29.95	34.33
9	20.2	19.63	22.54	20.06	19.33
10	33.6	32.46	30.12	34.95	35.3
11	26.9	24.85	23.89	25.7	23.93
12: Bus Station	43.8	44.57	42.38	48.07	47.43
13	34.2	31.14	33.87	35.49	36.03
14: Kingshill Road	48.7	43.33	42.05	47.53	38.56
15	44.5	36.43	39.32	35.03	32.39
16	39.7	31.52	28.81	34.69	32.4
17	34.2	34.37	32.55	35.86	29.03
18	41.3	34.8	37.52	38.22	34.44

*Note: Figures in **bold** indicate exceeding the threshold. The units are milli-grammes per cubic metre.*

It is likely that air quality in localised areas within the Borough will decline in the future principally as a result of the planned development for the Borough of Swindon which will generate more traffic and hence traffic-based pollution simply because there will be more people wishing to undertake their daily lives in the area. Development Control Officers in both planning and transport would, however, continue to work to ensure safe living environments; and the Council and other bodies would continue to work to raise awareness of the issues

surrounding air quality and the options available to individuals at the local level. Without the Council's second Local Transport Plan there would be no work to encourage more people to walk, cycle, use public transport and even car share in order to travel, and therefore the decline in air quality would not be arrested.

Biodiversity, Flora and Fauna

2.9 Overall, 87% of Swindon Borough's population live in urban Swindon, however the Borough's four rural wards cover 75% of the geographical area. The Borough retains 88 *Sites of Interest for Nature Conservation* (SINC) or *County Wildlife Sites* (CWS), and there are three designated *Sites of Special Scientific Interest* (SSSI): Coate Water, Hinton Parva and Quidhampton woods. These are highly protected and contain collections of plants and animals that are of national importance. The North Wessex Downs *Area of Outstanding Natural Beauty* (AONB) encompasses a large area in the south of Swindon, and a management plan is being prepared.

2.10 There is a UK BAP (Biodiversity Action Plan), an England Biodiversity Strategy, a South West BAP and a Wiltshire BAP. The Swindon BAP identifies that Swindon is an exceptional place in many ways not least because it is one of the fastest growing towns in Europe. Pressures on the urban fringe are intense, and it is surrounded by an exceptionally high quality landscape from a wildlife point of view.

2.11 Swindon Borough Council's Biodiversity Action Plan reports certain areas which are a stronghold for great crested newts. Details about great crested newts have become available through the planning process with developers being required to produce Environmental Impact Assessments.

2.12 It has also been noted in the Biodiversity Action Plan that the continued rapid growth in the Borough could be a significant threat to biodiversity unless the Council works closely with developers to take advantage of the opportunities such work can provide. The Council must consider the potential effect on biodiversity and other environmental issues of not only new infrastructure but also maintenance and the management of existing facilities.

new infrastructure

2.13 With regard to new schemes, for example those currently being investigated as part of Swindon's future major scheme bid, the Council will ensure that animals (badgers etc.) are able to continue to use any existing wildlife corridors that may have been dissected. To this end there will be tunnels, if required, incorporated into the road design with suitable protective fencing to ensure animals, amphibians etc. are not killed by traffic. Landscape enhancement will also be undertaken through planting, etc. As legally required, the Council will be producing an Environmental Impact Assessment that will identify issues of Biodiversity that will need to be addressed as part of the detailed design.

2.14 Swindon Borough Council is currently working with Wiltshire Wildlife Trust and English Nature and has produced a Swindon Biodiversity Action Plan (there is already a Wiltshire Biodiversity Action Plan). This Action Plan will then be incorporated as a Supplementary Planning Guidance. Once agreed, it will be possible to add a general statement to planning agreements to the effect "construction of new road /traffic schemes will where feasible take account of the Swindon Biodiversity action Plan".

maintenance and management

2.15 Swindon Borough Council undertakes the following approaches related to issues of biodiversity and maintenance:

- 1 to maintain flora in rural areas verge cutting is restricted where possible to a one metre swathe, this also ensures safety is maintained for both walkers and vehicle users. Verge conservation areas have been identified within the Borough and details agreed of when these areas can be cut to ensure the flora is able to flower and seed before cutting back. Full restriction on cutting back is also considered;
- 2 weed spray with herbicide is restricted to urban areas only and is not undertaken in the rural areas of the borough to ensure contamination of ground and water courses is kept to a minimum;
- 3 fauna is protected by identifying badger sets and restricting maintenance during the sensitive times indicated by specialists in this field. Runs are also provided beneath new roads where the need is identified by the local fauna;
- 4 trees and hedges are cut back, out of the bird nesting period as defined by the NSPB and tree protection orders are placed on highway trees where necessary to protect important species and mature and fine examples;
- 5 sustainable drainage design is actively encouraged on new developments to be maintained by creating swales for highway drainage which are excellent habitats for the natural flora and flora in the local area; and
- 6 wild seeding of the ancient Ridgeway path has been undertaken in sections and consideration is being given to extending this during the annual maintenance of the right of way.

It is likely that there will be negative impacts for biodiversity, flora and fauna in the future regardless of whether the Council's second Local Transport Plan were to be implemented. This decline will result principally from the committed and proposed developed for the Borough. The Development Control Officers and others within the Council will still work to ensure minimum damage to the environment and that appropriate work is undertaken first to identify species and them to develop schemes avoid their habitats or to re-home them to new sites. The strategy for maintenance and management of existing infrastructure has already been set out above.

Climatic Factors

2.16 The Community Strategy for Swindon clearly defines the theme to make Swindon a place that values its environment, and sets out the aim “to ensure that future generations are able to enjoy a richer and more diverse natural environment than they do today.” It goes on to state the need to work together to safeguard and enhance Swindon’s natural and built environment. One of the objectives is to improve the use of resources to limit all forms of pollution to land, water and air.

2.17 The change in environment and the climate have been reviewed in the Environment Agency’s report *the climate is changing: time to get ready* (March 2005), *The State of the South West 2004* (July 2004) and The South West Region Climate Impacts Scoping Study – *Warming to the Idea* (2003). These give details on the impacts of climate change on the region as described below. It reports how people will need to live with unavoidable changes in the weather as well as working to ensure future developments reduce or eliminate anthropogenic climate change. Table 2.2 shows the predicted changes by 2050’s.

Table 2.2: Weather forecast

Season	2050s
Spring	Warmer by 1.0 to 2.0 °C Precipitation totals similar to now
Summer	Warmer by 1.5 to 3.5 °C Drier by 15 to 30%
Autumn	Warmer by 1.5 to 3.0 °C Drier by 0 to 10%
Winter	Milder by 1.0 to 2.0 °C Wetter by 5 to 15%

2.18 Current projections for the UK suggest that in addition to the temperature increases and changes in rainfall with wetter winters with more storms and longer, drier and hotter summers, there is likely to be more flooding as dry soils are unable to absorb the heavier downpours, and as relative sea-levels rise.

2.19 The main environmental focus for the transport sector has been to reduce the carbon emissions that reduce air quality and contribute to climate change. This could mean by reducing the need to travel to facilities; by encouraging and facilitating sustainable forms of travel such as walking, cycling, using public transport and even car sharing, through the provision of infrastructure and through the work of school and employer travel plan advisors; and, through a commitment to sustainable design throughout all areas within the planning process.

2.20 The National Society for Clean Air has reported that "Road transport

accounts for 22% of total UK emissions of Carbon Dioxide (CO₂) - a major contributor to climate change. Voluntary EU agreements with motor manufacturers will reduce the CO₂ emissions from individual cars over the next few years but as traffic levels are predicted to continue increasing, road transport will continue to be a significant contributor to greenhouse gas emissions". With this in mind, Swindon Borough Council is working with the local community to tackle climate change.

2.21 Swindon Borough Council's *Climate Change Action Plan* works on two levels with two groups. A strategic group, steered by the Swindon Strategic Partnership (consisting of representatives from businesses, voluntary groups and Council Officers, the Primary Care Trust and the Police), and an action group, made up of community 'champions'. These groups meet regularly to discuss and action ways to raise the profile of the issues associated with climate change within the local community. Both the Travel Awareness Officer and the School Travel Plan Adviser contribute to this group.

2.22 The Travel Awareness Officer and School Travel Plan Adviser are working together to promote the production of work place and school Travel Plans, to encourage individuals within these specific communities to change to a more 'climate change friendly' mode of transport.

2.23 Businesses are asked where possible to encourage employees to swap the car for a more sustainable mode of transport. Where this is impractical businesses are encouraged to participate in other initiatives such as changing the fuel their fleet uses, setting up a car sharing scheme, or working towards becoming "carbon neutral" by planting trees on site to compensate for necessary car trips. This is particularly useful for public organisations such as hospitals and police stations that use motorised vehicles for operational commitments.

2.24 Schools are asked to participate by walking or cycling more. A number of initiatives and schemes are actioned on a regular basis both locally and nationally to help schools to achieve this. Those who have to travel greater distances are asked to use the bus, car-share or take advantage of "park and walk" locations. In addition to this, a selection of schools in the Borough are picked by the Local Agenda 21 team to attend a yearly Earth Summit Event. Year 5 pupils have the opportunity to participate in a number of workshops covering a wide range of environmental issues. This year's Earth Summit had a specific workshop on the issue of climate change, run by a representative from the Wiltshire Wildlife Trust.

Global climate change is principally due to the increased production of the six main "greenhouse" gases, particularly carbon dioxide, which results from burning fossil fuels for example in manufacturing processes, heating buildings, and using cars. Therefore, on a global scale, if the Council's second Local Transport Plan were not implemented, the pace of climate change would not be affected. However, locally, without the implementation of the second Local Transport Plan,

the lifestyle beliefs that currently result in jumping in the car to make short single-purpose trips would not be challenged.

Cultural Heritage

2.25 The topic area of cultural heritage includes elements such as the historic environment, archaeology and listed buildings within the area. Swindon Borough has three sites listed on the Register of Parks and Gardens of Special Historic Interest compiled by English Heritage: Lydiard Park, Queen's Park and Town Gardens Park. Lydiard Park is currently the subject of a development plan being prepared by consultants which seeks to highlight restoration requirements in the park, and provides a framework in which they could be achieved. Queens Park and Town Gardens were only added to the Register in 2001, and additional sites may be registered in future, as knowledge and survey work continues.

2.26 There are 642 entries on Government's List of Buildings of Special Architectural or Historic Interest in the Borough of Swindon (places such as the Railway Village are counted as one entry but include very many properties) This covers well over 1,000 buildings, because some entries on the list encompass more than one building, and because buildings in the grounds of a listed building become included. Supplementary Planning Guidance has been produced which gives detailed advice in relation to development proposals affecting Listed Buildings.

2.27 Throughout the Borough there are a number of existing buildings, structures and facades that, whilst they may not warrant listing or have the protection conferred by being a conservation area, nonetheless have local historic or architectural importance and as such are protected by a policy with the Local Plan.

Over the next 15 years and onwards, the greatest impact on cultural heritage is likely to result from the urban regeneration of the town centre. This should be a positive effect. The greatest impact on archaeology is likely to result from the road works planned by the Highways Agency at Commonhead and Blunsdon on the A419, and the impact of the extension on Swindon as proposed in the emerging Regional Spatial Strategy which has indicated that up to 20,000 houses plus associated mixed development could be placed on the eastern edge of Swindon between 2016 and 2026. This impact could well be argued as negative. If the Council's second Local Transport Plan were not implemented, the relative effect would be small.

Human Health

2.28 The topic area of human health is perhaps the broadest of the SEA topics. Under this heading, the NATA sub-objectives; noise, local air quality, physical fitness, community severance, access to transport (accessibility), security and accidents (road safety) have been assessed to see how they are effected by the Local Transport Plan (2006 to 2011).

noise

2.29 In relation to noise control it is more effective to prevent a problem occurring rather than having to implement corrective measures retrospectively. Protection against noise in the construction, design and layout of residential developments is essential to ensure that existing or future residents are not subjected to unacceptable levels of noise in their own homes. Maximum noise levels and a continuous weighted sound pressure level are set for bedrooms, living rooms and gardens. For urban locations, consideration must also be given to a mix of traffic noise, voices of pedestrians and entertainment noise. Generally a “worst case scenario” noise survey is useful.

It is likely that there will be significant increases in noise levels in the future resulting, principally, from the committed and proposed large-scale development for the Borough. The Council’s Environmental Monitoring Team will still issue licences to control noise levels related to events and businesses, but traffic-related noise would become more prevalent. Even if levels did not exceed the acceptable threshold, the quantity of traffic would increase and the peak periods extend. Without the second Local Transport Plan fewer people might be persuaded out of their cars and on to buses therefore adding to the general increase in road noise.

local air quality

2.30 Issues relating to air quality have already been covered above.

physical fitness

2.31 Physical activity is one of the cornerstones of a healthy lifestyle. Regular physical activity benefits many aspects of health whether it is through participation in sport, play, physical education, walking, cycling, or exercise. However, six out of 10 men and seven out of 10 women in England are not active enough to benefit their health. Public health professionals can do a great deal to help make opportunities for physical activity more accessible to all sections of society. There is evidence that general activity levels are decreasing. For example between 1975-6 and 1999-2001 total miles travelled per year on foot and miles travelled by bicycle each fell by 26% in England (Dept of Health, 2004). The national census data provided in Table 2.3 gives an indication of the possible scale of health problem within the Borough.

Table 2.3: National Census Data

	Swindon actual figures	England actual figures
Population	180,061	49,138,831
People assessing general health as 'not good'	13,780 (7.7%)	4,435,876 (9%)
% population aged 75+	6.2%	7.5%

2.32 Swindon has the highest incidence of Coronary Heart Disease in the South West. In the 2001 census, Penhill and Pinehurst wards were the highest ranking of all wards within the Borough in terms of ill health. The Government's Index of Multiple Deprivation also reports Whitworth (Penhill and Pinehurst) Ward is ranked in the top 10%, and Parks within the top 20% of deprived wards nationally. The higher than average percentage of young people and those over 50 years old will create a requirement for more targeted physical activity opportunities. Physical Activity Development Alliance (PADAL) will ensure a co-ordinated approach between service providers by implementing a Physical Activity Strategy. The results of the 2001 census data for Swindon indicated that 21% of people assessing they had a 'limited long term illness' 11% of people indicating their general health was 'not good'.

2.33 In November 2004, the Department for Health published *Choosing Health*. This White Paper set out aims to make it easier for people to change their lifestyle and become healthier. In very broad terms, the White Paper suggested development of programmes of action to address the inequalities that are found across different geographical areas, between genders and different ethnic communities, and between different social and economic groups. Six priorities for action were set out: reducing the number of people who smoke, reducing obesity and improving diet and nutrition, increasing exercise, encouraging and supporting sensible drinking, improving sexual health, and improving mental health. A national target was set for the year 2010 to reduce health inequalities in health outcomes by 10% as measured by infant mortality or life expectancy.

2.34 As a result of this White Paper, Swindon Primary Care Trust (PCT) and Swindon Borough Council have developed an action plan to tackle health inequalities over the next three years in the area covered by the PCT. One of the initiatives to arise from this work is *Active Swindon*. This is a £½ million project funded by Sports England and a successful lottery bid run jointly by Swindon Borough Council's Recreation Services and the PCT. The purpose of the project is to increase the physical activity levels of residents within the Borough of Swindon, Shrivenham and part of North Wiltshire. The local target for Swindon has been set within this action plan of achieving 35% of the population exercising five times a week by 2006. Without the second Local Transport Plan, success might not be as significant as it could have been.

2.35 One of the key ways in which people can be more physically active is through walking and cycling as part of everyday life. Many aspects of transport policy support a shift away from motorised transport and towards walking and cycling. The purpose of a travel plan is to help organisations such as schools, businesses and others develop local measures to reduce their reliance on the car. The second Local Transport Plan will be supporting and working in partnership with the *Active Swindon* work, as well as with the Neighbourhood Renewal Strategy initiatives, pooling resources and funding to help encourage greater levels of physical activity.

Physical activity is being promoted for health reasons by a number of bodies and groups outside the Local Transport Plan process. Therefore, if the Council's second Local Transport Plan were not implemented, there is still likely to be some improvement in the overall levels of fitness in the Borough albeit not as much as could have been achieved.

Concern over health levels nationally has resulted in work being undertaken in Swindon and Wiltshire PCT, as well as the Swindon and Marlborough National Health Trust, to identify areas of health inequalities and to develop action plans to tackle them. While this work will continue, with positive impacts, it is likely that the benefits would not be as great as they could be if the second Local Transport Plan were not implemented.

One area of concern is the trend towards taking children to and from school by car rather than allowing them to walk, cycle or catch public transport. This unhealthy approach to travel influences the decisions these individuals will make when they are older concerning how to travel not only to work, but also to social events, and for the enjoyment of exercise. The majority of the work undertaken to challenge these views and raise awareness of alternatives is carried out by the Council within the Local Transport Plan process. Without the second Local Transport Plan the long term benefits of helping to tackle obesity and related disorders including diabetes and coronary heart disease would be lost.

community severance

2.36 The impact of community severance is well established in transport planning literature. Community severance is caused by major roads being built through a community, with a proportion of local residents being cut off not only from safe and easy access to shops, schools and other facilities but also from their social network. There is some evidence that low levels of social support can lead to higher mortality rates. Increasing amounts of traffic in an area also reduce the use of residential streets as play areas for children.

2.37 Guidance on the New Approach to Appraisal presents community severance by roads as one of the three subsidiary objectives of accessibility. The community severance objective is concerned with the role of roads as a 'barrier' between parts of a community, and the resulting distortion of journey patterns, especially for the aged, disabled and children. In this context, accessibility related to non-motorised travel. The accessibility work will pick up any areas which have clear access problems as a result of community severance. The Blunsdon bypass is one project which will have significant effects on connecting a community that is at present split by a busy 'A' road. Once the new bypass has been completed further work will be required to give back some priority to the pedestrians.

accessibility

2.38 Accessibility - ease of access to education, employment, health care and

healthy food as well as to social, recreational, cultural and physical activities are important elements within a good quality of life. Accessibility planning and the accessibility framework are core areas of work within the second Local Transport Plan. Section 4.4 in LTP sets out the work in greater detail, identifying not only the areas that are not easily accessible, for example by public transport, but also identifying what schemes and initiatives will be undertaken during the second Local Transport Plan period to try to address the problems. Progress will be monitored using a set of indicators similar to the one already existing for the first Local Transport Plan (2001 to 2006): the percentage of rural households within 800 metres of an hourly or better bus service. Chapter 6 in LTP2 lists the new accessibility indicators and proposed targets and trajectories.

road safety

2.39 The total number of people killed or seriously injured on roads in the authority continues to fall with the existing level being at 71 in 2003.

The trends to date will be reviewed and the effect of the second Local Transport Plan assessed in relation to the 2011 targets for reduction in number and severity of casualties at road accidents.

Swindon's road safety record has improved over the life of the first Local Transport Plan (2001 to 2006). This is the result not only of the engineering work undertaken by the Council for example to slow traffic, but also the result of the long-term education of primary school children to raise awareness of road safety issues and how to travel safely. While this work would continue as it is funded using the Council's revenue budget, and it improving road safety is one of the 50 promises highlighted in *Swindon 2010*, it would not be as effective as when supported by infrastructure improvements generated by the safer routes to school programme and the schools' challenge bid programme related to school travel plans.

Development Control in both planning and transport would continue work with developers to negotiate both contributions towards sustainable travel initiatives and infrastructure and to ensure new developments and extended areas were designed to safe standards. Within transport, the Development Control Officers would continue to work to apply the Council's policies concerning parking and the provision of walking and cycling routes within developments, etc. The Council's planning Development Control would continue to apply the Council's policies concerning sustainable design. However, all second Local Transport Plans have an over-arching aim to "improving access to jobs and services, particularly for those most in need, in ways that are sustainable" (Full Guidance on Local Transport Plans Second Edition, December 2004), and goes on to suggest actions to improve public transport and reduce problems of congestion, pollution and safety. Without the second Local Transport Plan, this work would not be so focussed.

Landscape

2.40 The topic area of landscape include consideration of townscape and public realm. The landscape character areas include: Thames Vale, Vale of White Horse, Wroughton Vale, Scarp, Down Plains, High Downs, Mid-Vale Ridge, Lydiard Ridge. It has been argued that if Swindon is to grow after 2016, sustainable development may require additional land to be built on. The landscape characteristics of the Borough are presented in the Swindon Borough Local Plan 2011. Important considerations must be both the loss of open space for recreation and exercise both within the town of Swindon and on the important fringe areas.

2.41 The townscape, and public realm, will be a major element of the regeneration of the urban centre. The existing townscape, particularly within the centre of Swindon, has been identified as an area for improvement. The New Swindon Company looks to incorporate good quality design and architecture, valuing heritage and ensuring streets and public areas are open, safe and attractive with more trees and public art, making an immediate positive impression. Ensuring the town is legible to pedestrians arriving both by bus and to the town centre car-parks, is accessible on foot and by bicycle, and has safe and secure parking for bicycles is an important element of the schemes identified in LTP2.

The main impact on landscape and townscape over the second Local Transport Plan period is likely to be the result of urban regeneration, the Neighbourhood Renewal schemes, the European funded Streets for Living project, and building associated with the Southern Development Area. While the former might be seen as a positive impact, the latter might be argued by some as negative. Significant investment in highways maintenance to improve the condition of roads and footways has been set as one of the 50 promises in *Swindon 2010*, and so will continue. If the Council's second Local Transport Plan were not implemented, it is likely there would be no change (either improvement or reduction) in the landscape or townscape of the Borough of Swindon as a result.

Material Assets

2.42 The issue of material assets is linked to the NATA sub-objectives: public accounts, business users and providers, consumer users. Fuel, land and property and mineral resources have been taken as the main topics for these objectives. In the context of Swindon Borough Council's second Local Transport Plan, the consideration of material assets includes the maintenance of the highway (roads, footways, cycle-ways and bridges, etc) and potentially the creation of a new bus station "Exchange" as part of the urban regeneration framework of The New Swindon Company.

2.43 Swindon Borough Council's second Local Transport Plan contains three areas which relate to material assets and their management: the Maintenance Strategy; the strategy arising from the requirements of the Traffic Management

Act 2004; and the Transport Asset Management Plan Statement. These are all presented in section 4.1 of the provisional second Local Transport Plan.

If the Council's second Local Transport Plan were not implemented, it is possible that the new bus station "exchange" might still be developed and, as long as the funding for maintenance continued, the work would continue as there are specific best value performance indicators relating to maintenance which have to be reported and monitored each year, and which form a small part of the CPA score for the Council as a whole.

land (brownfield and greenfield) and property

2.44 Swindon's comparatively recent growth is the major factor behind a general deficit of large "brownfield" and urban redevelopment opportunities in the town. However, Swindon continues to grow and to attract people. In order to satisfy these continuing demands, large strategic releases of land have been determined as a viable and realistic way to accommodate growth.

2.45 The Structure Plan provides a context for this issue by allocating 23,000 dwellings and 260 hectares of employment land to Swindon Borough for the period 1991 – 2011. The policies and proposals of the Local Plan encourage development within Swindon's urban area. During the period of the second Local Plan (2006 to 2011) it is likely that the Northern Development Area will be completed and a further 4,500 will be under construction in the Southern Development Area. A further 2,300 dwellings are anticipated within the existing urban area. It is likely that this growth will be supplemented by suitable sites on both previously used land and buildings, and a greenfield site at Coate, which it is anticipated will provide a balance of dwellings required to meet the acknowledged shortfall to 2011. The 2,500 dwellings allocated in the south of Swindon at Coate could start construction in 2006. The housing will be accompanied by 280 hectares of employment land at Coate, the Southern Development Area, and the "Triangle" to the east.

If the Council's second Local Transport Plan were not implemented, there is unlikely to be any noticeable impact on the use of brownfield and greenfield land for development. Many other policies are already in effect which will have a much greater impact.

mineral resources

2.46 Within the Wiltshire Structure Plan, minerals are an important element as there is sand and gravel extraction as well as chalk pits and some stone quarrying in the area. However, within Swindon the impact is far less. However, the Council must still adhere to the policies set out in the Structure Plan, and is still responsible for ensuring that the need for minerals is met whilst achieving the best balance of social, environmental and economic costs. Wiltshire County Council and Swindon Borough Council provide a framework for planning decisions.

2.47 Additional rail aggregates depot facilities in Wiltshire and the Borough of Swindon could reduce the amount of mineral imported/ exported by road, and enable an increase in the amount of aggregates imported by rail potentially reducing the pressure for the extraction of sand and gravel from more environmentally sensitive parts of the Plan Area.

If the Council's second Local Transport Plan were not implemented, it is unlikely that there will be any changes to mineral resources of the area or the policies, already in place, for managing them.

Population

2.48 The population of Swindon and the potential increases in the future have already been outlined in the introduction.

In the future, population numbers, age demographics, schools, old people, unemployed, etc continue as currently predicted, there could be a marked increase in the amount of traffic on the road network, increased journey times and journey time variability and a possible increase in road traffic accidents. Without the second Local Transport Plan less targeted work would be undertaken aiming to reduce the impact on the roads, and hence the environment, of such growth.

Soil

2.49 The document *Countryside – Environmental Quality and Economic and Social Development* PPG7 (1997) states, “within the principles of sustainable development, the best and most versatile agricultural land should be protected as a national resource for future generations”. In the Borough of Swindon the greatest impact on land and soil quality will result from the committed and potential development of the town both to the end of the Structure Plan period, and after 2016 when the new Regional Spatial Strategy will indicate large scale development must be accommodated.

If the Council's second Local Transport Plan were not implemented, it is not likely that any changes to soil quality would be detected as a result.

Water

2.50 Concerns for water relate not only to rivers and water courses, but also to flooding, drainage, sewerage, water pollution and standing water.

2.51 Standing open water is identified as an important resource in Swindon and nationally. It is known that many of these water bodies are home to some of the country's rarest protected species. Ponds in the Southern Development Area are extremely important for Great Crested Newts and other amphibians. Some sections of the old Wilts and Berks canal support the water vole which is Britain's fastest declining mammal. Both water voles and great crested newts are important on a European scale.

2.52 Perhaps the most notable area of standing open water within Swindon Borough is Coate Water SSSI. This old canal water supply reservoir to the south east of Swindon has been designated as a protected site owing to its national importance for dragonflies (at least 15 species have been recorded here). Other areas are also important for wildlife on a Borough-level; for instance, Lydiard Park, Swindon Sewage Treatment Work lagoons and Rushy Platt are all County Wildlife Sites and support protected species such as water vole and great crested newts.

2.53 Other areas are not specially designated but are very important locally. Given the dense urban nature of Swindon, these areas are especially important to the local residents for all sorts of activities. Peatmoor Lagoon, Shaftsbury Avenue, Liden Lagoon, to name but a few, form the focus of several park areas and are important for fishing, dog-walking, duck-feeding and other recreation activities.

2.54 Concern over the likely potential impact of increased heavy rainfall resulting from longer-term climate change and the treatment of floodwaters must be considered alongside the water provision and sewerage requirements identified for the large-scale urban extension of Swindon. To accommodate the requirements of the emerging Regional Spatial Strategy and RPG10 it has been identified that an additional reservoir site to be built, outside the Borough, with all the consequent environmental impacts associated with such a large engineering scheme, and that the urban extension itself would be in a flood plain area.

The greatest impact on water in the future will result from development in the Southern Development Area and potentially at Coate. It might be argued that water quality could also be affected by the development committed and proposed for the Borough of Swindon, both in terms of pollution carried in run-off and in terms of the creation of additional impermeable layers, covering natural water courses and building in flood plain areas which could effect the storage of flood water in some circumstances.

Swindon Borough Council undertakes regular sampling of private water supplies to ensure that they meet the required standards for microbiological and chemical content, and will continue to enforce legal requirements.

The implementation of the second Local Transport Plan is unlikely to have any significant impact on the provision on standing water in the Borough, or on the availability of floodplain or the treatment of sewerage.

Summary of Environmental Problems and Opportunities

2.55 As a result of collating the base-line information and considering the likely future trends, a number of problems and opportunities have been identified. These have been shown in Table 2.4. Additional issues may also be highlighted

during the consultation associated with the development of the second Local Transport Plan, and these will be incorporated in to the final report where appropriate.

2.56 Over the period of the second Local Transport Plan (2006 to 2011) the most significant likely impacts on the environment of the Borough of Swindon will result from the continuation of the committed and planned development as set out in the Structure Plan and the Local Plan.

2.57 The Regional Planning Guidance for the South West (RPG10), published in 2001, sets out the challenge of delivering an average 20,200 additional dwellings per year across the South West, for each year from 1996 to 2016. Of these, 3,000 per year have been allocated to Wiltshire and Swindon. The Swindon Structure Plan sets out commitments to accommodate 26,000 new dwellings between 1996 and 2016. In total, 9,000 houses will be completed in the Northern Development Area by 2011, and a further 4,500 will be under construction in the Southern Development Area. A further 2,300 dwellings are anticipated within the existing urban area. In addition, 2,500 dwellings have been allocated in the south of Swindon at Coate which could start construction in 2006. The housing will be accompanied by 280 hectares of employment land at Coate, the Southern Development Area, and the "Triangle" to the east.

2.58 Post 2011, the most significant factor will be the determination of the emerging Regional Spatial Strategy and RPG10 which could result in up to 24,000 new dwellings, plus associated employment, schools, shops, etc, being built in Swindon. (Greater detail concerning the research leading up to the decisions made can be found in the provisional second Local Transport Plan on the Council's web-pages.) Research has suggested that a large urban-expansion could be accommodated with the least environmental damage to the east of Swindon, but that the ultimate size of the development must be dependant on the provision of facilities, for example related to transport, funded from sources in addition to the limited funds available from Local Transport Plan capital allocations.

2.59 It has been calculated that the current road network has a capacity of 60,000 vehicles in the morning peak period (traffic at present is approximately 50,000 vehicles), and that the current spare capacity would be filled by 2016 if no schemes or initiatives are undertaken to encourage greater mode-shift away from the car, or to reduce the desire to travel during the morning peak. This calculation has assumed that all the committed and planned development as outlined in the Local Plan is completed to the current anticipated timescales. It may be assumed, therefore, that there may be some localised exceedences of the air quality threshold levels, and that an Air Quality Management Area may have to be declared.

2.60 It might be assumed that the work of the local bus operators would continue and so patronage would continue to rise and relieve some of the pressure on the

road network, but without the active involvement and work of the Local Transport Plan there would be no further on-street improvement such as new bus priority measures and bus stop improvements. A new bus station may be implemented as this has become an important element of the urban development framework being promoted by The New Swindon Company.

2.61 The town centre urban regeneration programme aims to increase economic activity and the quality of the area. One outcome of this regeneration will be more shoppers, employees and visitors to the town.

Table 2.4: Environmental Problems and Opportunities

Problems
<ol style="list-style-type: none"> 1. Potential Air Quality Management Area within urban area. 2. Pollution impacts of congestion hotspots. 3. Development pressure for expansion of existing urban area. 4. Regeneration of the town centre looks to increase parking against the existing LTP policy.
Opportunities
<ol style="list-style-type: none"> 1. To develop new sustainable communities with provision for non-motorised transport high on the priority. 2. Implement an improved urban environment that will be an economic and environmental success. 3. High proportion of urban living could enable good modal transferral to cycling and walking. 4. Recognition of climate change locally and nationally. 5. Investment or regeneration of deprived areas.

Summary of SEA Objectives, Indicators and Baseline Data

2.62 Table 2.5 presents the proposed SEA objectives alongside the indicators that have been identified and the baseline data.

Table 2.5: SEA Objectives, Indicators and Baseline

Objective	SEA topic	Indicator	Baseline
① Contain/reduce air pollution to levels that do not damage the natural system.	AIR	Number of Air Quality Management Areas	0
② Minimise the emission of greenhouse gases.	CLIMATIC FACTORS	% of road-side sites meeting air quality regulations for nitrogen dioxide	100% (18 out of 18)
③ Improve the health and well-being of the population and to reduce inequalities in health.	POPULATION AND HUMAN HEALTH	% of all households within 60 minutes travel time to a hospital by public transport.	Data to be supplied annual by DfT in 2005

		% of all households within 30 minutes travel time to a hospital by public transport.	“
		% of households without a car within 60 minutes travel time to a hospital by public transport.	“
		% of households without a car within 30 minutes travel time to a hospital by public transport.	“
		% of all households within 30 minutes travel time to a GP surgery by public transport.	“
		% of all households within 15 minutes travel time to a GP surgery by public transport.	“
		% of households without a car within 30 minutes travel time to a GP surgery by public transport.	“
		% of households without a car within 15 minutes travel time to a GP surgery by public transport.	“
④ Reduce poverty and social exclusion, and close the gap between the most disadvantaged communities.	POPULATION AND HUMAN HEALTH	% of all households within 30 minutes travel time of a major centre by public transport.	“
		% of all households within 15 minutes travel time of a major centre by public transport.	“
		% of households without a car within 30 minutes travel time of a major centre by public transport.	“
		% of households without a car within 15 minutes travel time of a major centre by public transport.	“

⑤ Reduce crime and fear of crime.	POPULATION AND HUMAN HEALTH	BV127b Violent offences committed in public places per 1,000 population.	2003/4 data: 7.8
⑥ Promote opportunities for recreation, art, culture and heritage.	POPULATION AND HUMAN HEALTH	Area of public and private open space lost since implementation of LTP2.	base-line: 0
		BV117 The number of physical visits per 1000 population to public library premises.	2003/4 data: 5,738 2004/5 data: 6,054
⑦ Reduce the number of people annoyed by noise.	POPULATION AND HUMAN HEALTH	The percentage of people who feel noise from transport is a problem in their area.	34%
⑧ Protect and enhance biodiversity.	BIODIVERSITY, FLORA, FAUNA AND SOIL	The Government has a Public Service Agreement that a target of 95% of SSSI land is to be deemed 'favourable' or in 'recovering' condition by 2010.	1. Coate Water 'recovering' 25.7% 2. Burderop Wood 'unfavourable no change' 100% 3. Old Town Railway cutting 'favourable' 100% 4. Okus Quarry 'recovering' 100% 5. Great Quarry "favourable" 39.13%
⑨ Protect and enhance the historic and archaeological environment.	CULTURAL HERITAGE	Number of listed buildings or listed features lost through development since implementation of LTP2	base-line: 0
		Number of archaeological remains lost through development since implementation of LTP2	base-line: 0
⑩ Promote and enhance a high quality built environment.	LANDSCAPE AND TOWNSCAPE	BVPI 89 The percentage of people satisfied with the cleanliness standard in their area.	2003/4 data: 17%
⑪ Promote vitality of the town centre.	MATERIAL ASSETS	Negotiate new Bus Station as part of town centre redevelopment.	n/a
⑫ Encourage urban	MATERIAL	The percentage roads	<u>2004/5:</u> <u>2010/2011</u>

regeneration through promotion of the Swindon Principal Urban Area.	ASSETS	with less than a year of life: BV 96, 97a, 97b, 187 (footway)	20.1% 3.7% 13.8% 25.1%	13% 10.5% 15% 18%
⑬ Contain/reduce water and lands pollution to levels that do not damage the natural environment.	WATER AND SOIL	Chemical water quality: % grade B or above	2005 – 24.6%	
		Biological water quality: % grade B or above	2005 – 52.9%	

3: Analysis of Transport Strategy Options and Environmental Assessment

- ❑ Summary of transport options considered
- ❑ Preferred strategy
- ❑ Proposed mitigation work alongside the preferred strategy
- ❑ Monitoring the environmental effects of the second Local Transport Plan

This section briefly outlines the alternative strategies that were considered and presents a summary of the interpretation. The preferred strategy is presented highlighting all the other factors which have had to be considered in its development. Finally, the proposed mitigation measures developed for the preferred strategy and the proposed monitoring are presented.

Introduction

3.1 Before considering the transport options reviewed in the development of the second Local Transport Plan it is important to re-iterate the constraining effect which resources had on the whole process. While it was possible to consider the environmental impacts of different measures and initiatives, they had to be tempered by a realistic appreciation of what it would be possible to afford alongside what previous Local Transport Plan experience suggests it would be possible to deliver.

3.2 A number of alternatives were considered during the development of Swindon Borough Council's provisional second Local Transport Plan covering to varying degrees the alternatives for increasing supply or managing demand. Increasing road network capacity can be achieved by two methods which can be used in combination: building more roads and larger junctions, and/or by increasing junction capacity by increasing the efficiency of the traffic getting through the junction. Increasing junction efficiency can be achieved using "high-tech" intelligent transport measures such as selective vehicle detection, traffic signals, variable speed limits, variable message signs, enforcement of bus lanes and parking restrictions in order to keep the roads clear for moving traffic and

buses. Low-tech solutions, such as the use of better signing, and lane and junction markings, can offer interim, good value for money solutions which can be implemented in a much shorter time-scale than building larger roads or junctions. Managing demand can be undertaken in two principle ways: economic or legal controls, or by raising awareness both of the damage that certain travel choices can have on the environment, and by publicizing and promoting the alternative choices available and the personal health as well as economic business case benefits of trying these alternatives. Financial demand management measures include road pricing or congestion charging, and limiting the number of parking spaces available, and the managing the cost associated with parking in them (this could be a shopping centres, private businesses as well as residents' parking zones and on and off-street parking locations).

3.3 The following five strategies were considered, the fifth strategy being the preferred strategy developed after the assessment of the previous options and after taking in to account other important local issues:

0: No Local Transport Plan: “do minimum”;

1: increasing network capacity for private vehicles: building more road space plus additional roads, enlarging junctions and increasing junction efficiency through the use of Urban Traffic Management Control computer systems, plus rationalising road signage and implementing variable message signs for car parks;

2: enhancing and improving bus travel: providing bus priority measures, real-time and other well-placed, accurate and accessible service information, providing much extended non-profit/tendered services, widening the scope of concessionary fares; working with bus operators to ensure high quality, clean and reliable services, and working with housing and other developers to ensure new bus services are paid for and provided as a result of planning agreements, plus working to promote sustainable travel options and the benefits of active travel;

3: demand management: continuing the current policies to reduce the number of long stay parking spaces in the town centre, to increase parking charges at town centre location at a rate of **3%** per year, continue the extension of residents parking zones and the removal of remaining free-on-street parking in the central area, in the longer term consideration would also be given to the implementation of parking charges at businesses which currently have free parking for staff and visitors, and of a congestion charge to enter the urban area; and

4: raising awareness and promotion of sustainable travel options: working with interest groups, employers, schools and health providers to promote the benefits of active travel, ensuring barriers to trying alternatives are removed for example the creation of enhanced and extended walking and cycling routes, lighting, signing etc, alongside individualised marketing campaigns,

and financial incentives to encourage modal shift, this work would be supported by land-use planning and planning agreement obligations and conditions.

5: preferred strategy – combination of elements: the preferred strategy has had to take into account the over-riding constraints of funding allocation for the Local Transport Plan in Swindon alongside the need to accommodate the committed and potential growth in Swindon of population, employment, retail and other facilities whilst minimising the impact on the environment. It was also clear from the work undertaken that many of the initiatives identified as “most beneficial” to achieve SEA objectives were not within the control of the local authority, or could not be afforded as revenue funding rather than capital was required. The preferred strategy taken forward for Swindon Borough Council’s second Local Transport Plan (2006 to 2011) therefore places strong emphasis on encouraging sustainable travel alternatives: raising awareness, removing physical barriers and ensuring new developments do not build in barriers, etc; as well as working closely with the bus operators to implement more bus priority and introduce real-time information as well as introducing demand management measures in order to influence travel choices and to ensure the existing road network operates as efficiently as possible.

3.4 Table 3.1 presents a summary of the analysis undertaken. In this table, the potential future year (2011) scenarios are compared to the current situation (2005). It is important to note that the table does not represent a comparison of scenarios **1** to **5** against scenario **0** all in 2011. Appendix B presents a more detailed account of the assessment of the potential environmental impacts of each of the elements within the strategy options considered. The potential effects are reported in terms of a seven-point scale shown below.

impact

- - - large adverse
- - moderate adverse
- slight adverse
- 0** neutral
- +** slight beneficial
- ++** moderate beneficial
- +++** large beneficial

Table 3.1: Summary of the environmental effects of the second Local Transport Plan options - comparing 2011 with 2005 (not shown)

	no second LTP	1	2	3	4	5
AIR QUALITY	-	-	+	+	++	○
BIODIVERSITY	--	-	○	○	○	--
CLIMATIC FACTORS	--	-	+	+	+	--
CULTURAL HERITAGE	○	○	+	○	+	○
HUMAN HEALTH: safety	-	○	○	○	+	+
HUMAN HEALTH: physical fitness	+	-	+	+	++	+
HUMAN HEALTH: noise	-	-	+	+	+	-
LANDSCAPE: rural	-	○	○	○	○	-
LANDSCAPE: townscape	+	○	+	+	+	+
MATERIAL ASSETS	-	+	+	+	○	+
POPULATION: accessibility	-	+	+	-	+	+
SOIL	○	-	○	○	○	○
WATER	-	-	○	○	○	-

Note: It has been assumed that all other plans and programmes underway would continue and that only the potential second Local Transport Plan elements change.

It should also be noted that no strategic environmental assessment has yet been undertaken for the North Swindon Transport Strategy as this is a future major scheme bid that is still being prepared and will only be submitted for consideration by Government at some later date (see section 4.1 of LTP2). A full and detailed environmental impact assessment will be provided as part of the work associated with this major scheme bid development. There is no guarantee that any future major scheme bid will be accepted, and therefore it has not been included in the SEA at this time.

The Preferred Strategy

3.5 Swindon Borough Council's second Local Transport Plan has been developed not only to address the concerns and issues raised during the consultation, but also to help facilitate the growth and economic regeneration of the town centre, in order to place Swindon as an important regional centre over

the next decade. It is very important to recognise that the final assessment of the likely impact of the preferred strategy is constrained by the funding allocation by government and can therefore not have the same magnitude of benefits as the options could offer in theory.

3.6 The strategy recognises that economic and physical growth can cause congestion, and that quality of life is dependent on access to goods and services, education, employment, health care and social and recreation opportunities. The strategy promotes travel choices and does not impose severe restrictions of car users. It does, however, strongly support the use and promotion of public transport and active travel especially for short trips.

3.7 Congestion and irregular journey times will be tackled by making best use of the existing road network and by using technology to increase the operational capacity of junctions, alongside improving the network users' knowledge of the conditions on the roads ahead and of the options for alternative modes of travel.

Proposed Mitigation Work alongside the Preferred Strategy

3.8 As noted earlier in this report (paragraphs 1.22 to 1.34), the first round of consultation with the statutory consultees resulted in a number of issues being raised which were responded to within the development of the provisional second Local Transport Plan. For example (paragraph 1.31) concerns were raised about the potential impact of the construction of a park and ride site at Commonhead. The Council is committed to ensuring that any archaeological value is recognised. A planning condition has been placed on the development to control the site excavation and requiring an independent company to oversee and report on the work.

3.9 In addition to the issues raised above, Swindon Borough Council already undertakes both scheme construction and maintenance work with regard to environmental impact as standard practice (paragraph 2.15). Therefore, any construction work related to the implementation of bus priority measures, for example, will include an assessment of the environmental impact as this is a statutory requirement, and the necessary amelioration / mitigation work will be included as part of the scheme delivery.

3.10 The majority of the strategies and schemes being promoted in the second Local Transport Plan, however, will not be large-scale construction and will therefore require very little formal environmental mitigation works.

Monitoring the Environmental Effects of the second Local Transport Plan

3.11 Monitoring will be undertaken using the Local Transport Plan Annual Progress Report mechanism. In addition, a number of the indicators identified in

Table 2.5 are also used by other departments as part of their annual review processes. If it is identified that a negative trend is occurring, the Council will initiate intra-departmental investigation and more detailed analysis of the facts so that an action plan can be drawn up, and implemented to redress the problems.

Appendix A: Copies of letters sent to Statutory Environmental Consultees and their Responses to Stage One

Appendix B: Summary Tables for Environmental Assessment of Strategy Options

B1 This appendix presents descriptions of each of the proposals in terms of the impact it was felt was likely to have on the NATA topics being considered. It has been assumed that all other plans and programmes underway would continue and that only the potential second Local Transport Plan elements change.

B2 It should also be noted that no strategic environmental assessment has yet been undertaken for the North Swindon Transport Strategy as this is a future major scheme bid that is still being prepared and will only be submitted for consideration by Government at some later date (see section 4.1 of LTP2). A full and detailed environmental impact assessment will be provided as part of the work associated with this major scheme bid development. There is no guarantee that any future major scheme bid will be accepted, and therefore it has not been included in the SEA at this time.

Table B1: Option 1 – Increasing network capacity for private vehicles

Topic	Description of effect	Overall effect
AIR QUALITY	Air quality will be negatively affected as increasing capacity for vehicles will result in more vehicles on the road at any one time. It will also help to build the belief that road travel is easy and walking, cycling, bus and train travel is a last resort.	-
BIODIVERSITY	Biodiversity will be negatively affected in the shorter-term as a result of more roads being built and larger junctions which will impinge in natural habitats, and in the longer-term by facilitating growth in this way will encourage even more development and land-take in green-field sites.	-
CLIMATIC FACTORS	On a global scale the impact of increasing network capacity for road vehicles in Swindon will not have much of an impact, but it will be negative. Of greater importance would be the impact on individual's beliefs about road travel.	-

CULTURAL HERITAGE	It is unlikely that cultural heritage will be affected by increasing network capacity unless important buildings or recreation land is destroyed as a result. However, there is insufficient funding in LTP2 to undertake such work. Much greater impact will result from the implementation of the plans of The New Swindon Company.	○
HUMAN HEALTH: safety	It is unlikely that human health, particularly safety, will be affected by increasing network capacity. Research suggests that there are fewer, and less severe, accidents at traffic signals compared to roundabouts for vehicles as well as pedestrians and cyclists. It has also shown that above a certain threshold of traffic, signals are more efficient as “processing” vehicles than roundabouts.	○
HUMAN HEALTH: physical fitness	Physical fitness will be strongly negatively effected as it is made much easier to travel by car and the desire to try active modes is reduced.	--
HUMAN HEALTH: noise	Noise levels will increase as there is simply more traffic on the roads.	--
LANDSCAPE: rural	Increasing network capacity will not have a significant effect on the rural landscape as these areas of Swindon are not currently in need of schemes.	○
LANDSCAPE: townscape	The townscape of Swindon will be greatly effected over the next 15 years by the implementation of the plans of The New Swindon Company. It might be argued that the implementation of measures such as variable message signing and a general rationalisation of car parking signs could improve the townscape, but this is likely to be outweighed by an increase in traffic volumes which will detract from the over all impression.	○
MATERIAL ASSETS	Spending money improving the quality of the road network so that it can operate more efficiently will have a positive impact on the overall material assets of the Council.	+
POPULATION: accessibility	Increasing the network capacity for private vehicles will mean that people with cars will be able to get to more places more easily. Unfortunately, this will not tackle the issue of accessibility for people without access to cars (adults and children), or necessarily help to speed the travel of buses.	+
SOIL	Building more roads and bigger junctions could have a negative impact on the soil quality due both to pollution and to associated land-take.	-
WATER	There is likely to be a negative effect on both water quality as a result of run-off from roads and pollution, and as land previously safe-guarded for flood plain is built upon.	-

Table A2: Option 2 – Enhancing and improving bus travel

Topic	Description of effect	Overall effect
AIR QUALITY	There is likely to be a positive impact on air quality as more people use the enhanced and improved bus services and do not use their cars.	+
BIODIVERSITY	Although this strategy will not have any negative impacts on biodiversity, it is hard to argue for any positive impacts.	○
CLIMATIC FACTORS	On a global scale the impact of this strategy will not be great, but on a local scale the benefits could be very marked.	+
CULTURAL HERITAGE	Enhancing and improving bus travel will have a positive impact on cultural heritage as it will reduce the detrimental impact of cars as well as opening up cultural and recreational visits to more people who do not have access to cars (adults and children).	+
HUMAN HEALTH: safety	It might be argued that more bus travel would mean fewer cars and therefore fewer road traffic accidents. However, as this is difficult to quantify a neutral impact would seem more realistic.	○
HUMAN HEALTH: physical fitness	Enhanced and improved bus services would encourage people out of their cars and therefore encourage more walking. Easier access to cultural and recreational areas might also mean that currently sedentary people might be encouraged to go out more.	+
HUMAN HEALTH: noise	Fewer cars could equal less car noise.	+
LANDSCAPE: rural	There may be a slight positive impact on the rural landscape as a result of this strategy stemming from a possible decrease in the amount of traffic in rural areas. However, as this is difficult to quantify a neutral impact seems realistic.	○
LANDSCAPE: townscape	Enhancing and improving bus travel will have an important benefit on townscape, and already forms and important element of the facilitation of the plans of The New Swindon Company.	+
MATERIAL ASSETS	Investment in a new bus exchange as well as the real-time information system and hardware will have a positive impact on the overall material assets of the Council.	+

POPULATION: accessibility	The potential improvements to accessibility of enhancing and improving bus travel could be very great. However, these benefits are constrained by funding, particularly revenue funding which is required for an extension of concessionary fares and to the hours of operation and routes supported by tendered services. Therefore a ++ must be tempered.	+
SOIL	There is unlikely to be any impact on either soil or water as a result of this strategy.	○
WATER	- see above -	○

Table A3: Option 3 – Demand management

Topic	Description of effect	Overall effect
AIR QUALITY	There is likely to be a positive impact on air quality as managing demand will reduce the number of cars on the road.	+
BIODIVERSITY	Although this strategy will not have any negative impacts on biodiversity, it is hard to argue for any positive impacts.	○
CLIMATIC FACTORS	On a global scale the impact of this strategy will not be great, but on a local scale the benefits could be very marked.	+
CULTURAL HERITAGE	It is unlikely that cultural heritage will be affected by and demand management measures directly, however releasing space currently used by cars could increase opportunities for new cultural facilities. However, as this is difficult to quantify a neutral impact seems realistic.	○
HUMAN HEALTH: safety	Demand management could have a positive impact on safety as reducing cars could reduce the likelihood road traffic accidents. However, as this is difficult to quantify a neutral impact seems realistic.	○
HUMAN HEALTH: physical fitness	While the effect of this strategy may be neutral, the other strategies that will continue (that are not related to LTP2) will increase levels of activity a little. In addition, if parking is more controlled people may be inclined to walk, cycle or use the bus and therefore walk slightly more.	+
HUMAN HEALTH: noise	Noise levels will be reduced because car numbers and use will be managed and even reduced.	+
LANDSCAPE: rural	As the demand management measures are likely only to effect the urban areas, it is not likely that there will be any impact on the rural landscape.	○

LANDSCAPE: townscape	The impact of this strategy on the townscape of Swindon will be positive as managing demand will ensure a more conducive environment to live and work in and to visit. It should be remembered that managing car use is not the same as limiting access and should indirectly encourage more walking, cycling and use of public transport.	+
MATERIAL ASSETS	The material assets of the Council might be improved as a result of reducing the number of long stay parking spaces which could increase revenue. The other demand management measures could also increase revenue.	+
POPULATION: accessibility	There may be a negative impact on accessibility because it will become more difficult, or more expensive, to get to services and facilities. It should be noted, however, that if these measures were applied, more bus services might become commercial.	-
SOIL	There is unlikely to be any impact on either soil or water as a result of this strategy.	○
WATER	- see above -	○

Table A4: Option 4 – Raising awareness and promotion of sustainable travel options

Topic	Description of effect	Overall effect
AIR QUALITY	There is likely to be a positive impact on air quality as more people use sustainable travel alternatives rather than their cars.	++
BIODIVERSITY	As this strategy does not advocate large scale construction, there is likely to be little impact on biodiversity.	○
CLIMATIC FACTORS	While on a global scale the impact of this work may be relatively small, on a local scale both in terms of pollution levels and individual's attitudes, the positive impact could be marked.	+
CULTURAL HERITAGE	Raising awareness and promotion of sustainable travel options will have a positive impact on cultural heritage as it will reduce the detrimental impact of cars as well as opening up cultural and recreational visits to more people who do not have access to cars (adults and children).	+
HUMAN HEALTH: safety	Safety levels will increase not only as a result of fewer cars on the road, but also as a result of greater awareness of the implications of driving and the health benefits of active travel.	+

HUMAN HEALTH: physical fitness	There will be important benefits for physical activity levels which will build and magnify the work of other active groups outside the LTP2 funding frame.	++
HUMAN HEALTH: noise	Noise levels will be reduced because car numbers and use will be managed and even reduced.	+
LANDSCAPE: rural	There may be a slight positive impact on the rural landscape as a result of this strategy stemming from a possible decrease in the amount of traffic in rural areas. However, as this is difficult to quantify a neutral impact seems realistic.	o
LANDSCAPE: townscape	This strategy will have a positive impact on the townscape as it will help reduce / remove the detrimental impact of cars and help encourage greater use of the town centre whilst minimising the impact on the environment.	+
MATERIAL ASSETS	Investing in more cycling and walking routes, and ensuring an increased level of maintenance could increase the material assets of the Council. However, as it could also put additional demands on maintenance funding from limited resources it seems realistic to set this impacts as neutral.	o
POPULATION: accessibility	This strategy and the associated schemes would increase accessibility.	+
SOIL	There is unlikely to be any impact on either soil or water as a result of this strategy.	o
WATER	- see above -	o

Table A5: Option 5 – Preferred strategy

Topic	Description of effect	Overall effect
AIR QUALITY	The combination of demand management measures, raising awareness and promotion of sustainable measures and enhancing bus services will act to reduce the number of cars on the roads and thus benefit air quality in the local area. This will help to reduce the negative impact resulting from the large-scale committed and potential development in the area.	o
BIODIVERSITY	LTP2 may include two large-scale construction schemes: Commonhead Park and Ride, and work at existing junctions to increase their capacity and provide bus priority measures. The necessary mitigation works will be ensured so that there is no impact on biodiversity. However, this will not have a significant effect on the main impacts caused by the large-scale committed and potential development.	--

CLIMATIC FACTORS	On a global scale, Swindon's LTP2 will not have a large impact on climate change. Local air quality is likely to be improved, but as the strategy does not severely limit car use the overall impact will not be noticeable compared to global climate change trends.	- -
CULTURAL HERITAGE	The impact of LTP2 on cultural heritage is likely to be neutral. Any impact on archaeology as a result of Commonhead Park and Ride site will be incorporated into the mitigation works.	○
HUMAN HEALTH: safety	Reducing the number of people killed or seriously injured is an important objective within LTP2. The strategy will therefore have a positive impact.	+
HUMAN HEALTH: physical fitness	Raising awareness and promotion of sustainable measures will have a positive impact on physical activity levels.	+
HUMAN HEALTH: noise	It is likely that there will be a little impact on noise levels as LTP2 is not severely limiting of cars. The overall trend in the area is for decline as a result of the large-scale committed and potential development in the area.	-
LANDSCAPE: rural	It is likely that there will little impact on the rural landscape as much of the limited funding allocation for LTP2 will be concentrated on the urban environment. The overall trend will therefore continue.	-
LANDSCAPE: townscape	In combination with the plans set out by The New Swindon Company, the impact on the townscape will be positive. An important element will be promoting the use of sustainable travel modes, particularly buses so that more people can live, work and visit the town without having to drive their cars.	+
MATERIAL ASSETS	Investing in the maintenance of the Council's highways and footways will increase the material assets.	+
POPULATION: accessibility	Accessibility is an important element of LTP2, and the schemes developed are designed to increase accessibility.	+
SOIL	There is unlikely to be any impact on either soil or water as a result of this strategy. The overall trend will therefore continue.	○
WATER	- see above -	-

Appendix C: Plans and Programmes Reviewed for Stage A

C1 This appendix presents a summary of the international, european, national, regional and local level plans and programmes that are of relevance to the Local Transport Plan and the Strategic Environmental Assessment.

Table C.1: Plans and Programmes Reviewed for Stage A

Plan or Programme	Objectives or Requirements	Implemented at Regional or Local Level
INTERNATIONAL		
Biodiversity, Flora and Fauna		
The Convention on Wetlands of International Importance 1971 (amended 1982)	Requires signatory states to designate important wetlands for conservation in particular waterfowl habitats. Designation of Ramsar Sites to be protected from development.	Regional Environmental Strategy, Local Biodiversity Action Plan.
Convention on Biodiversity (1992)	Implementation of national strategies, plans and programmes for the conservation and sustainable use of biological diversity.	Local Biodiversity Action Plan.
Johannesburg Summit on Sustainable Development (2002)	Implement strategies to support ecosystems.	Local Biodiversity Action Plan. Agenda 21.
Climatic Factors		
United Nations Framework Convention on Climate Change (1994)	Framework leading to the adoption of the Kyoto Protocol in 1997.	Local Air Quality Action Plan
Kyoto Protocol (1997)	Implement measure to limit/reduce the emissions of greenhouse gases.	Local Air Quality Action Plan
Cultural Heritage		
UNESCO World Heritage Sites	Stonehenge and Avebury designated to be afforded protection.	Wiltshire Structure Plan.
EUROPEAN		
European Sixth Environmental Action Programme (2000)	Environment 2010: Our future Our Choice. Priorities and objectives of Community environmental policy up to 2010 and beyond.	National Level

European Strategy for Sustainable Development (2001)	Sustainable Europe for a Better World. Objectives for sustainable development in Europe concerning climate change, transport, health and natural resources.	European and National framework.
Air		
Air Quality Framework Directive 1996/62/EC	Long term air quality objectives	Local Air Quality Action Plan (Not in Swindon)
Council Directive 1999/30EC on Ambient Air Quality Limits	Concentration of sulphur dioxide, nitrogen dioxide, particulate matter and lead in the ambient air.	Local Air Quality Action Plan (Not in Swindon)
Biodiversity, Flora and Fauna		
Conservation of European Wildlife and Natural Habitats (1979)	To ensure the conservation of European wildlife and its natural habitats by means of cooperation between states. Its provision underlie the 1992 'Habitats Directive'	Regional Environmental Strategy and Local Biodiversity Action Plan.
European Biodiversity Strategy (1998)	Europe's obligation to integrate environmental concerns.	Framework for National Policy.
Wild Bird Directive 1979/409/EEC	Sustaining habitats in order to maintain important bird populations at "ecologically and scientifically sound levels". Designation and protection of SPAs.	Regional Environment Strategy and local Biodiversity Action Plan.
Habitats Directive 1992/43/EEC	Legislative and administrative measures to maintain and restore natural habitats and wild species at a "favourable status". Designation of SACs and use of Appropriate Assessment.	Regional Environment Strategy and Local Biodiversity Action Plan.
Climatic Factors		
European Climate Change Programme	To combat climate change by multiple means including fields of energy, industry and transport.	Local Air Quality Action Plan
Population and Human Health		
Council Directive 2002/49/EC on the Assessment and Management of Environmental Noise	Common approach to avoid, prevent or reduce noise on a prioritised basis including the harmful effects of exposure to environmental noise in built up areas, public parks or other quiet areas.	PPG24
Landscape		
The Pan-European Biological and Landscape Diversity Strategy (1995)	Maintain and enhance Europe's biological and landscape diversity.	National Level
Water		
Water Framework Directive 2000/60/EC	Member States to achieve "good ecological status" by 2015.	Local Environment Agency Plans
NATIONAL		
Government Strategy on	Social Inclusion	Integrated Regional Transport

Sustainable Development (1999)	Protection of the environment Sustainable economic growth and employment Prudent use of natural resources	Strategy
Department for Transport Public Service Agreement (PSA)	PSA's goals identifying key service areas for improvement. Including transport for everyone.	Local PSA, Regional Transport Strategy, Local Transport Plan.
Transport 2010 the ten year plan (2000)	White Paper- The Future of Transport	Regional Transport Strategy, Local Transport Plan.
PPG13 Transport (1999)	Integrated transport and land-use planning. Reducing the need to travel.	Regional Transport Strategy, Local Transport Plan
A New Deal for Transport (1998)	National Objective for Transport.	Regional Transport Strategy, Local Transport Plan.
A New Deal for Trunk Roads (1998)	Strategic review of trunk roads network and programme.	Regional Transport Strategy, Local Transport Plan.
Air		
National Air Quality Strategy (2000)	Targets for reducing air pollution and to protect health, vegetation and the ecosystem.	Regional Environment Strategy, Local Airy Quality Action Plan.
Biodiversity, Flora and Fauna		
PPG 9: Nature and Conservation	Governments planning guidance includes protection to SSSIs.	RPG10, Wiltshire and Swindon Structure Plan, Regional Environment Strategy, Swindon Local Plan.
PPG7: Countryside	Government planning guidance includes balance economic and environmental issues when considering development in the countryside.	RPG10, Wiltshire and Swindon Structure Plan, Regional Environment Strategy, Swindon Local Plan.
Biodiversity Strategy for England (2002)	Overarching strategy to ensure biodiversity issues are being considered.	Local Biodiversity Action Plan
Environment Agency – Make it Happen, Corporate Strategy	A better quality of life, enhanced environment for wildlife, cleaner air, greener business, and reducing flood risk.	Local Plan
The English Forest Strategy	Governments Strategic consideration for forestry in England.	RPG10 Wiltshire and Swindon Structure Plan, National Forest Strategy.
Climatic Factors		
PPG25 Development and Flood Risk	Identifies land-use planning as a key area to ensure management and reduction of flood risk.	RPG10, Wiltshire and Swindon Structure Plan, Swindon Borough Local Plan.
The UK Programme for Climate Change	Target for UK to cut its emissions by 12.5% below 1990 levels.	Regional Environment Strategy
Cultural Heritage		
PPG 15 Planning and the Historic Environment	Planning Policy Guidance for historic buildings and conservation areas	RPG10, Wiltshire and Swindon Structure Plan, Local Plan

PPG 16 Archaeology and Planning	Compliments PPG 15 by providing advice on archaeological remains	RPG10, Wiltshire and Swindon Structure Plan, Local Plan
Population and Human Health		
PPG 23 Planning and Pollution Control	Planning Policy Guidance on air quality, water quality and waste management	RPG10, Wiltshire and Swindon Structure Plan, Local Plan
PPG 24 Planning and Noise	Planning Policy Guidance on noise, Noise Exposure Categories.	RPG10, Wiltshire and Swindon Structure Plan, Local Plan
Tomorrows Roads Safer for Everyone (1999)	Governments Safety Strategy	Regional Transport Strategy, Local Transport Plan
Encouraging Walking Strategy (1996)	Guidance on walking environments	Regional Transport Strategy, Local Transport Plan
National Cycling Strategy (1996)	Targets and guidance for developing cycling	Regional Transport Strategy, Local Transport Plan
Rural White Paper :Our Countryside the Future (2000)	Governments Policy for Rural England	Wiltshire and Swindon Structure Plan, Local Plan.
PPG 3: Housing (2000)	Mixed use development to reduce the need to travel	Wiltshire and Swindon Structure Plan, Swindon Local Plan.
PPG 6 Town Centre and Retail Development	New development to focus on town centres	RPG 10, Local Plan
PPG 17 Planning for Open Space, Sport and recreation Facilities	Planning Policy Guidance on the need to provide open space and the provision of leisure facilities	RPG10, Local Plan
Landscape		
English Nature Natural Area Strategy	Framework to help achieve objectives such as those set on the Biodiversity Action Plan.	Regional Strategy for the South West's Environment
REGIONAL		
Regional Sustainable Development Framework for the South West of England	Meeting the needs of people while at the same time being beneficial to the environment economy and society	Wiltshire and Swindon Structure Plan, Local Plan
Regional Planning Guidance 10 (2001)	Spatial Framework which Local Authority development plans, Local Transport Plans and other strategies in the South West should be prepaid.	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan.
Regional Transport Strategy	Steer new development to more sustainable locations, reducing the need to travel and enable journeys to be made by much more sustainable modes of transport.	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan.
Regional Economic Strategy (2003)	Raise productivity, competitiveness and profitability. Increased prosperity particularly in most deprived areas. Improve regional communication and partnership.	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan.
Integrated Regional Strategy/ The Regional Strategy for the South West Environment 2004-2014	Our Environment Our Future – Framework for outline in South West	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan.
Biodiversity, Flora and Fauna		

Action for Biodiversity in the South West	South West co-ordination of the biodiversity.	Local Biodiversity Action Plan.
Cultural Heritage		
A Report for Culture South West	Provide strong strategic leadership the region's cultural development and work with partners and increase cultural opportunities across the South West.	Swindon Borough Council Culture and Leisure Strategy 2003-2013.
Population and Human Health		
London to SW and S Wales Multi Modal Study	To make recommendations for a long-term strategy to address passenger and freight transport movement.	Local Plan, Local Transport Plan, Regional Transport Study.
Public Health Development Plan	To be produced	
The South West Regional plan for Sport	Increase the number of young people involved in the sports. Etc.	SBC Culture and Leisure Strategy 2003/2013.
Water		
Our Environment Our Future	Regional Environmental Strategy	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan. Local Biodiversity Action Plan.
Environment Agency- Upper Thames Local Environment Agency Plan 2001	Managing water resources: enhancing biodiversity: conserving the land	Local Plan and Swindon Biodiversity Action Plan
State of the South West 2004	To inform rather than make policy	
LOCAL		
Wiltshire and Swindon Structure Plan 2011.	Planning Framework	
Swindon Local Plan 2011	Strategy/outline for future development	
The New Swindon Company – Swindon Regeneration Framework	Create a compact, higher order central core, and encourage mixed uses. Create prime office quarter, a new retail circuit and new cultural and civic heart.	Local Plan and Local Transport Plan
Principal Urban Area Study	Assessment of future development locations.	Wiltshire and Swindon Structure Plan, Local Plan, Local Transport Plan
Medium Term Business Plan	A Learning and Creative Place, A Healthy and Caring Place, an Economically Prosperous Place, an Environmentally Friendly Place, a Safe Place, A Council for the Future.	
Air		
Local Air Quality Updating and Screening Report	2004 Progress Report identifies Swindon's monitoring activities in this regard and tabulates data recorded.	
Biodiversity, Flora and Fauna		

Swindon Biodiversity Action plan (Consultation Draft July 2004)	To protect and enhance the diversity of wildlife and conservation areas in Swindon.	
English Nature	Champions the conservation of wildlife, geology and wild places	Development on sites of international, national, local importance only permitted in exceptional circumstances.
Local Agenda 21	Sustainable initiatives.	
Population and Human Health		
Draft Health Improvement and Modernisation Programme	National Health Priorities	
A five year Swindon Physical Activity Strategy 2004/5 – 2009/10	To improve the health of the residents of Swindon by increasing the number partaking in physical activity	
SBC Sport Strategy	Work with leisure centres to identify how they can open access to their services by the implementation of a concession scheme.	

Table C2: Relevant objectives and targets from other plans and programmes

Relevant Plan or Programme	Key Objectives
NATIONAL	
Department for Transport - Public Service Agreement	<p>Existing</p> <p>PSA target 1: Reduce congestion on the inter-urban trunk road network and in large urban areas in England below 2000 levels by 2010.</p> <p>PSA target 2: Secure improvements in rail punctuality and reliability with a 50 percent increase in rail use in Great Britain from 2000 levels by 2010.</p> <p>PSA target 3: Secure improvements to the accessibility, punctuality and reliability of local public transport (bus and light rail) with an increase in use of more than 12 per cent by 2010 compared with 2000 levels.</p> <p>PSA target 4: Cut journey times on London Underground services by increasing capacity and reducing delays.</p> <p>PSA target 5: Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40 per cent, and the number of children killed or seriously injured by 50 per cent by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.</p> <p>PSA target 6: Improve air quality by meeting our National Air Quality strategy objectives for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1,3-butadiene. (Joint target with the Department for Environment, Food and Rural Affairs - DEFRA).</p> <p>PSA target 7: Achieve annual 2.5 per cent efficiency improvements across the Department.</p> <p>Spending Review 2004 PSA Targets</p> <p><u>Objective I:</u></p> <p>Support the economy through the provision of efficient and reliable interregional</p>

transport systems by making better use of the existing road network; reforming rail services and industry structures to deliver significant performance improvements for users; and investing in additional capacity to meet growing demand.

The Department for Transport are developing better measures of inter-urban congestion and will publish a new target by July 2005. They will also publish annual long-term projections of congestion.

Improve punctuality and reliability of rail services to at least 85% by 2006, with further improvements by 2008.

Objective II:

Deliver improvements to the accessibility, punctuality and reliability of local and regional transport systems through the approaches set out in Objective I and through increased use of public transport and other appropriate local solutions.

By 2010, increase the use of public transport (bus and light rail) by more than 12% in England compared with 2000 levels, with growth in every region.

The Department for Transport are developing better measures of urban congestion and will publish a new target by July 2005. They will also publish annual long-term projections of congestion.

Objective III:

Balance the need to travel with the need to improve quality of life by improving safety and respecting the environment.

Reduce the number of people killed or seriously injured in Great Britain in road accidents by 40% and the number of children killed or seriously injured by 50%, by 2010 compared with the average for 1994-98, tackling the significantly higher incidence in disadvantaged communities.

*Improve air quality by meeting the Air Quality Strategy targets for carbon monoxide, lead, nitrogen dioxide, particles, sulphur dioxide, benzene and 1,3 butadiene. **Joint with the Department for Environment, Food and Rural Affairs.***

*To reduce greenhouse gas emissions to 12.5% below 1990 levels in line with our Kyoto commitment and move towards a 20% reduction in carbon dioxide emissions below 1990 levels by 2010, through measures including energy efficiency and renewables. **Joint with the Department for Environment, Food and Rural Affairs and the Department of Trade and Industry.***

Objective IV:

Improve cost-effectiveness through sound financial management, robust cost control, and clear appraisal of transport investment choices across different modes and locations.

REGIONAL

Regional Planning Guidance 10

Policy SS 11: Swindon

Local authorities, developers, infrastructure and transport providers and other agencies, should work together to achieve the following for Swindon:

- 1 continued economic investment and associated development;
- 2 adequate housing provision to provide a better balance with employment growth;
- 3 investment to achieve improvements in the urban environment and in retail, cultural and social infrastructure;
- 4 more efficient use of land within the urban areas through the development of brownfield land, development at higher densities and the selective redevelopment of parts of the urban area;
- 5 sustainable urban extensions incorporating a mixture of uses and sustainable transport facilities, involving a review of the rural buffer;

	<ul style="list-style-type: none"> ●6 appropriate and timely investment in public transport, water resources and treatment and other infrastructure to meet the long term needs of the town and to support the spatial strategy.
<p>The Regional Sustainable Development Framework for the South West of England</p>	<p>Transport Objectives</p> <p>1: Reduce the need to travel</p> <ul style="list-style-type: none"> ●1 Ensure better integration of employment and residential development ●2 Improve service provision in rural areas e.g. local pub also local post office <p>2: Promote fuel efficient transport systems accessible to all</p> <ul style="list-style-type: none"> ●1 Encourage walking and cycling for local journeys ●2 Promote greater availability and use of affordable public transport ●3 Discourage unnecessary use of the private car ●4 Support community transport initiatives ●5 Greater use of ICT to provide integration information on different transport modes ●6 Transfer freight from road to rail and sea <p>3: Improve air quality for all</p> <ul style="list-style-type: none"> ●1 Reduce overall levels of travel ●2 Reduce congestion ●3 Improvements in vehicle technology to lower emissions <p>4: Provide a safe environment for all</p> <ul style="list-style-type: none"> ●1 Provision of home zones, 20 mph zones quiet lanes ●2 Safer journeys to school
<p>Wiltshire and Swindon Structure Plan 2016 Deposit Draft</p>	<p>Wiltshire and Swindon Structure Plan 2016 Deposit Draft</p> <p>In the plan areas provision should be made for 60,000 net additional dwellings and 720 hectares of additional strategic employment land between 1996 and 2016, distributed between; Kennet District North Wiltshire District, Salisbury District, West Wiltshire District, Swindon Borough.</p> <p>Swindon Borough = 26,000 dwellings and employment land 280(HA.)</p> <p>Current state of environment, what would happen without the Transport Plan?</p> <ul style="list-style-type: none"> ●1 Northern development area – 9000 dwellings ●2 Northern development area – 3400 dwelling completed by 2002 ●3 Southern development area – 4500 capacity. The identification of this area to meet requirements up to 2011 was endorsed in the Panel Report of the second Examination in Public. <p>All development will be of a high standard of design and protect or enhance landscape and biodiversity. In locating development, highest priority will be afforded to making provision on previously developed land.</p> <p>Environmental characteristics likely to be significantly effected by the Transport Plan?</p> <p>Development should primarily be focused at the Swindon Principal Urban area to support and enhance its role and function.</p> <p>The Northern Development area and the Southern development area should be the main</p>

locations for the development of new housing, associated employment land, shopping and services.

Local plans should identify other settlements to provide for more local social and economic needs. Development should be limited in scale and well integrated with the existing form of the settlement. Housing development should be limited to settlements that have employment opportunities satisfying local need, facilities and services, and access by public transport.

The principal urban area is defined as the continuous built up urban area of Swindon plus the eastern development area, the university campus site at Coate, and commitments and allocations in Local Plans, which form extensions to the urban area.

To support a sustainable pattern of development in Wiltshire, meeting the needs of the County's current and future population for:-

- (a) a prosperous and robust economy
- (b) an attractive and suitably protected environment
- (c) good housing and community facilities

through the strategic planning of land-use and transport.

Existing Environmental problems relevant to the to the plan, particularly pursuant to Directives 79/409/EEC and 92/43/EEC.

See 2016 Deposit alterations Swindon Area Inset Key diagram for 'Main Concentration of Sites of Ecological Importance and Area of Outstanding Natural Beauty.

The new policy C3 states: "The Nature Conservation importance of habitats listed within the Wiltshire and Swindon Biodiversity Action Plans, habitats for protected species and wildlife corridors should be protected and enhanced wherever possible".

Policy DP10C – Provision is made for university campus to the South East of Swindon at Coate if these educational needs cannot be accommodated either within Swindon's central area, through the expansion of existing facilities at Oakfield, or at an alternative previously developed site with the Swindon's central area.

Objective relevant to the Transport Plan

New Policy T2 – An appropriate level of accessible, safe and efficient public transport services should be secured to:

- 1 Meet the needs of people without access to private transport:
- 2 Reduce reliance upon the car;
- 3 Serve the identified needs arising from existing and proposed major developments:
and
- 4 Contribute to environmentally sustainable development.

New Policy T5 – In urban areas, demand management measures will be promoted where appropriate to reduce reliance upon the car and to encourage the use of sustainable transport modes.

- 1 Maximum car parking standards
- 2 Public car parking charges
- 3 Traffic management measures
- 4 Charging measures

New Policy T10 - The Councils, in conjunction with the Highway agency, the strategic rail authority transport operators and other agencies, will seek to develop and improve the strategic transport network.

New Policy T15 Roads will be maintained AND WILL BE IMPROVED IN accordance with their function

	<p>All chapter 5 policies relate to Transport and therefore the Local Transport Plan. Policies T1 to T17</p>
<p>Regional Transport Strategy</p>	<p>Regional Transport Strategy / Regional Planning Guidance</p> <p>The Regional Transport Strategy is an important mechanism for delivering the government's objectives as set out in Transport 2010. The plan provides an important national context for development in the RTS.</p> <p>Objective relevant to the Transport Plan</p> <ul style="list-style-type: none"> •1 to support the spatial strategy of RPG and to service existing and new development efficiently and in an integrated fashion; •2 to reduce the impact of transport on the environment, (which is increasing as a result of growth in road traffic, noise and pollution) by reducing the need to travel, encouraging travel by more sustainable means (especially by walking and cycling) and locating development in these locations, particularly by public transport; and to achieve environmental improvements by directing investment to those locations where infrastructure is required to offset the damaging effects arising from the impact of traffic and transport; •3 to secure improved accessibility to work, shopping leisure and services by public transport, walking and cycling; •4 to create a modern, efficient and integrated transport system that will meet the demands of a dynamic regional economy, help overcome regional peripherality and meet all travel needs; •5 to ensure the safe use of the regional transport network and it's associated facilities <p>Aims/Objectives/Polices</p> <p>Indicative Targets/Area where Target should be Defined</p> <p>Output</p> <p>Indicators</p> <p>Outcome Indicators</p> <p>(g) providing integrated, efficient and environmentally appropriate transport systems.</p> <p>Transport Policy TRAN 1 Reductions in rate of growth of road traffic. Reduction in congestion. Investment programmes by rail/bus operators. Investment by Highway Agency and Local Highway Authorities in road network Increase in ridership on public transport. Proportion of road network, which is overloaded/number of congestion 'hot-spots'.</p> <p>(h) Improving accessibility and encouraging sustainable transport.</p> <p>Transport Policies TRAN 10, TRAN 5 Transport Policies TRAN 6 Increase in proportion of journeys by walking, cycling and public transport.</p>

	<p>Reduction in road casualties (contribution to national targets).</p> <p>Increase in % of freight carried by rail or water.</p> <p>Incorporation of parking standards/accessibility criteria into LTPs.</p> <p>Production of Green Transport Plans for major new developments and by major employers</p> <p>Number and proportion of all journeys by mode; modal split of journeys to work.</p> <p>Number of accidents, fatalities and other casualties.</p> <p>Volume and % of Freight by mode.</p>
<p>Swindon Borough Council Medium Term Business Plan</p>	<p>In 1999 the Council undertook a programme of consultations using various media to develop an understanding of a programme for addressing the problems of making sustainable development a reality in Swindon.</p> <p>Environmental characteristics likely to be significantly effected by the Transport Plan?</p> <p>The Borough Council's Local Transport Plan 2001-2006 sets out the integrated transport strategy.</p> <p>Existing Environmental problems relevant to the to the plan, particularly pursuant to Directives 79/409/EEC and 92/43/EEC.</p> <p>Objective relevant to the Transport Plan</p> <ul style="list-style-type: none"> •1 Promote high quality learning, cultural and creative opportunities for all •2 Improvement of people's health and quality of life •3 Expansion of the local economy creating better opportunities for the people to live and work here, and for businesses to thrive •4 Protect the environment and heritage for future generations and ensure environmental and ecological issues are at the heart of all decision making •5 A place where people feel safe •6 Swindon Borough Council is a high performing council and achieves the best value <p>The Council's Vision</p> <ul style="list-style-type: none"> •1 Learning and Education are given the highest priority, within a caring framework. We will promote the very best standards of achievement through good quality co-ordinated services, which meet the needs of all, including vulnerable learners. •2 People and Communities are included, services are accessible and vulnerable people are supported to be safe, healthy and have choice and independence to improve their opportunities in life. •3 There is support and enthusiasm for a vibrant Local Economy, where investment and innovation are invited and welcomed, where there is a well-balanced housing market that provides housing for all, and where Swindon Town Centre will be revitalised. •4 Our advantages as a Centre in the South are complemented by excellent local transport and traffic arrangements providing easy, safe and affordable movement throughout the Borough of Swindon. •5 Our responsibilities for Culture, Recreation and Sport make every effort, with partners, to offer exciting high quality culture and leisure opportunities and facilities for all. •6 The Environment and Heritage are protected, promoted and enhanced to take advantage of the mix of thriving town centre and outstanding countryside, therefore

	<p>increasing even further its attractiveness as a place to live.</p>
<p>Swindon Biodiversity Action Plan</p>	<p>Swindon Borough Council 's <i>Corporate Plan</i> lists as one of the six key themes: AN ENVIRONMENTAL FRIENDLY PLACE – Protect the environment for future generations and ensure environmental and ecological issues are at the heart of all decision making. The second document, "Our Swindon, Our Community, Our Future: Community Strategy for Swindon 2004 – 2010". This describes Swindon as "A place which values its environment and safe guards it for the future generations".</p> <ul style="list-style-type: none"> •1 Swindon should be a borough that shows how human activity and wildlife conservation can exist hand in hand. •2 Swindon's best remaining areas for wildlife to be protected and their quality enhanced. •3 Key habitats to be expanded, especially woodland, flower rich grassland and wetland, to create large areas of well connected habitat in the wider landscape. •4 Populations of birds and other cherished species such as water voles to return in number throughout the Borough. •5 Everyone in Swindon to appreciate the natural heritage they have, contributing to its future improvement and benefiting from its existence <p>Current state of environment, what would happen without the Transport Plan? Within the Borough we still retain some 88 sites that are regarded as local Sites of Interest for Nature Conservation (SINC) or County Wildlife Sites (CWS). Some sites such as Coate Water, Hinton Parva and Quidhampton woods are designated as Sites of Special Scientific Interest (SSSI). These are highly protected and contain collections of plants and animals that are of national importance. Swindon seems to be a stronghold for Great Crested Newts - a cause for celebration and something that should be retained and enhanced, rather than diminished or destroyed, in the course of future built development.</p> <p>Environmental characteristics likely to be significantly effected by the Transport Plan? Known sites of Biodiversity interest in and around Swindon Borough, (see Map 1, Swindon Biodiversity Action Plan, page 9). Priority areas for biodiversity (see Map 2, Swindon Biodiversity Action Plan, page 10).</p> <p>Existing Environmental problems relevant to the plan, particularly pursuant to Directives 79/409/EEC and 92/43/EEC. Continued rapid development is undoubtedly a major threat to biodiversity in the borough. However, there is great potential to protect and enhance wildlife through development if it is properly planned.</p> <p>Objective relevant to the Transport Plan</p> <ul style="list-style-type: none"> •1 Protection of the best area of wildlife: this includes all nationally protected sites, locally designated sites (Wildlife Sites) and strategic green corridors. •2 Enhancement of wildlife in the wider landscape: we need to focus activities in key areas where there is potential to achieve real and lasting gain. •3 Protect and enhance populations of particularly important species, such as the Water Vole and the Great Horseshoe Bat. •4 Involve people in the process wherever possible.

<p>Local Air Quality Management</p>	<p>Seven pollutants, for which objective standards were established are Benzene, 1,3 Butadiene, Carbon Monoxide, Lead, Nitrogen Dioxide, Particulate Matter and Sulphur Dioxide.</p> <p>Swindon Borough Council produced Stage 1, 2 and 3 reports but concluded at the third stage, that there was no likelihood of any of the objectives being exceeded, and consequently no Air Quality Management were declared.</p> <p>Monitoring of Nitrogen Dioxide levels at one site in Kinghill Road in 2003 identified a potential risk. This was monitored in-depth during 2004, but recorded levels have now returned to below the required threshold.</p>
<p>A Community Strategy for Swindon</p>	<p>Identifies five most important things to people in Swindon.</p> <ol style="list-style-type: none"> 1. Access to good education for all ages 2. Health services 3. Efforts to lower the level of crime 4. Affordable decent Housing 5. Job security and prospects <p>Six Themes come from this:</p> <ol style="list-style-type: none"> 1 Creating a Swindon for the future 2 An economically prosperous place 3 A place that value its environment and safeguards it for the future generations 4 A healthy and caring place 5 A learning and creative place 6 Keeping Swindon safe
<p>Swindon Local Plan</p>	<p>The Swindon Borough Revised Local Plan 2011</p> <p>All policies relevant those particularly to Biodiversity include policy ENV 17, this states:</p> <p>“Development within, adjoining or directly affecting Local Nature Reserves and Sites of Importance for Nature Conservation (also known as County Wildlife Sites) or species and habitats noted in Local biodiversity action plans (Wiltshire BAP 2002 and the emerging Swindon BAP), which is likely to have a detrimental impact, either individually or in combination with other proposal, shall only be permitted where it can be demonstrated that the reasons for development outweigh the need to safeguard the substantive nature conservation value of the site.</p> <p>Where development is permitted the Local Planning Authority shall seek:</p> <ul style="list-style-type: none"> •1 to maximise the protection and enhancement of the site’s intrinsic features of nature conservation value: as well as •2 compensatory measures to replace the loss of existing wildlife and habitats on at least a pro rata basis” <p>A range of other policies also apply, including:-</p> <ul style="list-style-type: none"> ENV 4 protection of historic Parks and Gardens ENV 9 Development and the Countryside ENV 14 Protection of Agricultural Land

	<p>ENV 15 Biodiversity: International Sites</p> <p>ENV 16 Biodiversity National Sites</p> <p>ENV 18 Habitats and species Protection</p> <p>ENV 19 Community Forest</p> <p>ENV 20 Existing Strategic Green Corridors</p> <p>ENV 21 Potential Strategic Green Corridors</p> <p>ENV 22 Ground and Surface Water Protection</p> <p>ENV 23 Protection of the Flood plain</p> <p>ENV 24 Riparian and other Buffer Zones</p>
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Appendix D: Compatibility Matrix

D1 This appendix presents a summary of assessment undertaken comparing the objectives within the Council’s second Local Transport Plan and those developed for the Strategic Environmental Assessment of the second Local Transport Plan. It can be seen that there are no incompatible objectives.

LTP2 Objectives	10	✓	✓	✓	✓	✓	✓	?	?	?	✓	✓	✓	?
	9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	6	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	?
	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?
	4	?	?	✓	✓	✓	?	✓	?	✓	✓	✓	✓	?
	3	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	?
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	1	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	?
		1	2	3	4	5	6	7	8	9	10	11	12	13
Strategic Environmental Assessment Objectives														

OBJECTIVE

Key:

- ✓ **Compatible**
- ? **Uncertain Link**
- X **Incompatible**
- **No Link**

SEA Objectives:

1. Contain/reduce air pollution to levels that do not damage the natural system.
2. Minimise the emission of greenhouse gases
3. Improve the health and well-being of the population and to reduce inequalities in health.

4. Reduce poverty and social exclusion, and close the gap between the most disadvantaged communities.
5. Reduce crime and fear of crime.
6. Promote opportunities for recreation, art, culture and heritage.
7. Reduce the number of people annoyed by noise.
8. Protect and enhance biodiversity.
9. Protect and enhance the historic and archaeological environment.
10. Promote and enhance a high quality built environment.
11. Promote vitality of the town centre.
12. Encourage urban regeneration through promotion of the Swindon Principal Urban Area.
13. Contain/reduce water and land pollution to levels that do not damage the natural environment.

LTP Objectives:

1. Work in partnership with The New Swindon Company and others to support the regeneration of the town centre and other neighbourhood renewal areas by improving access to, and travel round, these areas.
2. Manage the impact of traffic growth in Swindon by implementing sustainable mitigation measures.
3. Maintain and make best use of the existing transport infrastructure to provide the optimum level of service for all users, with selective infrastructure improvements where an acceptable level of service cannot otherwise be achieved.
4. Improve road safety.
5. Promote travel choice and increase opportunities for travel by public transport, cycling and walking.
6. Work with the strategic transport authorities (Highways Agency, Strategic Rail Authority, etc) to maintain an appropriate level of service on strategic networks.
7. Manage the impact of transport on the built and natural environment.
8. Develop orbital and other route networks and road hierarchies that

acknowledge the complex journey patterns within the urban area and reflect the locations of significant trip attractors.

9. Improve rights of way to, from and within Swindon's urban fringe and rural buffer, to enhance access to the countryside and improve pedestrian/cycle links with the urban networks.
10. Tackle issues of social exclusion and accessibility resulting from economic disparities in order to improve the quality of life in the Borough of Swindon

Appendix E: Designation Maps

E 1: SWINDON BOROUGH AND ENVIRONMENTAL DESIGNATION AREAS

E 2: THE NEW SWINDON COMPANY REGENERATION AREAS