

# **HERTFORDSHIRE COUNTY COUNCIL**

## **SOUTH WEST HERTS GROWTH & TRANSPORT PLAN**

**STRATEGIC ENVIRONMENTAL ASSESSMENT**

### **ENVIRONMENTAL REPORT**

**Sept 2020**



**Environment & Infrastructure**

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## **South West Herts Growth & Transport Plan Strategic Environmental Assessment (SEA) Environmental Statement**

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It is necessary to produce a SEA Environmental Statement - a statement which reports how the findings of the SEA and the results of the public consultation have been taken into account in the final South West Herts Growth & Transport Plan (SWHGTP). This Statement covers:

- How environmental considerations have been integrated into the SHWGTP;
- How the Environmental Report, the opinions of stakeholders and consultation responses have been taken into account;
- The reasons for choosing the SWHGTP chosen route as adopted in view of other reasonable alternatives;
- The measures that are to be taken to monitor the significant environmental effects of implementation of the SWHGTP.

### **How environmental considerations have been integrated into the SWHGTP**

It should be noted that it has been difficult to assign significance to the potential effects identified due to the fact that interventions are identified at a conceptual level within the SWHGTP and generally without detail on scope, scale, design and implementation, which would affect the nature and significance of environmental and social effects. The timing and extent of implementation is also uncertain as the identified schemes and packages are not currently funded.

SEA assessments were undertaken on:

- All the schemes individually (including the alternative approaches) in the draft and final South West Herts Growth & Transport Plan - total 54
- All of the linked projects individually - total 49

The impacts, SEA recommendations and HCC response to the recommendations have been summarised by Package (of which there are nine) rather than by individual scheme or project.

Table 1 shows the changes made to the SWHGTP as a result of the SEA assessments. Minimal changes were required to be made to the SWHGTP draft as a result of this Strategic Environmental Assessment, as there were only a small number of overall significant negative impacts identified. Most of these were in relation to major infrastructure projects such as junction improvements, and new sustainable transport infrastructure, such schemes would be assessed for the need for a full Environmental Impact Assessment.

**Table 1: Changes to the SWHGTP as a result of the SEA**

<b>SEA Assessment Area</b>	<b>Changes to the SWHGTP as a result of the SEA</b>
Package assessments	More content and clarity in Chapter 6 on softer measures, behaviour change and promotional activities to support infrastructure interventions. Reflects the importance of this strand of activity in boosting uptake of active and sustainable travel as identified in the SEA assessments.

The SEA assessments have also made recommendations that relate to other supporting strategies of the Local Transport Plan and internal processes. These include:

- The need to recognise issues of personal security, perception of safety and Hate Crime in context of passenger transport projects and objective of increasing bus usage – The integration of the Hertfordshire Hate Crime strategy should be more at the policy level rather than individual transport schemes in the Plan area, for example issues of Hate Crime should be considered in the LTP4 Intalink Bus Strategy.
- Environmental Impact Assessments may be required for some of the schemes if they progress – in particular, new link roads, major junction improvements and passenger transport infrastructure. An EIA should be undertaken on any schemes qualifying under the EIA Regulations or where scoping has identified EIA is needed.
- Recommendation to revisit policies and practices within the Highway Infrastructure Asset Management Plan (HIAMP) to determine opportunities for progression around use of local and recycled construction materials and recycling of construction waste
- Need to set out position on Electric Vehicle charging infrastructure within a suitable strategy supporting LTP4.
- Ensuring suitable processes and checks on environmental and social impacts of schemes are followed and mitigation implemented – including historic assets, archaeology, flood risk maps, use of SUDS and street lighting impacts.
- That any scheme consultations are sent to the relevant District/Borough council air quality officer.
- Ensuring suitable processes to consider Equalities impacts of schemes and seek to address equalities issues in scheme design – including impact of schemes and projects on hate crime and feeling of safety and security.
- Ensuring suitable promotion and marketing activities are delivered to support infrastructure project delivery.
- Monitor delivery of major road infrastructure and correlations and potential impacts on traffic growth, car use and congestion.

## How consultation findings have been taken into account

The Draft South West Herts Growth & Transport Plan went through a public and stakeholder consultation in the summer of 2018. The consultation was on the objectives and schemes, projects and packages included in the SWHGTP Prospectus document. All of the background papers for the SWHGTP were available for reference on the consultation webpages, along with the SEA Draft Environmental Report, the Equalities Impact Assessment (EqIA) report, a Summary consultation document and an 'Easy Read' interpretation of the SWHGTP.

Some key stakeholders were also involved in earlier engagement and development of the strategy at different stages, including a feedback opportunity on an earlier draft of the Prospectus.

The majority of the consultation comments were about the content of the SWH GTP itself (the proposed objectives, schemes and packages), rather than the SEA or EqIA. However, the consultation responses included a few comments and opinions on matters that relate to the SEA, EqIA and environmental and social effects.

Table 2 summarises how these consultation findings have been taken on board. Comments on the EqIA have been included in this environmental statement where they directly relate to issues raised in the SEA.

**Table 2: How consultation findings have been taken into account**

Summary of comments	How the comments were taken into account
Equalities Impact Assessment considered insufficient in terms of considering impacts of schemes on particular groups including in respect of hate crime and feelings of safety and security.	Recommendation that Equalities be considered with suitable assessment and checks as part of the scheme development process and equalities considerations be reflected in design. Recommendation included within SEA Environmental Statement.
Comments relating to potential environmental effects of individual scheme proposals.	Recommendation for full Equalities Impact Assessment for any schemes qualifying under the Regulations and/or as identified through screening and scoping processes. Recommendation included within SEA Environmental Statement.
Historic England requested that the historic environment be embedded into the objectives.	Objective E modified to " <i>Encourage vibrant communities by integrating streets, enhancing walking and cycling networks, and improving the natural, built and historic environment</i> "
Consultee objections to particular schemes including on basis of local environmental impacts .	Deletion of schemes including PR67, PR10 and PR95.

<b>Summary of comments</b>	<b>How the comments were taken into account</b>
Consultees noting gaps within the packages of schemes where the need and opportunity is recognised, and proposal is consistent with the Plan and package objectives.	Addition of some schemes including SM34, SM35, SM36 and PR111 to PR117.
Consultee comments suggesting lack of clarity on scheme scope and consistency with the Plan's objectives not being clearly communicated.	Changes in scheme descriptions to clarify the scope and intent.

### **Reasons for choosing the plan as adopted**

The South West Herts Growth & Transport Plan is a supporting document of the adopted Local Transport Plan (LTP4). The Growth & Transport Plans are a series of strategic transport plans which translate and apply the LTP objectives to defined areas with predominant urban and interurban travel movements - in this case parts of south west of Hertfordshire - through spatially focused objectives and packages of interventions that would help deliver LTP goals in the plan area.

The SWHGTP considered different approaches to address transport and growth challenges identified and the final packages combine those approaches and projects that the plan's assessment process identified as optimal in terms of delivering the plan's (and by extension the LTP's) objectives. However, the plan must be seen as a flexible framework and further development and delivery of its concept proposals must respond to changing circumstances, as well as being reliant on funding availability.

The following table details the processes that guided the development of the South West Herts GTP and the final set of objectives, packages and schemes.

<b>SWH GTP element</b>	<b>Process</b>
Geographic scope of the GTP	The area of the plan reflects data on predominant travel patterns and flows and locations of planned growth. This evidence suggested the need for 5 GTPs covering different areas in Herts. The evidence points to South West Herts as being an area that sees lots of movement including between the main towns of Watford, St Albans, Hemel Hempstead and neighbouring Luton, in addition with flows to London (inner and outer fringe). Significant growth was also planned including at Hemel Hempstead, Watford, Abbots Langley, St Albans and Harpenden. This is the reason for the SWH GTP covering the area it does. It does not cover all of the towns/settlements in Dacorum and Three Rivers having less significant growth planned in the current Local Plans.

<b>SWH GTP element</b>	<b>Process</b>
Evidence gathering and analysis to identify challenges that the GTP will address (2016)	<p>Transport evidence packs produced for towns to ground the SWH GTP in evidence on a range of topics including socio-demographics, economic portrait, transport network, and travel behaviour. Workshops with County and District Councillors and Officers to identify challenges for transport within the area that were considered important for the plan to address.</p> <p>Evidence Analysis paper produced.  <a href="https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-evidence-analysis-summary-paper.pdf">https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-evidence-analysis-summary-paper.pdf</a></p>
Strategy and Objectives of the GTP (2016)	<p>Workshops were held with County and District Councillors and Officers to present evidence and intelligence gathered and confirm a strategic direction.</p> <p>An Objectives Paper was produced (section 3 of this report details why these objectives were selected).  <a href="https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-objectives-paper.pdf">https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-objectives-paper.pdf</a></p>
Scheme Ideas (2016)	Workshops with County and District Councillors and Officers to confirm objectives and generate scheme ideas that would support delivery of the objectives in target growth areas and corridors.
Scheme Assessment (2017)	<p>Development of an assessment framework to assess the performance of schemes against the confirmed SWH GTP objectives and other criteria around deliverability.</p> <p>All scheme ideas were assessed using the framework to inform which schemes would be included and which approaches were preferred on the basis of fit with objectives.</p> <p>Intervention Ideas Paper produced which provides a toolkit of potential types of interventions that could be used to address the challenges in the GTP area. Section 4 of this report includes SWOT analysis which highlights potential Strengths, Weaknesses, Opportunities and Threats associated with each scheme type.</p>
Draft version SWH GTP (2017)	<p>Engagement with County and District key officers, Members and key stakeholders (Highways England and the Herts LEP) on draft version of the prospectus - including presentations, meetings and invitation of comments in writing.</p> <p>The SWH GTP Prospectus includes the narrative behind the objectives as selected and provides</p>

SWH GTP element	Process
	reasoning and justification for decisions made including which schemes are included and why particular approaches are considered preferable from a range of alternatives. This is in the interest of transparency, to give flexibility and ensure opportunities aren't lost, but also to ensure that future development and implementation of schemes recognises the original rationale and objectives underpinning it.
Consultation version SWH GTP (2018)	Public consultation on the consultation version of the SWH GTP. The consultation process and materials including the consultation version of the SWH GTP were reviewed and agreed by HCC's Growth, Infrastructure, Planning & Economy Cabinet Panel.
Consultation response analysis and revision and finalisation of the SWH GTP (2019)	All consultation responses were analysed, and feedback and comments considered. Where considered justified and in line with the overarching objectives of the SWH GTP, amendments have been made. A summary report of the consultation results was produced ( <a href="https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-summary-consultation-report.pdf">https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-summary-consultation-report.pdf</a> ). Significant proposed changes and the consultation report were reviewed and approved by HCC's Growth, Infrastructure, Planning & Economy Cabinet Panel (12 March 2019).

The South West Herts GTP is not intended to prescribe a rigid forward programme of works, but to act as a decision-making guide to steer future direction of investment and prioritisation in transport. As far as possible, the GTP provides a flexible decision-making framework built upon currently available evidence and forecasts, and it should evolve in response to changing factors.

It is recognised that interventions are only defined at a broad, conceptual level of detail and therefore more detailed work may reveal important changes to interventions, or alternative interventions, which could also achieve the same aim and goals of each Package.

There are many unknowns that will influence the implementation of the South West Herts GTP's proposals and vision:

- the availability of funding;
- scale, location and build-out of planned development;
- travel behaviour;
- development and take-up of innovative new transport technologies;

- social, economic and environmental factors.

These could all exert an influence on future decision making.

## SEA Monitoring

Monitoring for the Growth & Transport Plans will be incorporated within the SEA monitoring undertaken for LTP4.

It is anticipated that the monitoring and review for the LTP4 SEA will be annual and will be reported as a separate SEA Monitoring Report. Monitoring of the SW Herts GTP SEA will be included within this LTP4 SEA Monitoring Report. This process will also consider wider monitoring of environmental effects using the indicators in the Environmental Baseline.

The SEA has highlighted a number of key areas of concern that will need monitoring, throughout the delivery of the GTP, for indicators and data that are showing worsening trends, or are consistently not meeting targets. These areas are:

- Road congestion – specifically urban traffic in peak hours, and the rise in car ownership figures;
- The need to limit carbon dioxide, and nitrous oxide emissions;
- Air quality and the number of Air Quality Management Areas (AQMAs);
- Noise pollution;
- Childhood obesity exacerbated by lack of active travel.

The SEA also identified a number of baseline data gaps, these will need to be considered through the monitoring process to ensure that a full baseline picture is established and monitored. The gaps include:

Baseline Gap
There is limited baseline data for the SEA objective ‘to move away from waste disposal to minimisation, reuse, recycling and recovery’.
There are no indicators/data on the SEA Objective ‘to reduce contamination, and safeguard soil quality and quantity’.
There are no indicators/data on the issue of adaptation to climate change i.e. dealing with greater flooding incidences.
There is limited baseline data available for the SEA Objective ‘to ensure the sustainable supply and use of energy’.
Perception of accessibility data.
There are no indicators/data available for the SEA Objective ‘to maintain the vitality and viability of existing centres’.
Confirmation needed from the Environmental bodies on definitions for biodiversity sites and heritage assets.

From the assessments of the 9 packages the following was highlighted as needing monitoring once the South West Herts GTP is adopted and delivery and implementation starts:

- It is recommended that any 20mph zone implemented is monitored to determine impacts on air quality and emissions, as current data is minimal. Approach the relevant District/Borough air quality officer to see what air quality data is collected in each 20mph zone delivered.
- Monitor promotion and marketing for any new schemes delivered, as this is key to the uptake of any new sustainable transport provision, particularly if there has been targeted/tailored promotion i.e. employees of industrial areas. Any promotion or marketing will be subject to resource available at the time.
- Any changes to business or school travel plans as a result of the schemes delivered.
- The integration of the Hertfordshire Hate Crime Strategy in the policy level, rather than individual transport schemes in the plan area, for example issues of Hate Crime should be considered in the LTP4 Intalink Bus Strategy.
- Monitor HCCs emerging policies on Electric Vehicles and charging and the impacts this could have on the plan area i.e. impacts of the proposed Intelligent Mobility Strategy.

No additional monitoring is proposed for the South West Herts GTP specifically, however it is likely there will be periodic reviews of the plan itself as well as updates of the transport evidence packs for towns in the area, which will help identify changes in the transport network, network conditions and transport behaviours.

## **NON-TECHNICAL SUMMARY**

### **Introduction**

This section is the Non-technical Summary of the Environmental Report for the South West Hertfordshire Growth & Transport Plan. The Environmental Report sets out the results of the Strategic Environmental Assessment (SEA) of the SW Herts GTP. The purpose of the Environmental Report is to give consultees information on the potential environmental and sustainability effects of the SW Herts GTP and to assist the County Council in improving the quality of the final GTP.

### **The SEA Process**

Certain plans, including LTP's and their supporting documents, have been deemed by the Government to automatically require a SEA. The Local Transport Plan 4 underwent a full SEA in line with requirements of the SEA Regulations (Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004). Growth & Transport Plans are supporting documents of LTP4 and are developed in line with its policies; however, as the GTPs put forward area-specific objectives and scheme concepts that build on the content of LTP4, further assessment of the likely significant effects and cumulative impacts of these will be necessary for all Growth & Transport Plans. The SEA topics and objectives are the same as LTP4, however the baseline environmental information is reviewed for each plan area to ensure appropriate assessment, mitigation and monitoring is established.

This SEA has been carried out by officers of Hertfordshire County Council using the following guidance documents:

- A Practical Guide to Sustainability Appraisal & Habitats Regulations Assessment (Oct 2012, LUC);
- ODPM, A Practical Guide to the Strategic Environmental Assessment Directive (Sept 2005)

### **The South West Hertfordshire Growth & Transport Plan**

Hertfordshire is facing significant levels of housing and employment growth, which is expected to have an impact on the county's local and strategic transport systems and networks. Hertfordshire County Council has developed a new approach to planning for the short-, medium- and long-term transport needs, and has adopted a new Local Transport Plan (LTP4), which sets out the overarching direction of transport policy and priorities across Hertfordshire.

The Growth & Transport Plan is a new approach to sub-county transport planning, more in alignment with this planned future housing and employment growth and based on evidence. It applies Local Transport Plan policies and objectives to a

growth-focused sub-area, defined on the basis of travel and growth patterns. The South West Hertfordshire GTP is the first of 5 to be developed for the county.

The main elements of the GTP include:

- The policy context and relationship between the GTP, Local Transport Plan and district and borough Local Plans;
- Spatial portrait summarising the key evidence on transport, movement, economic development and socio-demographics in the plan area;
- Summary of the main growth and transport challenges in South West Hertfordshire;
- Objectives developed specifically for this GTP;
- Packages of proposed transport interventions and approaches to address the growth and transport challenges and meet the objectives of the GTP.

The parts of South West Hertfordshire covered by this plan include the principal towns Watford and Hemel Hempstead, but the plan also considers linkages to St Albans and smaller, separate settlements including Rickmansworth and Harpenden. (but not Tring or Berkhamsted).

### Other Appraisals

The Conservation of Habitats and Species Regulations 2010 (SI 2010/490) provides legal protection for habitats and species of European importance (Natura 2000 sites). The regulations require that any plan or programme that is likely to have a significant effect on a European site is subject to HRA. This is not required for the SW Herts GTP as the plan area is not close to a designated Natura 2000 site.

The County Council has produced an Equalities Impact Assessment for the South West Herts Growth & Transport Plan which is published alongside the adopted GTP.

A Health Impact Assessment was not undertaken prior to finalisation and adoption of the South West Herts GTP, as the internal processes/toolkit were still being developed. This SEA does include an objective that considers health impacts both physical and mental.

### Main SEA Findings

This Environmental Report details in Section 5 the effects of the interventions contained in the 9 proposed packages in the SW Herts GTP. Any potential or significant negative impacts on the SEA Objectives and recommendations/mitigations are highlighted in the assessments. Alternatives were considered for a number of schemes and these alternatives were assessed. The reasonings for choosing the preferred approaches for these schemes can be found in the final GTP Prospectus (Section 6).

This Strategic Environmental Assessment has concluded that overall, there would be no significant negative impacts on the environment in the Plan area as a result of the delivery of the SW Herts GTP. The emphasis of the South West Herts Growth & Transport Plan is to promote modal shift to non-motorised modes and public transport, reducing car dependency which should have fewer negative impacts on the environment compared to car travel.

The SEA has identified some significant negative impacts for some of the road infrastructure schemes proposed (i.e. new links, major junction improvements etc.) as these schemes if not carefully designed could facilitate car use, further detailed environmental assessments would need to be undertaken i.e. EIA.

Assessments have highlighted that public realm enhancements score highly with positive impacts on SEA objectives. However, passenger transport schemes should be mindful of personal security and the need for the GTP to consider Hate Crime issues. Recommendations include, that promotion is key to achieve maximum levels of modal shift for any sustainable transport schemes, and that HIAMP practices/policies are revisited to determine the current policy on the use of recycled/local construction materials and the recycling of construction waste. A checklist of other issues should always be considered for all contracted works (light pollution, drainage issues, soil removal/reuse, historic assets and flooding maps)

This SEA assessment has also considered the cumulative impacts of the delivery of 9 packages of interventions. No significant negative cumulative impacts have been identified overall, but the GTP would need to carefully monitor the delivery of major road infrastructure as some schemes could facilitate car use and therefore contribute to traffic growth and congestion impacting on local habitats, air quality and emissions and on the landscape/townscape.

A monitoring framework is required to show how any mitigation measures are being implemented as the plan is delivered, and how any recommendations are being considered. This SEA has also highlighted that there are a number of gaps in the availability of the baseline data against the SEA objectives, these will need to be investigated and researched as part of the monitoring process. Interpretation of the baseline data has also shown that a number of key areas will need monitoring over the lifetime of the GTP i.e. congestion, emissions, air quality, noise and childhood obesity.

# **1. INTRODUCTION**

## **1.1 This Report**

This report sets out the results of the Strategic Environmental Assessment (SEA) of the South West Herts Growth & Transport Plan (SWHGTP) – a supporting document of Hertfordshire's Local Transport Plan 4 (LTP4). The South West Herts Growth & Transport Plan was subject to public consultation July to September 2018. Following amendments as a result of the consultation, the South West Herts Growth & Transport Plan was adopted by Hertfordshire County Council in March 2019.

The purpose of this report has been to:

- Give stakeholders and the public information on the potential environmental and sustainability effects of the draft South West Herts Growth & Transport Plan to aid their consideration of the plan during its consultation;
- Assist Hertfordshire County Council in improving the final South West Herts Growth & Transport Plan and future implementation of the plan by highlighting where there are potential environmental and sustainability effects resulting from the plan or its proposals

## **1.2 The SEA Process**

The European Directive 2001/42/EC requires certain plans to be subject to a Strategic Environmental Assessment. This Directive is realised in the UK through Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004 (otherwise known as the SEA Regulations). These Regulations require an environmental assessment to be carried out on certain plans and programmes prepared by public authorities that are likely to have a significant effect upon the environment.

SEA extends the assessment of environmental impacts from individual development projects to regional, county and district level plans. Strategic Environmental Assessment is a systematic way to examine (and where necessary suggest ways to reduce) the likely effects of a plan on environmental, social and economic objectives.

SEA is a tool to ensure the integration of environmental and sustainability considerations into the plan and decision-making process.

Certain plans, including LTP's and their supporting documents, have been deemed by the Government to automatically require a SEA. The Local Transport Plan 4 underwent a full SEA in line with requirements of the SEA Regulations. A scoping exercise to identify the topics to be covered and establishing a baseline of environmental information for Hertfordshire was undertaken for the LTP4. Growth & Transport Plans are supporting documents of the LTP4 and are developed in line with its policies; however, as the GTPs put forward area-specific objectives and scheme concepts that build on the content of LTP4, further assessment of the likely

significant effects and cumulative impacts of these will be necessary for all Growth & Transport Plans. The SEA topics and objectives are the same as LTP4, however the baseline environmental information is reviewed for each plan area to ensure appropriate assessment, mitigation and monitoring is established.

### **1.3 Related processes to SEA**

A number of parallel assessment processes were undertaken at the same time as the SEA.

#### **Habitats Regulation Assessments (HRA)**

The Conservation of Habitats and Species Regulations 2010 (SI 2010/490) provides legal protection for habitats and species of European importance (Natura 2000 sites). The regulations require that any plan or programme that is likely to have a significant effect on a European site is subject to HRA. The regulations state that 'the plan-making authority for that plan shall, before the plan is given effect, make an appropriate assessment for the implications for the site in view of that site's conservation objectives'.

The County Council is therefore required to assess any Growth & Transport Plans through the HRA process as the packages of interventions could potentially affect Natura 2000 sites. The County Council has decided not to undertake a detailed HRA screening assessment as the South West Herts GTP area is not close to a designated Natura 2000 site. The nearest site is the Chilterns Beechwoods SAC, which is to the east of Tring. This site should not be directly or indirectly affected by any of the proposals as Berkhamsted and Tring are outside of the GTP area.

#### **Equality Impact Assessment (EqIA)**

Local authorities have a duty under race, disability and gender legislation to carry out an EqIA of their LTP and supporting documents. EqIA can determine how a plan may affect different groups of people. Government guidance advises that an EqIA encompasses race, gender, disability, age, religion/belief and sexual orientation. The County Council has produced an EqIA for the South West Herts Growth & Transport Plan which will be published alongside the adopted GTP and monitored regularly.

#### **Health Impact Assessment (HIA)**

HCC has developed a process to undertake Health Impact Assessments on new plans and policies. However, as the county council's HIA process was not yet in use, a Health Impact Assessment was not undertaken prior to finalisation and adoption of the South West Herts GTP. The SEA does include an objective that considers health impacts both physical and mental.

## **1.4 Why do we need a South West Herts Growth & Transport Plan?**

Hertfordshire is facing significant levels of housing and employment growth, which is expected to have an impact on the county's local and strategic transport systems and networks. Delivering economic growth has become one of the UK Government's main priorities. However, this is in a context of increasing competition for funding to help invest in new infrastructure, with less money available for local authorities to spend on local services and infrastructure.

The transport needs of large-scale residential and employment development coming forward within Hertfordshire and surrounding areas may be reliant on seeking vital funding from Central Government and other sources. A good case will need to be made for investment which is based on robust evidence and positive collaborative planning.

With this in mind, Hertfordshire County Council has developed a new approach to planning for the short-, medium- and long-term transport needs. The county council has adopted a new Local Transport Plan (LTP4), which was subject to consultation over the winter 2017-18. The LTP4 sets the overarching direction of transport policy and priorities across Hertfordshire.

In the past, the County Council has produced Urban Transport Plans - usually for individual towns. However, the UTP approach to transport planning doesn't allow a fuller understanding of transport issues in an area derived from a more extensive review of evidence. Without a more strategic view of the transport issues, UTPs have tended to identify smaller-scale interventions which may not be the most effective means of tackling the root causes of challenges occurring over a wider geographical area.

The Growth & Transport Plan is a new approach to sub-county transport planning, more in alignment with planned future housing and employment growth and based on evidence. It applies Local Transport Plan policies and objectives to a growth-focused sub-area, defined on the basis of travel and growth patterns. This is helping to lead towards a more joined-up approach to transport planning.

In line with the new draft Local Transport Plan 4, the GTP also has a focus on the role of transport in improving the health of the population and the quality of the environment. Local authorities have a duty to take proactive steps towards improving the health of local people. HCC's Public Health unit has an increasingly integrated role within the authority's wider functions and works with other services on matters such as development and transport, which have implications for health through air quality, levels of physical activity, access to work and social inclusion, for instance. Increasing physical activity and promoting healthy and active lifestyles is a priority in the Hertfordshire Public Health Service Strategy (2017-21).

The South West Herts Growth & Transport Plan is the first of a suite of GTPs which will cover different sub-areas of Hertfordshire with the intention of promoting modal shift to non-motorised and public transport, providing greater modal choice and facilitating growth sustainably. The GTPs are being developed by Hertfordshire County Council in partnership with key stakeholders including local district and borough councils and the Hertfordshire Local Enterprise Partnership.

### **1.5 Public Consultation**

The draft South West Herts Growth & Transport Plan was subject to public consultation in summer 2018. The draft SEA Environmental Report was provided online for consultees alongside the draft South West Herts GTP should they wish to review or provide comment on it. Consultation communications targeted some key stakeholders to increase the likelihood of receiving responses from these (i.e. district/borough councils, Network Rail, Highways England, transport operators, SEA bodies). The three environmental bodies were contacted by email to notify of the consultation and invite their participation, however only Historic England responded with comments.

The consultation attracted a high number of responses, mainly from people resident in the plan area as well as some key stakeholders. Very few comments were about the SEA itself, but participants did comment on aspects that would be relevant to the environmental and social impacts of its proposals as well as the overarching objectives of the plan.

A report summarising the findings of the public consultation exercise was produced and published on the county council's website in association with the adoption process.

A number of changes were made to the South West Herts GTP as a result of the consultation and recognition of gaps in the strategy. The South West Herts GTP including these changes was adopted by the County Council in 2019.

### **1.6 SEA Environmental Statement**

A SEA Environmental Statement has been produced reporting how the findings of the SEA and consultation results have been taken into account and can be found at the beginning of this report. This SEA Statement will be made available online alongside the final South West Herts GTP documents. It covers:

- How environmental considerations have been integrated into the South West Herts GTP;
- How the Environmental Report has been taken into account;

- How the opinions and consultation responses have been taken into account, including showing how the plan has been changed, or why no changes were made;
- The reasons for choosing the South West Herts GTP chosen route as adopted in the light of other reasonable alternatives dealt with; and
- The measures that are to be taken to monitor the significant environmental effects of implementation of the South West Herts GTP.

## **2. SOUTH WEST HERTS GROWTH & TRANSPORT PLAN**

The South West Herts Growth and Transport Plan is a strategic transport plan which translates and applies Local Transport Plan objectives to the south west of Hertfordshire – an area which includes the towns of Hemel Hempstead and Watford as well as their interactions with St Albans, Luton and the London fringe. The plan area reflects the strong travel and movement patterns and flows within and between these places.

Growth & Transport Plans are not meant to be constrained by county or district boundaries, as people's journeys are not constrained by them. The study area of a GTP reflects the predominant urban and interurban travel movements, the location of current and future transport challenges and where significant employment and housing growth is planned.

### **2.1 Outline of the Plan's Contents**

The South West Herts Growth & Transport Plan comprises a portfolio of documents:

- Prospectus - the main document of the Plan
- Town Evidence Packs: Watford area, Hemel Hempstead, St Albans
- Evidence Analysis Paper
- Objectives Paper
- Intervention Ideas Paper
- Economic Impacts Paper
- SEA Environmental Statement

The South West Herts GTP Prospectus provides an overview of the whole plan:

- The policy context and relationship between the GTP, Local Transport Plan and district and borough Local Plans.
- Spatial portrait summarising the key evidence on transport, movement, economic development and socio-demographics in the plan area.
- Summary of the main growth and transport challenges in South West Hertfordshire, which are the focus of the GTP.
- Objectives developed specifically for this GTP, and which have guided the process, consideration of the challenges and formulation and assessment of proposed transport interventions.
- Packages of proposed transport interventions and approaches to address the growth and transport challenges and meet the objectives of the GTP.
- Appendices:
  - Intervention Schedule and Assessment – Preferred Combination
  - Intervention Objective Scoring
  - Scheme Approach Selection and Packaging

- Supplementary Note - Dome Roundabout
- Area-wide Interventions and Sustainable Development Principles

To support residents, businesses and other interested parties to take part in the consultation, a Consultation Summary was also produced. This summarised the key parts of the South West Herts GTP including the objectives and proposed packages of transport schemes and projects, and sign posted to the portfolio of GTP documents for further information. The consultation document included the consultation questions.

## 2.2 South West Herts Area Profile

The parts of South West Hertfordshire covered by this plan include all or large parts of Watford borough, Dacorum borough and Three Rivers district, along with smaller parts of St Albans district and Hertsmere borough. The principal towns within the plan area are Watford (as well as adjoining settlements including Abbots Langley, South Oxhey and Bushey) and Hemel Hempstead. The plan also considers linkages to St Albans and smaller, separate settlements including Rickmansworth and Harpenden. The plan does not cover Tring, Berkhamsted or nearby settlements.

**Watford** is an under-bounded urban borough, on the north western edge of Greater London. Watford is strongly influenced by London which brings both economic advantages and challenges for the borough. Watford town centre is a regional centre with a large retail offer. The large Intu Watford shopping centre was extended as a major redevelopment in the town centre and opened at the end of 2018. Challenges for Watford are around maintaining the regional role of the town, providing good jobs and providing attractive, well connected places to live. Major development areas in the borough are located at Watford Junction, along Clarendon Road, the town centre, the business parks west of Watford and the Watford Riverwell site near the hospital (formerly known as the Watford Health Campus).

**Dacorum** is a more rural borough located north of Watford and extending to the Chiltern Hills. Almost 85% of the borough is rural with large parts in the Metropolitan Green Belt and parts in the Chiltern Hills Area of Outstanding Natural Beauty.

**Hemel Hempstead**, its largest town, is a Mark 1 New Town developed in the 1950s and 1960s. The town will continue to be a focus for development and regeneration within the borough. A programme of regeneration has been underway in the town centre and the borough has plans for redevelopment of the Two Waters area between the town centre and Hemel Hempstead and Apsley train stations. The large **Maylands** industrial and business area is located on the eastern edge of Hemel Hempstead, and is part of the **Hertfordshire Enviro-Tech Enterprise Zone**. Continuing housing and employment development is expected at Maylands and beyond in the area to the east of Hemel Hempstead in the coming decades.

Dacorum also includes the market towns of Tring and Berkhamsted, and a number of villages.

**Three Rivers** is a semi-rural/semi-urban district encircling much of Watford borough. It includes the town of **Rickmansworth** and smaller settlements including **Croxley Green, Abbots Langley, South Oxhey, Carpenders Park, Eastbury and Moor Park**. Warner Bros. Leavesden Studios (home of the Harry Potter Studio Tour) is located in the district near Abbots Langley, with the former Leavesden Aerodrome site having been a major housing development location in recent years. Major redevelopment and regeneration is underway at South Oxhey as a significant investment project for the district. On the immediate border with western Watford, **Croxley Park** and the industrial parks along Tolpits Lane are a key employment location in the district.

**Hertsmere Borough** is located to the east and south-east of Watford. Only a small part of the borough to the west of the M1 is covered by this GTP – most notably **Bushey**.

St Albans district lies to the east of Dacorum and north east of Watford, and includes the city of **St Albans**, the town of **Harpenden** and smaller settlements including **Redbourn, Bricket Wood** and **Park Street**. The South West Herts GTP is mainly concerned with linkages between the district and the rest of the south west Herts area.

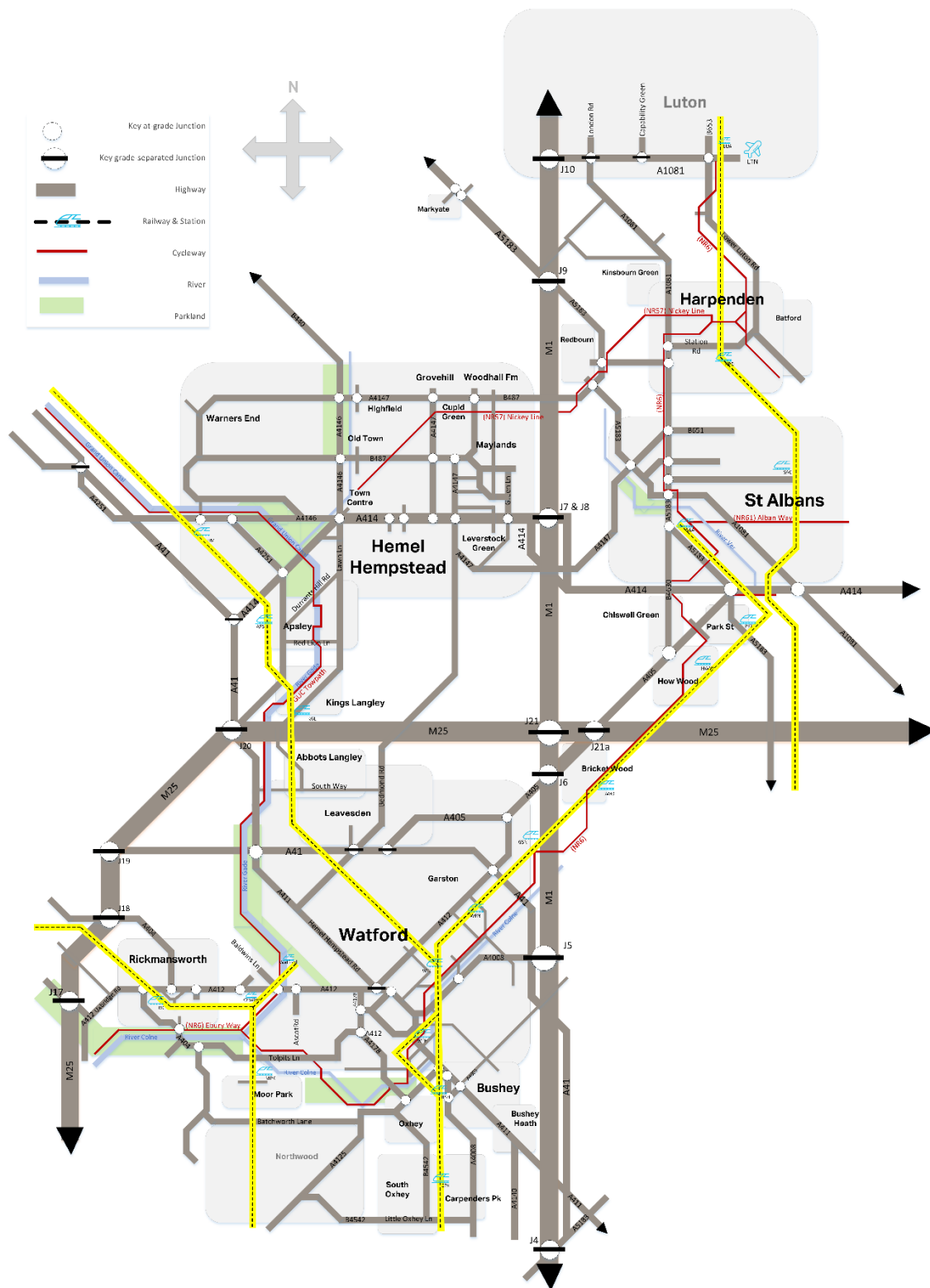
### **Transport network**

The area is dissected by several major roads. The **M1** cuts north-south east of Watford and Hemel Hempstead. The M1 in this area serves local and sub-regional journeys such as between Luton, Hemel Hempstead and Watford, as well as longer distance journeys. The **M25** divides Watford from Hemel Hempstead and St Albans, acting as a local distributor route as well as serving longer distance journeys.

Primary roads in the area are the **A41** linking Aylesbury, Tring, Berkhamsted, Hemel Hempstead, Watford and northern London, and the **A414** – an east-west route crossing Hertfordshire, serving a mix of shorter and longer journeys. The A414 cuts through Hemel Hempstead finally joining the A41 to the west of the town. Other main roads are the A405 (St Albans to Watford and M1-M25 link), A5183 (Watling Street), B440 (Leighton Buzzard to Hemel), A4147 (St Albans to Hemel), A4251 (Berkhamsted, Apsley and Kings Langley main high streets), A412 (Rickmansworth to Watford), A4008 (Harrow to Watford to M1), A411 (Watford to Bushey and Borehamwood).

The main rail line is the **West Coast Main Line** connecting London, Milton Keynes, Birmingham and the West Midlands, North West England and Scotland. High speed services call at Watford Junction, and local services at stations including Hemel

Hempstead, Apsley, Kings Langley and Bushey as well as Watford Junction. Services run from Hemel Hempstead and Watford Junction to East Croydon via the West London Line. The **Aylesbury to London line** serves Rickmansworth and Chorleywood. **London Underground Metropolitan Line** runs from Watford Met station, via Croxley and Moor Park. **London Overground** serves Watford Junction, Watford High Street, Bushey and Carpenders Park. The **Abbey Line** runs between Watford Junction and St Albans Abbey stations via Garston, Bricket Wood and Park Street. The Midland Main Line runs to the east of this South West Herts GTP area linking London, Luton, Bedford and the East Midlands, via Harpenden, St Albans and Radlett. Watford Junction is the busiest railway station in Hertfordshire.



**FIGURE 2.1 - SOUTH WEST HERTS AREA TRANSPORT NETWORK**

A wide range of bus services serve routes within and between towns in South West Hertfordshire. Longer distance local services include the **300/301** (Hemel Hempstead to Stevenage via St Albans and Hatfield), **320** (Rickmansworth to Hemel via Watford), **321** (Watford to Luton, via St Albans and Harpenden), **500/501** (Watford to Aylesbury via Kings Langley, Hemel Hempstead and Tring), **142** (Watford to Brent Cross via Bushey), **258** (Watford to South Harrow), **46** (Hemel Hempstead to Luton) and **724** (Heathrow Airport to Harlow via Watford and St Albans). Some express coach services also route through the area, including the 755/757 Luton to London via Bricket Wood and 748/758 Hemel Hempstead to London.

Parts of the National Cycle Network (NCN) route through the area, including **NCN route 7** connecting Hemel Hempstead, Redbourn and Harpenden as the Nickey Line; and **NCN route 6/61** linking Rickmansworth, Watford and St Albans as the Ebury Way and Abbey Way/Colne Valley Way, continuing to Harpenden and Luton (route 6) and Hatfield, Welwyn Garden City and Hertford (route 61) (Alban Way and Cole Green Way).

The Grand Union Canal flows through the area, providing navigable waterway and walking and cycling along the canal towpath, linking Tring, Berkhamsted, Kings Langley, Watford, Croxley Green and Rickmansworth, and onwards towards Uxbridge and London.

Rivers in the area include the River Colne (a tributary of the Thames) and its upstream tributaries the Rivers Ver, Gade, Bulbourne and Chess – chalk streams originating from the Chiltern Hills.

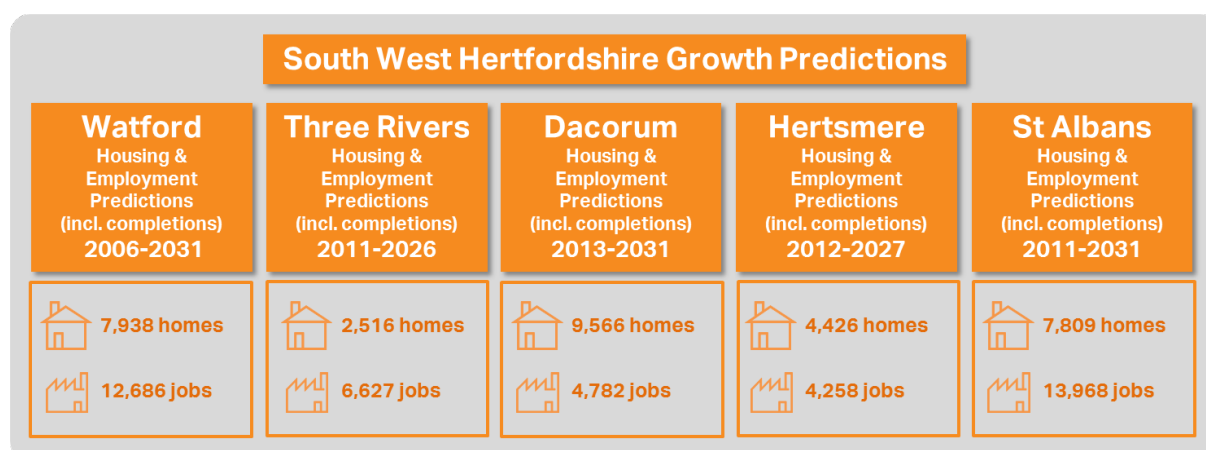
As part of the GTP process, Evidence Packs have been produced for the Watford Area, Hemel Hempstead and St Albans. These present further information, primarily in a visual format on the geography, community and economic characteristics, transport network and travel patterns for these particular areas.

### **South West Hertfordshire growth**

Planned housing and employment growth is identified by the Local Planning Authorities (which in Hertfordshire means the district and borough councils) in their Local Plans. These set out local planning policies, identify how land should be used and determine the type and quantity of development to be built where and when. Local Plans are produced on a cycle. Most of the South West Herts boroughs and districts have an adopted Local Plan to 2031, but are in the early stages of producing new Local Plans which will look beyond 2031. The South West Herts local planning authorities are revising their Local Plans and are also at the early stages of developing a Joint Strategic Plan to plan strategic development needs further ahead. It is however recognised that the South West Herts local planning authorities are

expected to establish substantially higher housing targets in the forthcoming Local Plans, but for the purposes of this GTP, the growth plans are taken from the adopted Local Plans.

Across all of the districts, it is estimated that over 32,000 new homes will be built and over 42,000 new jobs could be created by 2031. Key development sites include the Radlett Rail Freight Interchange, Watford Riverwell, Watford Western Gateway, West Hemel Hempstead, East Hemel Hempstead and the Enviro-tech Enterprise Zone including Maylands.



**FIGURE 2.2 – LOCAL PLAN – DISTRICT-LEVEL GROWTH TO 2031**

### **Community and Economic portraits**

Evidence Packs have been produced for St Albans, Hemel Hempstead and the Watford area, which provide an economic portrait and describe the community characteristics of these areas.

Herts Insight is an interactive online resource that brings together and presents a variety of social, economic and demographic information on Hertfordshire communities at different geographies.

**TABLE 2.1: SOUTH WEST HERTS DEMOGRAPHIC & SOCIO-ECONOMIC INFORMATION**

	Dacorum	St Albans	Three Rivers	Watford	Hertfordshire
<b>Population density <sup>1</sup></b>	7.17 people/ha	9.12 people/ha	10.44 people/ha	45.10 people/ha	7.16 people/ha
<b>Age profile <sup>1</sup></b>	Similar to Hertfordshire generally. Fewer 15-24yo Slightly more 50-64yo	More 0-16yo Fewer 20-35yo More 35-50yo Slightly fewer over 50yo	Fewer 0-4yo Fewer 20-35yo Slightly more over 40yo ... otherwise similar to	More 0-9yo More 25-45yo Fewer over 50yo ... relative to Hertfordshire overall	More 0-15yo Fewer 15-25yo More 35-55yo Less 60-80yo ... relative to England overall

	<b>Dacorum</b>	<b>St Albans</b>	<b>Three Rivers</b>	<b>Watford</b>	<b>Hertfordshire</b>
	...relative to Hertfordshire overall	... relative to Hertfordshire overall	Hertfordshire overall		
<b>Males % <sup>1</sup></b>	49.15%	48.91	48.65%	49.48%	48.97%
<b>Females % <sup>1</sup></b>	50.85%	51.09%	51.24	50.52%	51.03%
<b>White British (%) <sup>2</sup></b>	85.98%	81.15%	79.62%	61.88%	80.82%
<b>Non-white (%) <sup>2</sup></b>	9.2%	11.6%	13.8%	28.1%	12.4%
<b>Working age population <sup>1</sup></b>	96,200	90,000	57,100	63,000	740,000
<b>Working age population % <sup>1</sup></b>	63.12%	61.22%	61.6%	65.22%	62.90%
<b>Economically active % <sup>2</sup></b>	74.51%	74.66%	74.12%	76.59%	74.23%
<b>Unemployed (%) <sup>2</sup></b>	3.67%	2.72%	3.18%	4.06%	3.51%
<b>Economically inactive (%) <sup>2</sup></b>	25.49%	25.34%	25.88%	23.41%	25.77%
<b>Under 16s living in poverty % <sup>3</sup></b>	11%	7.1%	8.7%	10.9%	10.5%
<b>No car households <sup>2</sup></b>	16.4%	13.5%	14.2	22.2%	16.9%
<b>1 car households <sup>2</sup></b>	41.4%	42.9%	39.9%	45.3%	42.2%
<b>2 car households <sup>2</sup></b>	31.9%	33.8%	33.9%	25.4%	30.9%
<b>3 car households <sup>2</sup></b>	7.3%	7.1%	8.6%	5.3%	7.2%
<b>4 or more car households <sup>2</sup></b>	2.9%	2.6%	3.5%	1.9%	2.8%

NOTES: **1** = 2016 mid-year population estimate; **2** = 2011 Census; **3** = 2016 HMRC

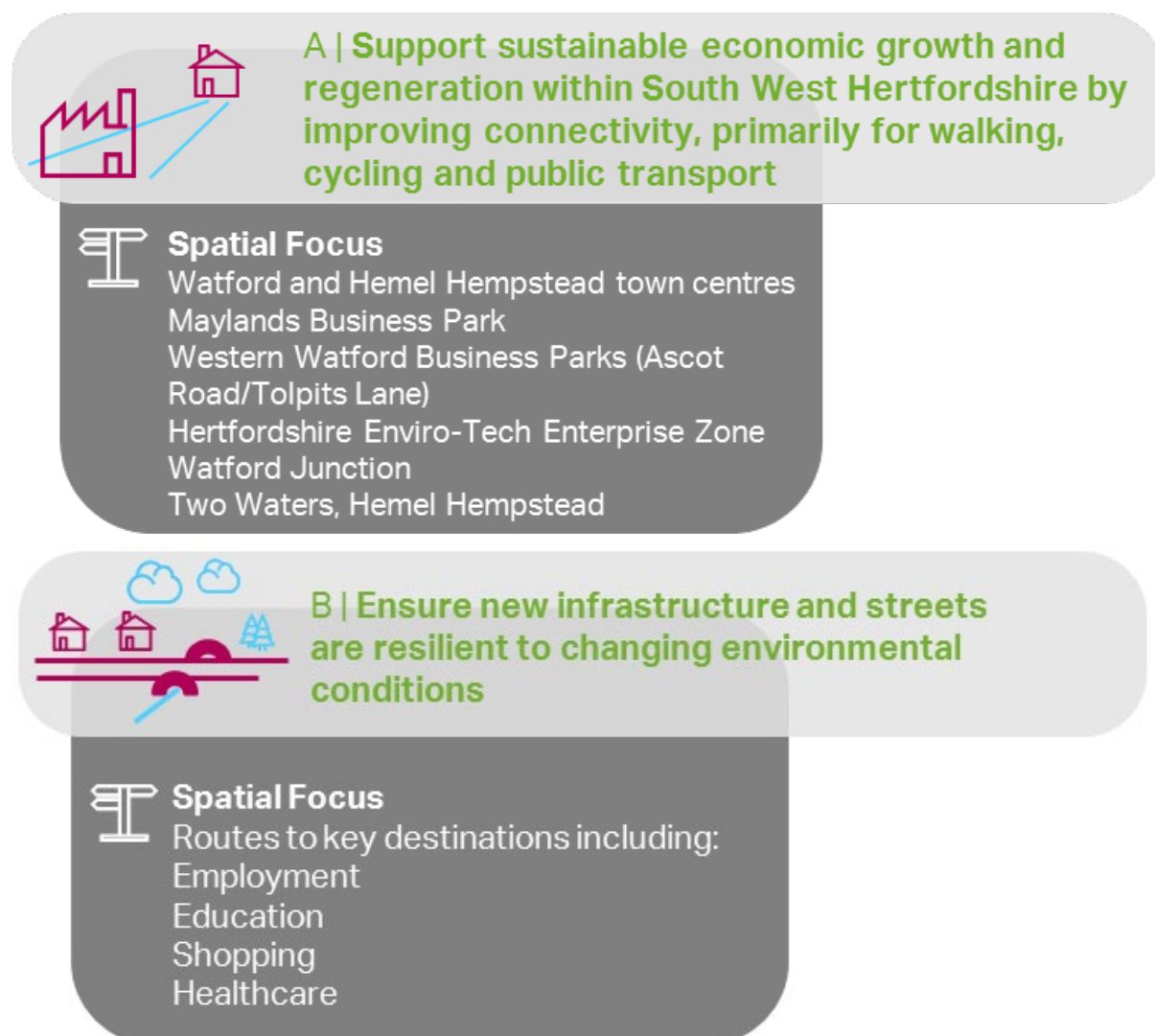
### 2.3 Objectives of South West Herts Growth & Transport Plan

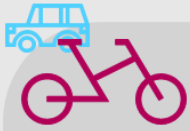
Objectives for the SW Herts Growth & Transport Plan have been developed based on the transport challenges for the area (identified in the plan) and reflect the characteristics of the settlements and the local transport network in South West

Herts. The objectives align with Hertfordshire's Local Transport Plan, the District and Borough adopted Local Plans and Hertfordshire Local Enterprise Partnership's Strategic Economic Plan.

A set of seven objectives are defined in the South West Herts GTP. Each objective has a spatial focus, indicating areas where it is considered that addressing the transport challenges through suitable packages of interventions would bring about the most benefit.

**FIGURE 2.3 - SOUTH WEST HERTFORDSHIRE GTP OBJECTIVES**





**C | Improve accessibility and network resilience, and achieve a shift to more efficient modes of travel by providing a greater choice of attractive, integrated alternatives to the private car**



**Spatial Focus**

This objective focuses on movements within and between urban centres of up to twelve miles, in particular along the following routes:

Hemel Hempstead-Watford

Watford-St Albans

Rickmansworth-Watford

Watford-Bushey-South Oxhey-Carpenders Park



**D | Improve public health and quality of life, through encouraging and enabling active travel and reducing transport-generated air and noise pollution**



**Spatial Focus**

Neighbourhoods and town centres, in particular around designated Air Quality Management Areas (AQMAs).



**E | Encourage vibrant communities by integrating streets, enhancing walking and cycling networks, and improving the natural, built and historic environment**



**Spatial Focus**

Neighbourhoods and town centres

Major new development



**F | Improve safety and perception of safety and security risks by providing high quality and safe facilities for walking, cycling and public transport users**



**Spatial Focus**

Routes to key destinations including:  
Employment  
Education  
Shopping  
Healthcare



**G | Seek to reduce transport related emissions by embracing new technologies and encouraging sustainable travel modes**



**Spatial Focus**

Congested urban areas.

### **3. BASELINE DATA & KEY ISSUES IN SOUTH WEST HERTS**

The SEA Directive requires environmental baseline data to be assembled. Collection of such information allows environmental problems to be established, but this information gathering exercise is not to be a snapshot of the current situation, but should show trends and be kept updated for future plans. Under the Directive it is also required to consider the evolution of the environment without the plan, and the baseline appendix (Appendix 1) includes a column to describe what might happen to each of the baseline issues if the SW Herts GTP was not implemented.

Baseline data was collected for each of the SEA objectives, and this was mainly in the form of performance indicators. The data was then grouped under the 8 SEA topics as set out in the SEA Directive.

The majority of data was collected from published and internal County Council documents. Sources included in the current Local Transport Plan and Traffic & Transport Data Report, the Hertfordshire County Council Corporate Plan 2017-2021 and Herts Insight Data & Information System. Data was also collected from official external websites.

#### **3.1 Difficulties encountered in the Collection of Information**

When collecting the baseline information, there were gaps in the availability of existing data within the county for the following SEA objectives:

- To protect and enhance biodiversity;
- To improve the sustainable use of resources;
- To move away from waste disposal to minimisation, reuse, recycling and recovery;
- To adapt to the impacts of climate change such as flooding;
- To ensure the sustainable supply and use of energy (no data available for Hertfordshire);
- Current perception of transport access issues (former Environment Telephone Survey has ceased);
- Difficulty accessing current data on noise complaints;
- Difficulty accessing current data on conservation areas. Further advice is required from Historic England on providing baseline data for designated and non-designated heritage assets, and the 'setting' of heritage assets;
- Further advice is required from Natural England on providing baseline data for statutory and non-statutory biodiversity sites.

More details including the County Council's remedial intentions for the above are included in Section 7 (Monitoring) of this report.

### **3.2 Key Issues and Problems in South West Hertfordshire**

From analysis of the baseline data, a number of key issues have emerged. More details are available in Section 7 of this report.

These are:

- Road congestion – specifically urban traffic in peak hours, and car ownership figures;
- The need to limit carbon dioxide, and nitrous oxide emissions;
- Air quality and the number of Air Quality Management Areas (AQMAs) (including mortality attributable to particulate air pollution);
- Noise pollution;
- Childhood obesity exacerbated by lack of active travel.

Other issues that the baseline has highlighted include:

- There has been no real change in the condition levels of SSSIs but only 52% are in favourable condition.
- Road casualty figures still a cause for concern, particularly in the GTP area.
- Cycling trips are below target, but walking trips are well above target levels.
- More and more people are participating in cycling training.
- Road condition targets are generally exceeded.
- The numbers of Hertfordshire Health Walks are steadily increasing.
- Data shows that the numbers of children using sustainable modes to travel to school is slowly increasing.
- Bus punctuality is worsening.
- There has been growth in active local enterprises and an increase in GVA per head.

## 4. ASSESSMENT METHODOLOGY

### 4.1 Introduction

Details on the full SEA assessment process can be seen in Section 5 of the LTP4 SEA Environmental Report ([www.hertfordshire.gov.uk/ltp](http://www.hertfordshire.gov.uk/ltp)).

The SEA regulations do not specifically require the use of a framework of environmental objectives in SEA (to assess a plan against), but it is a recognised way in which environmental effects can be described, analysed and compared. The LTP4 SEA Objectives have been chosen for the SW Herts GTP, as Growth & Transport Plans are delivering LTP4 policy and objectives.

The County Council's Environmental Resource Planning team had previously developed a master set of sustainability appraisal objectives in response to sustainability appraisals and the SEA Directive. This master set is based on the objectives of relevant national, regional and local plans. To create a set of objectives for the SEA of LTP4 and its supporting documents, this master set was taken and adapted to reflect SEA topics and local circumstances (further detail can be found in Section 5.2 of the LTP4 SEA Environmental Report).

The final set of 19 SEA Objectives chosen to make up the framework for LTP4 and any Growth & Transport Plans are:

SEA Topic	SEA Local Objective
Biodiversity, fauna and flora	1. To protect and enhance biodiversity.
Population and human health	2. To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities. 3. To reduce crime and create safe environments.
Water and soil	4. To improve the sustainable use of resources. 5. To move away from waste disposal to minimisation, reuse, recycling and recovery. 6. To ensure the efficient use of water, and safeguard water resources. 7. To reduce contamination, and safeguard soil quality and quantity.
Air	8. To protect and enhance air quality and minimise noise pollution. 9. To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car.
Climatic factors	10. To adapt to the impacts of climate change such as flooding.

	11. To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport. 12. To ensure the sustainable supply and use of energy.
Historic Environment and Landscape	13. To protect and enhance the character of landscape, townscape and green spaces. 14. To conserve and enhance the historic environment, heritage assets and their settings.
Social inclusiveness	15. To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all. 16. To empower all sections of the community to participate in decision making and local action.
Economic development	17. To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy. 18. To spread economic growth more evenly to benefit deprived areas. 19. To maintain the vitality and viability of existing centres.

The SEA Local Objectives are also supported by a number of sub-objectives, these are examples of issues that should be considered by the appraisal, and should be used during the testing of the schemes/projects against the SEA Objectives, a full list of these sub-objectives can be found in Appendix 2.

## 4.2 Assessing the SW Herts GTP, and Identifying the Effects

The draft SW Herts GTP contained 9 packages of interventions targeting different locations and corridors in the plan area. In total the packages includes 81 individual projects and schemes - comprising 33 larger schemes (13 of which having alternative approaches) and 49 smaller projects combined in 13 linked Project Groups. It was decided that each of the Linked Projects and the separate schemes (and their alternative approaches) be assessed individually against the LTP4 SEA Objectives (See Appendix 3 for the individual Assessment Matrices).

Once effects are identified, it is important to determine which of the effects are likely to be minor and which significant. With regards to the SW Herts GTP, it has been difficult to assign significance of effects due to uncertainty of scheme design at the assessment stage. Also, the current financial situation makes the timing and extent of implementation also uncertain, and so it is difficult to assess schemes and measures accurately.

With such a large number of schemes to assess it was decided not to summarise the impacts, the SEA recommendations, and the HCC response to these recommendations for each of the schemes, but to group them into the 9 packages and summarise the findings of the SEA Assessments by Package (See Section 5).

Section 5 also summarises why the alternative approaches for 12 schemes were not taken forward.

### 4.3 Consultation changes

A number of changes were made to the draft South West Herts GTP as a result of the consultation and recognition of gaps in the strategy. The table shows how these have been reflected in the SEA Environmental Report.

<b>Consultation Change</b>	<b>SEA Change</b>
Deletion of a few schemes including PR67, PR10 and PR95	The schemes that have been removed will not affect the overall conclusions of the SEA. The original assessments have been retained within this Environmental Report for reference. Changes have been made to the cumulative assessments where necessary.
Addition of some schemes including SM34, SM35, SM36 and PR111 to PR117	All of the new schemes have individual assessments included in appendix 3 of this SEA Environmental Report and have been reflected in the Package summaries and cumulative impacts.
Changes in scheme descriptions to clarify the scope and intent	These are not considered to materially change the potential effects of these schemes. The findings and recommendations of the original assessments remain valid and are presented in Appendix 3 to this report.

## **5. THE EFFECT OF THE SOUTH WEST HERTS GTP PACKAGES**

### **5.1 Introduction**

Nine packages are defined in the SW Herts GTP, seven of which include more than one approach governed by the different scheme approaches. Each package has an overarching aim; a map broadly indicating the locations and spatial extents of interventions, and their relationship to proposed large scale development sites; the outcomes intended; costs, and the indicative sequence for delivery.

It should be noted that some interventions featured in more than one package, because they focus on tackling more than one challenge across the Plan area.

The summaries in Section 5.2, show for each package:

- a summary of the main positive and negative impacts of the interventions in that package;
- the recommendations from the SEA Assessments to mitigate any negative impacts, or promote any positive impacts;
- the HCC Response, i.e. how these recommendations will be taken on board.

The South West Herts GTP includes both projects and schemes, with schemes being medium to large scale interventions that would impact a broader geographical area than a project. A scheme could also comprise of a single large intervention or a closely related set of measures which could not be deliverable as separate projects. With the set of schemes for the SW Herts GTP there may be more than one approach to dealing with a particular challenge. An approach represents an alternative option for the implementation of a scheme.

As part of developing the short list of combinations of schemes/projects that would best serve the interests of SW Herts, a high level appraisal framework was developed to identify a short list of combinations which would best serve the interests of the Plan area and be able to achieve the GTP goals.

A series of steps were followed in appraising the interventions:

Step 1 – Qualitative assessment on projects and schemes (cost range, timescales, risks, likelihood of funding).

Step 2 – Scoring against GTP objectives.

Step 3 – Each set of interventions were assembled along with their individual assessment.

Step 4 – How well can the package address the challenge groups.

Step 5 – Practical feasibility of the highest-ranking Package approach considered.

In total 13 of the proposed 'schemes' had alternative approaches, ranging from 2 – 4 different approaches. The preferred package summaries (Section 6) in the SW Herts GTP Prospectus, show the preferred project/approach and the decision taken

on why that approach was chosen (<https://www.hertfordshire.gov.uk/media-library/documents/highways/sw-herts-gtp-prospectus.pdf>).

As part of this SEA assessment all schemes and approaches were assessed, but the summaries below only include the outcomes of the preferred approaches.

## 5.2 Assessment of the Packages – Summary of Findings

### **PACKAGE 1 – HEMEL HEMPSTEAD EAST-WEST CORRIDOR**

#### **Aim:**

To form an east-west, cross town, multi modal corridor which facilitates journeys on foot, by bike, by bus and also by car between Hemel Hempstead railway station, the town centre, Jarman Park and Maylands industrial area.

The package consists of:

- Converting the A414 into a multi-modal transport corridor that better facilitates walking, cycling and buses alongside private vehicles, and improving connectivity both along and across the key route – potentially enabled by a future Mass Rapid Transit System;
- Improving access to the M1 through the provision of an additional junction and enhancements to Hemel's existing junction;
- The reorganisation of road space in the Apsley/Two Waters area to facilitate an improved environment for walking and cycling.

#### **Package 1 - Summary of SEA Assessment**

##### **Cycle improvements**

A high proportion of the 21 schemes/projects proposed for this package are cycle related, with new cycle routes proposed, existing routes extended, a new cycle and bus only route, and a cycle flyover at the Magic roundabout. If sufficient modal shift can be achieved by these schemes, then there are many positives that would benefit Hemel Hempstead, cycling is affordable and can improve access to local services and facilities and is affordable for all sectors of the community, particularly for those without access to a car. New cycle links would improve links between the town centre and the railway station, allowing better access to employment for local people and opening up the labour market for employers, and better connectivity to the Maylands business park and Jarman Park. Cycling can improve people's health as it is an active travel mode, both physical and mental health. Environmental benefits from any modal shift to cycling would include better air quality and less vehicle noise, less consumption of fossil fuels and therefore fewer greenhouse gas emissions, reductions in energy use (from less fossil fuel consumption), less of an impact on local biodiversity, and the historic environment. All of the above contribute towards maintaining the vitality and viability of Hemel Hempstead town centre. The design of the cycle flyover also has the opportunity to enhance the local landscape and create a new local landmark.

There are no significant negative impacts from the cycle proposals for this package, but any new infrastructure should be mindful of resources required and impacts on local biodiversity. A number of the cycling schemes are close to the River Bulbourne and so impacts of climate change and the risk of flooding are a concern.

### Junction Improvements/Streetscape Enhancements

Both the junction improvements and streetscape enhancements proposed are centred around improving the choice of sustainable modes and reducing the need to travel by car in Hemel Hempstead, and improving access to services and facilities, particularly to the business parks, railway station and the town centre. If sufficient modal shift can be achieved to bus, cycling and walking, this will have potential benefits to the local environment (biodiversity, air quality, noise levels, greenhouse gas emissions). These schemes aim to increase active travel, providing both physical and mental health benefits.

Again, there are no significant negative impacts, but the River Bulbourne is close by and so impacts of climate change and the risk of flooding are a concern.

### Enhancement of Hemel Hempstead Railway Station

This scheme would allow the public to make better travel choices by more sustainable modes, and would provide significant economic benefits to the town. There are no significant negative impacts identified, but there will still be some car use to the station with its edge of town location, and any increase to the car park capacity could increase car journeys, if sustainable modes are not sufficiently promoted.

### M1 Junction 8/8a

The current proposals include a new junction, or enhancements to the current Junction 8. Any new junction would have significant negative impacts on local biodiversity/habitats, air quality, noise, soil quantity, landscape. Large amounts of raw resource would be required and there would be significant construction waste. A new junction would facilitate car use with no positives to health, the choice of sustainable modes or greenhouse gas emissions. The only significant positive to a new junction would be the economic benefits to the local employment centres, with easier access to both the employment areas and the town centre. Enhancements to the existing M1 Junction 8 would have fewer significant negative impacts, but resources would still be required and some amount of construction waste. Both proposals could have impacts on the local Gorhambury estate.

### **SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. employees of business parks (Maylands, Jarman Park, Ski Centre). Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan. Any new infrastructure will need to consider impacts on the Biodiversity (any SSSIs), soil environment, lighting, drainage issues (compliance with SuDS), and the use of resources for construction and disposal of construction waste (check policy in HIAMP). For those on lower incomes it is suggested that a local cycle recycling scheme could be set up, allowing low cost bicycles to be purchased. It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised. It is

recommended that any local businesses/schools with Travel Plans are updated to reflect the new infrastructure.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well. Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes. Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process. There is a community organisation (Watford Cycle Hub) that renovates and sells on secondhand bikes at affordable prices. A Cycle Hub launched in Dacorum in 2017, based in Hemel Hempstead. Travel Plans are owned by the business in question, so HCC would not be able to control updates of existing plans. However, it is possible for HCC to engage with schools as part of their usual work on school road safety matters, which could be coordinated with delivery of significant schemes; and likewise with developers through Highways Development Management team input and updates to the HCC Travel Plan Guidance.

## **PACKAGE 2 – MAYLANDS (HEMEL HEMPSTEAD)**

### **Aim:**

To provide improved access to the Maylands industrial area from both within Hemel Hempstead and outside of the town by all modes of transport.

The package consists of:

- The introduction of an East Hemel Hempstead Multi-Modal Transport Interchange serving the Maylands and Enterprise Zone developments;
- Improving access to the M1 through the provision of an additional junction and enhancements to Hemel's existing junction;
- A new spine road serving East Hemel Hempstead urban extension and Maylands alongside a series of cycling improvements to improve connectivity across the proposed developments.

### **Package 2 - Summary of SEA Assessment**

#### **Public Transport Hub**

The main benefits will be for Maylands, with improved accessibility for commuters which should provide economic benefits to local businesses. If sufficient modal shift can be made to bus/coach, then the area would experience air quality improvements and some health benefits as it would facilitate active travel. Any public transport schemes should be mindful of Hate Crime with more people using the public realm, and the buses and coaches running on any priority and shuttle routes should be the cleanest vehicles possible (latest Euro rating or ULEV). Any improvements to car parking at Maylands could facilitate car use.

#### **Cycling schemes**

More cycling will result in less negative impacts on biodiversity, historic and natural environment than use of fossil-fuelled cars. It will also impact beneficially on better air quality and less air pollution, better public health and a safer public realm. Economically the cycle way enables people on low incomes to access opportunities particularly at Maylands. However, there can be negative perceptions of safety when deciding to cycle, and a fear of crime.

#### **All vehicle link road and conversion of country lanes into Quietways**

PR 27 will facilitate car use which will result negative impacts, however the Quietways will maximise many positive impacts on human health, availability of employment opportunities, accessibility, equalities, enhance air quality and minimise noise pollution.

#### **M1 Access (Additional Junction and Enhancements)**

This scheme has potential benefits to the local economy, with possible journey time savings and improved access to the town centre and employment areas, but it would have a number of negative impacts on the local environment, it would facilitate car use, could increase accidents and would impact on the nearby historic Gorhambury Estate.

### Hemel East Spine Road

This will be a multi modal road, and so should keep in mind the LTP4 Transport User Hierarchy.

### Cycle Bridge

This scheme will enable modal shift and so could provide benefits to air quality, health as cycling is an active travel mode, it would provide improvements to the public realm and would improve access to local industrial estates.

### **SEA recommendations:**

Promotion is crucial; i.e. promote the use of cleaner vehicles (including buses), travel plans and car sharing. Install EV charge points. Encourage active travel for journeys; take into account the County Hate Crime Strategy (especially with any bus schemes), protected equalities groups should always be considered (see the EqIA). Promote sustainable construction practices as schemes start.

Promote cycling as a form of active travel. This could be specifically tailored to groups that may use the cycle way and new signalised crossings such as employees of Maylands Business Park and enterprise zone (via Travel Plans). Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Lockable cycle storage at destinations is crucial. Lighting and the safety of off-road cycle ways should also be considered in order to prevent crime or fear of crime. Consideration should be made for those that cannot afford bicycles through recycling schemes. During construction of the cycle way; minimise soil removal and damage to green spaces. Recycled materials should also be used where possible and SUDS principles used.

For vehicle link road; unless highway mitigation measures are put in, it is likely that this new road will become congested at peak times with Maylands employees commuting to and from work.

For the construction of the Quietways ensure any lighting has a low impact on biodiversity, and the design of the route does not deter usage by any equalities groups. Travel plans for larger businesses in Maylands should include lockers, bike storage, and possibly showers for employees. This does not have to be part of a travel plan it could be part of the employer's rewards package for employees and enhance the green credentials of the company. Ensure active travel is promoted to employees via the Maylands Business Centre. Shift workers may dislike using the Quietways when dark or lonely so consider travel buddying schemes to encourage their use. Consider 'designing out crime' recommendations – see Building Futures guidance, Manual for Streets and Roads in Herts. Maintenance of vegetation and good surfaces all help towards safer routes. Design out the potential for flooding; reuse and recycle as much as possible whilst building the scheme.

Promote the Nickey Line improvements and active travel to appropriate groups. Recommend that the HCC map of historic assets is consulted. Ensure creation of step free access does not result in damage to surrounding flora and fauna.

Follow all the recommendations in the new HIAMP and the new Roads in Herts Design Guide. The new spine road must be designed in line with LTP4 policy on the transport user hierarchy and allow priority to pedestrians and cyclists. The flooding team will be able to advise on water use and the new HIAMP should offer guidance on the construction methods to use to safeguard water resources.

Any major scheme such as this would require a detailed Environmental Impact Assessment. Check HCC Highways Policy/Guidance on the use of recycled construction materials and recycling construction waste.

The coaches should use alternative fuels or be ULEV and CCTV be implemented within the coaches and at the interchanges, for personal security reasons and a timetable to includes early mornings and evenings for those who work shift patterns. Ensure use of recycled materials and sustainable construction practices. Promote cycling as a form of exercise for everyone.

It is suggested that the M1 J8 proposals are subject to an Environmental Impact Assessment.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well. There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices. A Cycle Hub launched in Dacorum in 2017, based in Hemel Hempstead.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed, to identify measures to avoid and mitigate significant negative impacts. This would be the responsibility of the scheme promoter (e.g. Highways England, HCC or developers for any schemes they take forward through their programmes or developments).

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards. HCC's approach to Electric Vehicles and charging infrastructure on highway will have to be decided as a policy matter. HCC plans to address this in a new Intelligent Mobility Strategy.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad hoc basis. In particular, the matter could be considered as part of the Intalink Bus

Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

Travel Plans are owned by the business in question, so HCC would not be able to control updates of existing plans. However, it is possible for HCC to engage with schools as part of their usual work on school road safety matters, which could be coordinated with delivery of significant schemes; and likewise with developers through Highways Development Management team input and updates to the HCC Travel Plan Guidance.

## **PACKAGE 3 – HEMEL HEMPSTEAD - LUTON CORRIDOR**

### **Aim:**

To improve connectivity between Hemel Hempstead and Luton by car and by public transport and limit the impact of rat-running traffic on roads within Harpenden and nearby country lanes.

The package consists of:

- The introduction of an East Hemel (Maylands) Multi-Modal Transport Interchange serving the Maylands and Enterprise Zone developments;
- Improving access to the M1 through the provision of an additional junction and enhancements to Hemel's existing junction;
- Exploring enhanced bus and coach services between Luton and Maylands/Hemel Hempstead, alongside streetscape improvements in Harpenden.

### **Package 3 – Summary of SEA Assessment**

#### East Hemel shared mobility scheme

A new interchange and shared mobility solutions could achieve improved accessibility and network resilience, leading to improved economy, reduction of air pollution and some benefits of active travel to public health. Adding car parking capacity associated with a new transport interchange has potential to reduce the number of single occupancy vehicles, but also has the potential to increase the numbers of car users as parking could become the easier option. There is a need to be mindful of hate crime on public transport which is a growing issue and is addressed by actions in the hate crime strategy.

#### M1 Junction 10 and Harpenden High Street user hierarchy

The project group aims to move traffic onto the M1, and encourage people to walk and cycle by improving active travel infrastructure in the town.

The M1 J10 slip road capacity improvements could reduce rat running and improve safety and air quality on local roads, but at the location of the junction it could facilitate car use and so emissions would worsen, it would not provide additional choice for sustainable modes and so would not benefit those without access to a car. The Harpenden improvements and A1081 cycle corridor would do the opposite and provide a number of benefits, as access to sustainable modes would be improved, which would facilitate active travel, economically, cycling is accessible to everyone in society at a relatively low cost and so the cycle way may enable those on low incomes to access employment opportunities particularly due to the connectivity with Luton and St Albans. These sorts of schemes have fewer negative impacts on the biodiversity, historic and natural environment than the continued use of transport modes reliant on fossil fuels. The possibility of achieving modal shift due to the cycle infrastructure improvements will lead to improved air quality and less noise pollution.

#### NE Harpenden pedestrian and cycle access

This series of minor changes to improve pedestrian and cycle access to the station and the town centre from new development areas will help increase access to jobs and services by sustainable modes and provide opportunities for active commuting, education trips, leisure and healthy lifestyle with potential health and wellbeing benefits. Supported by other projects to increase sustainable transport mode share, the projects could contribute to improved air quality and reducing emissions from transport. No significant adverse environmental impacts are expected due to the limited extent of the works.

#### M1 Junction 8/8a

Both a new Junction 8a or an enhanced existing Junction 8 would provide benefits in accessing local employment centres and the town centres, but would also result in many negative impacts as even though the schemes aim to reduce congestion they could in fact facilitate car use which would impact on local air quality, emissions, local landscape, loss of soil, biodiversity, could increase numbers of road accidents, the historic Gorhambury Estate is close by, and both schemes would require significant amounts of resources and waste disposal.

#### M1 Dedicated Coach Service

A motorway coach service would increase the choice of sustainable modes, and if modal shift is achieved that part of Hertfordshire could see small improvements to air quality, and emissions (if the coaches used are of the latest euro rating or ULEV). It would provide economic benefits to the key employment centres. The main negative of modal shift from cars to a coach service is the increased potential for hate crime.

#### **SEA recommendation:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. to commuters into Luton, Harpenden and St Albans.

Update any local business and school travel plans with new options available including any new car sharing schemes. As this package could facilitate car use consider installing EV charge points.

The following should be considered as part of any contracted works: lighting (fear of crime and energy efficiencies), SuDS for drainage issues and ensuring local water courses are not contaminated, habitat loss, soil removal, construction materials used (consult HIAMP policies for use of recycled materials), and potential conflicts between buses, cycles and pedestrians (clear signage). Check the HCC historic assets and flooding maps.

Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan. For those on lower incomes it is suggested that a local cycle recycling scheme could be set up, allowing low cost bicycles to be purchased.

For the M1 junction proposals it is recommended that some sort of Environmental Impact Assessment is undertaken.

Any passenger transport improvements should ensure that the scheme takes into account the County Hate Crime Strategy, and protected equalities groups should always be considered,(see the EqIA). CCTV should be implemented within the coaches and at the interchanges, for personal security reasons. Timetables should also take into account different working practices i.e. shift working. Any vehicles should have the latest Euro rating or be ULEV.

**HCC response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

Travel Plans are owned by the business in question, so HCC would not be able to control updates of existing plans. However, it is possible for HCC to engage with schools as part of their usual work on school road safety matters, which could be coordinated with delivery of significant schemes; and likewise with developers through Highways Development Management team input and updates to the HCC Travel Plan Guidance.

HCC's approach to Electric Vehicles and charging infrastructure on highway will have to be decided as a policy matter. HCC plans to address this in a new Intelligent Mobility Strategy.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on secondhand bikes at affordable prices.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed, to identify measures to avoid and mitigate significant negative impacts. This would be the responsibility of the scheme promoter (e.g. Highways England for any schemes they take forward through their programmes). Recommendations of this SEA in terms of schemes likely to require an EIA are noted.

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad-hoc basis. In particular, the matter could be considered as part of the Intalink Bus Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

## **PACKAGE 4 – ST ALBANS - WATFORD CORRIDOR**

### **Aim:**

To maximise the potential of the existing Abbey Line as a rail route by enhancing onward connections into St Albans City, and to transform the parallel A405 into a multi modal road by diverting strategic traffic onto the motorway network, freeing up space for more local journeys by bus, bicycle or car.

The package consists of:

- The introduction of a new St Albans south public transport hub, including a new station on the Abbey Line, direct bus services to St Albans City station, and a transfer point for local and interurban buses;
- Additional slips at M25 Junction 21 to allow all movements between the M25 and M1, and streetscape improvements along A405 at Bricket Wood;
- Enhanced cycling facilities along the A405 linking St Albans and Leavesden.

### **Package 4 - Summary of SEA Assessment**

Many impacts are uncertain at this stage as the exact design for each scheme is unknown.

All three proposed schemes aim to increase in the use of sustainable and active travel modes thereby reducing car journeys on congested network. Other positives from modal shift to sustainable modes, is that it aims to keep the traffic moving and therefore improve congestion. A reduction in congestion then has other knock on benefits such as improvements to air quality, fewer greenhouse gas emissions, fewer impacts on local listed buildings, and benefits to local businesses for both access to employment and increased productivity. Any cycling improvements would provide health benefits both physical and mental, and cycling is low cost and available to all.

A new station and park and rail hub and the additional slip roads on the M1 J6a/M25 would require significant amounts of resources and would require land-take which would reduce soil quality and quantity.

### **SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. employees of business parks (Leavesden).

Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan. For those on lower incomes it is suggested that a local cycle recycling scheme could be set up, allowing low cost bicycles to be purchased.

Any new infrastructure will need to consider impacts on the Biodiversity, soil environment, lighting, drainage issues (compliance with SuDS), and the use of resources for construction and disposal of construction waste (check policy in

HIAMP). For the motorway junction improvements, it is recommended that a separate Environmental Impact Assessment is undertaken.

It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised. Assist bus operators in bidding for national funding for greener, cleaner buses. The park and ride hub should be accessible by all modes and will result in more people in the public realm, consideration should be given to personal security issues and the fear of crime, in particular, Hate Crime which often occurs on public transport. Ensure schemes comply with the Hertfordshire Hate Crime Strategy.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed, to identify measures to avoid and mitigate significant negative impacts. This would be the responsibility of the scheme promoter (e.g. Highways England for any schemes they take forward through their programmes).

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad hoc basis. In particular, the matter could be considered as part of the Intalink Bus Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

## **PACKAGE 5 – WATFORD WESTERN GATEWAY**

### **Aim:**

To improve access to Watford Western Gateway and the Watford and Croxley business parks through the enhancement of sustainable transport links.

The package consists of:

- A new southern access into Watford Western Gateway Business Parks area for cyclists and buses only, and enhancements of the Ebury Way for walking and cycling;
- Making use of the disused railway alignment in West Watford to enable sustainable and mass transit transport opportunities, informed by a study of options;
- The introduction of a new bus and cycle-only link across the River Colne linking South Oxhey and the Business Parks area;
- Enhanced cycleways and facilities linking the Western Gateway area to Watford Junction.

### **Package 5 - Summary of SEA Assessment**

The schemes that make up Package 5 have very similar positive impacts, with all showing a significant positive impact on improving the choice of sustainable modes. The various bus, cycle and pedestrian links will improve access to local services and business parks (Western Gateway) whilst a potential new mass transit connection would improve connection from West Watford to the town centre and its stations. As these modes are classed as active travel the package should contribute towards improving the health of users. A number of the schemes will improve access to local wetlands and common land which facilitates active travel and will have both physical and mental health benefits. Sustainable modes are more affordable and accessible to those on lower incomes, and better accessibility could open up opportunities for employment. If there is sufficient local modal shift then other benefits could be achieved such as reduced congestion, better air quality, and fuel efficiencies.

Improving the existing Ebury Way (SM35) for walking and cycling by improving hard surfacing and links to local destinations will have a number of significant positive impacts including improving access to walking and cycling and local services, and the choice of sustainable modes. Air quality and noise pollution from motor vehicles should improve in the local vicinity, and a reduction in greenhouse gas emissions. Potential negatives could include minor impacts on the nearby SSSI Croxley Common Moor mainly from any lighting improvements (particularly on moths and bats) and possible vegetation removal. Any new hard surfacing would have an 'urbanising effect'.

Package 5 includes SM34 Watford cross-town connectivity study, although just a study at this stage if this scheme was taken forwards there are a number of positive and potentially negative impacts that have been identified by this assessment upon the local area. To provide better cross town connectivity new sustainable transport schemes (bus/cycle/pedestrian) would be implemented

between employment areas, the town centre and Watford Junction, this would provide substantial positives to the choice of sustainable modes, and provide additional accessibility to services, and to the employment areas. Increasing access within Watford should provide benefits to the vitality and viability of the town centre. There are however a number of potential negative impacts as a result of any construction and the running of new services, these will need to be considered in any scheme design. Any new infrastructure could result in additional surface run-off which could contaminate the River Colne, some soil removal and capping would be necessary, along with the removal of vegetation and trees and some reprofiling of land. A disused railway would be brought back into use for sustainable transport and this would mean some localised noise pollution. Some schemes would be in a known flood zone. There would be additional energy requirements for lighting, stations/stops, and vehicles.

The potential impacts of bringing the former railway alignment into use for transport are unclear at this stage, but the assessment has identified such a scheme may have implications for biodiversity, water quality and flooding. Impacts and mitigation needs for a major scheme would need to be confirmed through an EIA.

There are no significant negative impacts identified from the assessments at this stage, but care will need to be taken in the Cassiobury Park area if any schemes are developed that are off the current cycle route. Other schemes will go through local grasslands, and are near to SSSI sites, wetlands and a local spring. Any off-road routes could have negative impacts on personal security and lighting, and new infrastructure could be subject to flooding, would visually impact on the current landscape, would require some soil removal, and would need some raw resources.

**SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. employees of business parks. Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan.

An EIA is likely to be a requirement for any major transport scheme to convert the disused rail line. For any schemes that are close to key biodiversity areas and SSSIs, it may be necessary for an EIA to be undertaken to determine the best routes and how impacts can be avoided, reduced and mitigated. Many of the schemes are close to wetlands therefore flooding issues should be considered at the design stage.

The following should be considered as part of any contracted works: lighting for off road routes (fear of crime and energy efficiencies), SuDS for drainage issues and ensuring local water courses are not contaminated, soil removal (consider reusing soil for reprofiling), construction materials used (consult HIAMP policies for use of recycled aggregates), and potential conflicts between buses, cycles and pedestrians.

It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised. It is recommended that any local businesses/schools with Travel Plans are updated to reflect the new infrastructure.

As some of the proposed new bus routes will be in sensitive biodiversity areas, it is recommended that the use of cleaner buses is really pushed for with operators, and if required HCC to provide support in any bidding for clean bus funds.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed, to identify measures to avoid and mitigate significant negative impacts.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

Travel Plans are owned by the business in question, so HCC would not be able to control updates. However, it is possible for HCC to engage with schools as part of their usual work on school road safety matters, which could be coordinated with delivery of significant schemes.

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards. HCC will continue to try to secure improved emissions standards on vehicles alongside delivery of schemes that introduce better bus priority.

## **PACKAGE 6 – WATFORD TO HEMEL HEMPSTEAD CORRIDOR**

### **Aim:**

To promote journeys between Watford and Hemel Hempstead by train and by bus, and to discourage journeys by car on inappropriate routes.

The package consists of:

- Improvements to M25 Junction 20, bus priority along the A41, and enhanced interurban bus services between Hemel Hempstead and Watford;
- Enhanced cycleways and facilities along the Grand Union Canal Towpath and the A411 from Hemel to Watford town centre;
- Watford Junction and town centre public realm enhancements.

### **Package 6 - Summary of SEA Assessment**

There are 14 schemes that make up this package including some junction improvements, bus priority, railway station enhancements, Streetscape and public realm improvements, and cycle/pedestrian improvements.

#### Cycle/Pedestrian/streetscape/public realm Improvements

If sufficient modal shift can be achieved by these schemes, then there are many positives that would benefit this corridor, cycling and walking is affordable and can improve access to local services and facilities, particularly for those without access to a car, along this corridor improvements would allow educational opportunities as it would provide better access to West Herts College . New cycle/pedestrian/bus only links would improve links between the town centres and the railway station, allowing better access to employment for local people and opening up the labour market for employers. Cycling and walking can improve people's health as they are an active travel mode, both physical and mental health. Environmental benefits from any modal shift to cycling would include better air quality and less vehicle noise, less consumption of fossil fuels and therefore fewer greenhouse gas emissions, reductions in energy use (from less fossil fuel consumption), less of an impact on local biodiversity, and the historic environment.

There are a lot of uncertainties around any negative impacts from any of these schemes as exact scheme design is unknown, but there are no significant negative impacts from any of these cycle/pedestrian proposals for this package. Any new infrastructure should be mindful of resources required and impacts on local biodiversity. A number of the cycling schemes are close to the River Bulbourne and so impacts of climate change and the risk of flooding are a concern.

#### Junction Improvements/Streetscape Enhancements

Most of the junction improvements proposed and streetscape enhancements proposed are centred around improving the choice of sustainable modes and reducing the need to travel by car along this corridor, and improving access to services and facilities, particularly between the railway station and the town centre. By improving the connectivity between the town centre and the station this should provide better access to the labour market for employers and allow easier

access to employment for local people, which in turn may help the vitality of the town centre. If sufficient modal shift can be achieved to bus, cycling and walking, this will have potential benefits to the local environment (biodiversity, air quality, noise levels, greenhouse gas emissions). These schemes aim to increase active travel, providing both physical and mental health benefits.

The assessment on the capacity improvements proposed for M25 J20 / Hunton Bridge roundabout shows significant negative impacts on local air quality and noise, emissions, health, and choice of sustainable modes, as a capacity enhancement scheme is likely to facilitate car use. A local SSSI woodland and the Grade II listed Grove Hotel nearby could experience negative impacts as a result of any increase in vehicle volumes. The River Bulbourne is nearby and so impacts of climate change and the risk of flooding are a concern.

#### Railway Stations

Both the Kings Langley Park & Ride and the Hemel enhancements would allow the public to make better travel choices by more sustainable modes, and would provide significant economic benefits to the towns. There are no significant negative impacts identified, but the park and ride scheme would impact on the local landscape and would not provide any benefits to those without the use of a car. Any increases to the car park capacity at either station could increase car journeys, if sustainable modes are not sufficiently promoted.

#### Bus Priority/Enhancements

Enhancing bus provision increases the choice of sustainable modes for local people, and will improve access to town centres. Any modal shift will provide benefits to 2 local air quality management areas.

The only significant negative impact is around personal security on buses and the potential for an increase in Hate Crime incidents with more people in the public realm and using buses.

#### **SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. Students, town centre users, Maylands and Western Gateway business parks. Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan. For those on lower incomes it is suggested that a local cycle recycling scheme could be set up, allowing low cost bicycles to be purchased.

Any new infrastructure will need to consider impacts on the Biodiversity and any SSSIs (Roughdown Common), soil environment, lighting, drainage issues (compliance with SuDS), and the use of resources for construction and disposal of construction waste (check policy in HIAMP). It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised. Any scheme design should be mindful of potential conflicts between users of different modes with more people in the public realm, signage and rights of way should be considered to minimise future accidents/incidents. It is recommended that HCC to

provide support in any bidding for clean bus funds, and consider providing EV charging points.

For the capacity improvements at M25 J20, it is recommended that an EIA may be required as this scheme could have significant negative impacts, and that traffic modelling is done to determine the extent of any traffic growth. For the station improvements it is recommended that the Kings Langley Park and Ride scheme is also subject to an EIA, and HCC should consider lobbying the train operating company for an increase in train services. Careful consideration should be given to any increase in parking provision at Hemel Station, and a station travel plan should be considered. Lobby train operating companies around fare levels in the county.

With bus improvements as part of this package, any scheme should ensure it is consistent with the Hertfordshire Hate Crime Strategy.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on secondhand bikes at affordable prices.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

HCC's approach to Electric Vehicles and charging infrastructure on highway will have to be decided as a policy matter. HCC plans to address this in a new Intelligent Mobility Strategy.

All the scheme concepts proposed will require further feasibility and investigatory work, which would establish likely impacts on the network and allow cost-benefit analysis to be done. Schemes could also be modelled in future runs of the Countywide Transport Model.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed. Recommendation of EIA for these schemes are noted.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad hoc basis. In particular the matter could be considered as part of the Intalink Bus Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

## **PACKAGE 7 – WATFORD CENTRAL**

### **Aim:**

To reduce traffic congestion in Watford town centre by enhancing infrastructure which benefits journeys made on foot, by bicycle and by bus, and provide new route options for traffic which avoid busy urban roads.

The package consists of:

- Significant public realm enhancements and improvements to movement and permeability for sustainable modes on Watford Ring Road;
- Improved walking and cycling environment on routes to Watford Junction station and a new bus and cycle only link bridge at Colonial Way;
- The introduction of slips at M1 Junction 4 to allow all movements between the M1 and A41, alongside a Park & Ride facility at M1 Junction 5.

### **Package 7 - Summary of SEA Assessment**

#### **Cycle improvements**

If sufficient modal shift can be achieved, then there are many positives that would benefit Watford, cycling is affordable, particularly for those without access to a car, and can improve access to local services and facilities, particularly the town centre. Cycling can improve people's health as it is an active travel mode, both physical and mental health. Environmental benefits from any modal shift to cycling would include better air quality and less vehicle noise, less consumption of fossil fuels and therefore fewer greenhouse gas emissions, reductions in energy use (from less fossil fuel consumption), less of an impact on local biodiversity, and the historic environment. All of the above contribute towards maintaining the vitality and viability of Watford town centre. These schemes also aim to reduce congestion hotspots within the town centre.

There are no significant negative impacts from the cycle proposals for this package, but any new infrastructure should be mindful of resources required and impacts on local biodiversity.

#### **Public Realm Enhancements**

Enhancements to the public realm score highly in the SEA assessments, with significant positive impacts with regards to improvements to health, road safety and fear of crime (by providing high quality and safe facilities for walking, cycling and bus users). Such schemes can provide boosts to the local economy by providing improved access to employment and town centres which in turn helps town centres thrive. If sufficient modal shift is achieved, the area could see improvements in air quality and emissions.

Again, there are no significant negative impacts, but construction practices and waste disposal should consider as much recycled materials and recycling waste as much as possible.

### Watford Ring Road/Colonial Way Schemes

Only the assessment of the Watford Ring Road Gateway junction enhancements has shown significant positive impacts, with significant improvements to air quality and noise, and emissions, improving the choice of sustainable modes, and improving access for those on lower incomes, and into the town centre.

The other ring road schemes and the new proposed bridge, show various positive impacts: such as improving congestion hotspots, if there is sufficient modal shift the local area would see improvements to local air quality (and AQMAs), emissions, health (by opening up public space which may encourage people to shift). 20mph zones can improve safety with slower moving vehicles. There are numerous listed buildings in the vicinity which would benefit from less vehicular traffic. The schemes should improve access and connectivity to the town centre especially for those in lower incomes which provided positives with regards to employment and the local economy, and opens up the labour market for employers.

The only real negative would be that the new bridge proposed would impact on the current townscape, careful design would be required, and it could be an opportunity for a new feature or local landmark in the area.

### M1 Junctions

The current proposals include new southern slips at junction 4, and a Park & Ride at junction 5. Both schemes aim to reduce congestion within Watford town centre (particularly at Bushey Arches which is also an AQMA). A reduction in congestion would improve air quality, the townscape (fewer cars), would boost productivity for businesses and the vitality of the town centre.

The main significant negative impact of the new slip roads is that this scheme facilitates vehicle use and does not promote at all the use of sustainable modes. The following negative impacts could happen if not carefully mitigated: any new slip roads and the park and ride site would require land take and so would impact on biodiversity and habitats. There would be some amount of soil capping. Such major construction would require building materials and some amount of waste disposal. There are 3 Grade II listed buildings in the vicinity of Junction 4 of the M1 that would experience negative impacts from additional traffic. There is a risk that the park and ride could shift environmental issues from the town centre to an out of town location.

### Parking Strategy Action Plan

Many of the impacts are unknown at this stage, as the approach that the strategy will take is unknown, therefore impacts are difficult to determine, this strategy will need to be further assessed once more detail is available.

### Watford cross town mass transit solution

This would improve connection between the town centre and its stations, the hospital and growth areas to the west, enhancing sustainable transport options within the town. Supported with other sustainable transport network improvements the scheme would support modal shift, with the associated social, inclusion, health, air quality and emissions benefits. The potential negative impacts are unclear at this stage, but the assessment has identified such a scheme may have

implications for biodiversity, water quality and flooding. Impacts and mitigation needs for a major scheme may need to be confirmed through an EIA.

**SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. students, town centre users and Bushey Station users.

Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations - this is not mentioned in the Plan. For those on lower incomes it is suggested that a local cycle recycling scheme could be set up, allowing low cost bicycles to be purchased.

Any new infrastructure will need to consider impacts on the Biodiversity (any SSSIs), soil environment (removal and reuse), lighting, drainage issues (compliance with SuDS), and the use of resources for construction and disposal of construction waste (check policy in HIAMP). It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised.

An EIA is likely to be a requirement for any major transport scheme to convert the disused rail line, particular if it may affect sensitive ecological sites.

Any scheme design should be mindful of potential conflicts between users of different modes with more people in the public realm, signage, rights of way, speed limits and road space allocation should be considered to minimise future accidents/incidents. Also ensure that the latest guidance is used in any scheme design i.e. Manual for Streets and Roads in Herts, to get the most potential from each scheme.

It may be worth consulting with the local public with what they would like to see in a public realm scheme.

Watford has a number of air quality management areas, any scheme that promotes bus use should lobby operators to run their cleanest buses on routes in Watford, or even EV buses, and district council environmental health officers should also be consulted to ensure schemes do not worsen the current AQMAs.

- It is recommended that any 20mph zone implemented is monitored to determine impacts on air quality and emissions, as data is minimal around this.
- It is recommended that any local businesses/schools with Travel Plans are updated to reflect the new infrastructure.
- For SM26 it is recommended that a road safety audit is undertaken.
- Should an EIA be done for SM25b, SM14 and SM34 at an appropriate stage?
- Consider environmental barriers for the new slips roads (SM25b) to protect local area and historic buildings nearby.
- That bus routes that serve any park and ride also visit existing centres and train stations and hospital sites.

- For SM25b, SM14 and SM34 liaise with the HCC flood management team and archaeologists.
- SM18, to be further assessed once more detail is worked up around the parking strategy action plan.

### **HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

Schemes are subject to informal consultation – consideration can be given to early engagement with communities for larger scale/more complex schemes. HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

There is not a process to directly monitor air quality changes before/after highway scheme implementation. It is unlikely that small scale monitoring of schemes would give firm understanding of impacts on air quality of 20mph zones. The various potential direct and indirect impacts of 20mph zones need considering together in the context of any scheme.

Travel Plans are owned by the business in question, so HCC would not be able to control updates. However, it is possible for HCC to engage with schools as part of their usual work on school road safety matters, which could be coordinated with delivery of significant schemes.

Road Safety Audits are undertaken as standard on Highways schemes.

HCC would work with operators to get bus services to serve key local destinations such as stations and town centres from any Park & Ride facility, in order to make the facility attractive; however in the long-run service patterns are likely to result from commercial decisions.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed. Recommendation of EIA for these schemes are noted.

## **PACKAGE 8 – WATFORD SOUTH**

### **Aim:**

To enhance the attractiveness of journeys by bike and bus in areas to the south of Watford, and facilitate more appropriate route options for traffic which avoid Bushey Arches.

The package consists of:

- Exploring enhanced bus priority infrastructure and services through Bushey and Carpenders Park;
- Cycling links in Oxhey, South Oxhey, Carpenders Park and Bushey;
- The introduction of slips at M1 J4 to allow all movements between the M1 and A41 alongside a Park & Ride facility at M1 J5;
- Review of traffic and sustainable transport options on local road network around Bushey Arches.

### **Package 8 - Summary of SEA Assessment**

The majority of schemes that make up Package 8 aim to improve the choice of sustainable modes and should improve east-west orbital cycle links in south Watford. Sustainable modes are more affordable and accessible to those on lower incomes, and better accessibility could open up opportunities for employment. If there is sufficient local modal shift then other benefits could be achieved such as reduced congestion and emissions, better air quality (particularly to the Bushey Arches AQMA), fuel efficiencies, health improvements from more active travel, improved access to local historic assets, less impacts on local habitats from reduced car travel (there are a number of local woodlands and green spaces in this area of Watford).

The scope and objectives of SM36 (movement and network study) is not defined, so a range of environmental outcomes are possible. Further scheme investigation and development is required to ensure any proposals do not have adverse impacts on transport objectives such as encouraging and enabling use of sustainable modes.

If local congestion hotspots can be reduced this will provide benefits to local businesses for both access by employees and productivity.

The assessments have also highlighted various positive safety issues by reducing vehicle speeds in a 20mph zone.

Part of this package is to improve bus services between Bushey and Bushey Heath, which will increase accessibility and spread economic growth especially to deprived areas and allow better access to jobs in London. Any bus improvements should be mindful of the interaction of users and possible Hate Crime incidents.

The majority of negative impacts are centred around the new slip roads proposed for M1 junction 4, additional road capacity will facilitate car use and improve access by vehicles to London. New slip roads would have an impact on the local

landscape and require landtake from existing grassland/farmland, and would result in loss of soil (capping). Resources would be required for construction and construction waste would be produced.

There are 3 Grade II listed buildings in the vicinity of J4 that could experience negative impacts as a result of increased traffic. It should be noted that any park and ride implemented may shift transport issues elsewhere.

**SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. Bushey Station users, Watford town Centre users, and also actively promoting the health benefits of walking and cycling, and that journey time savings could be made.

Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan. For those with lower incomes it is suggested that some sort of bicycle recycling scheme could be set up.

The following should be considered as part of any contracted works: lighting (fear of crime and energy efficiencies), SuDS for drainage issues and ensuring local water courses are not contaminated, soil removal, construction materials used (consult HIAMP policies for use of recycled materials), and potential conflicts between buses, cycles and pedestrians (clear signage, signage, and road space allocation). Liaise with HCC flood management and archaeological teams. It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised.

It is recommended that air quality and emissions are monitored in the proposed 20mph zone, as vehicles travelling at lower speeds could add to air pollution, and ensure that Watford Borough air quality officers are consulted.

With bus improvements as part of this package, any scheme should ensure it is consistent with the Hertfordshire Hate Crime Strategy. It is recommended that HCC to provide support in any bidding for clean bus funds.

Further scheme investigation and development is required to understand both potential positive and potential adverse effects of any network changes around Bushey Arches, and to ensure consistency with LTP and SWH GTP objectives and policies. It would be expected that traffic modelling would be undertaken to understand fully the traffic implications of this scheme.

For both the park and ride scheme and the new slip roads at M1 J4, it is recommended that an EIA is done as these schemes could have significant environmental impacts.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices.

Design of schemes would take into account construction impacts on the environment and historic assets. Scheme designs would be in line with design standards, with departures from standard being managed through a review and sign-off process.

There is not currently a process to directly monitor air quality changes before/after highway scheme implementation. It is unlikely that small scale monitoring of schemes would give firm understanding of impacts on air quality of 20mph zones. The various potential direct and indirect impacts of 20mph zones need considering holistically in the context of any scheme.

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad hoc basis. In particular the matter could be considered as part of the Intalink Bus Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

The briefing of any movement and network study will have SWH GTP objectives and LTP policy embedded so that any resulting schemes are consistent and contribute to sustainable transport objectives.

Environmental Impact Assessments would be undertaken on any schemes that qualify under the Regulations, or where scoping has identified EIA is needed, to identify measures to avoid and mitigate significant negative impacts. Recommendations of EIA for these schemes are noted.

## **PACKAGE 9 – RICKMANSWORTH**

### **Aim:**

To enhance the attractiveness of journeys to Rickmansworth railway station and access to the Ebury Way (towards Watford) on foot and by bicycle.

The package consists of:

- A new southern access into Watford Western Gateway Business Parks area for cyclists and buses only;
- Enhanced cycleways and facilities towards Rickmansworth railway station and the town centre;
- Enhancement of the Ebury Way for walking and cycling.

### **Package 9 - Summary of SEA Assessment**

The schemes that make up Package 9 aim to improve the choice of sustainable modes and make access to Rickmansworth town centre (and between Watford and Rickmansworth) by walking, cycling and bus travel easier. Sustainable modes are more affordable and accessible to those on lower incomes, and better accessibility could open up opportunities for employment. If there is sufficient local modal shift then other benefits could be achieved such as reduced congestion and emissions, better air quality, fuel efficiencies, and health improvements from more active travel.

If local congestion hotspots can be reduced this will provide benefits to local businesses for both access by employees and productivity.

The assessments have also highlighted various positive safety issues with the removal of a subway, reducing vehicle speeds in a 20mph zone, and the safety of users accessing the train station.

### **Ebury Way Improvements**

Improving the existing Ebury Way for walking and cycling by improving hard surfacing and links to local destinations will have a number of significant positive impacts including improving access to walking and cycling and local services, and the choice of sustainable modes. Air quality and noise pollution from motor vehicles should improve in the local vicinity, and a reduction in greenhouse gas emissions. Potential negatives could include minor impacts on the nearby SSSI Croxley Common Moor mainly from any lighting improvements (particularly on moths and bats) and possible vegetation removal. Any new hard surfacing would have an 'urbanising effect'.

There are no other significant negative impacts identified from the assessments of this package, but some of the crossings planned could require a new energy source, and the train station access improvements should be mindful of the interaction of users and possible Hate Crime incidents.

**SEA Recommendations:**

Promotion will be key to the uptake of any active travel/sustainable modes, and it may be worth undertaking targeted/tailored promotion to certain sectors i.e. trips to the town centre and between Rickmansworth and Watford, and also actively promoting the health benefits of walking and cycling particularly for the refurbished Ebury Way (signage and wayfinding).

Perception of safety may be a barrier to the numbers of people choosing to cycle, therefore consider promoting locally Bikeability training for confidence building and road safety. Cyclists would also benefit from improved lockable cycle parking at destinations this is not mentioned in the Plan.

Impacts on biodiversity and the SSSI must be avoided and mitigated based on ecological advice.

The following should be considered as part of any contracted works: lighting (fear of crime and energy efficiencies but also ecological impact), SuDS for drainage issues and ensuring local water courses are not contaminated, soil removal, construction materials used (consult HIAMP policies for use of recycled materials), and potential conflicts between buses, cycles and pedestrians (clear signage). Check HCC flooding maps as some areas of Rickmansworth have a history of flooding incidents.

This package suggests new crossings and a 20mph zone, it is suggested that when designing the crossings that these do not result in the frequent stopping of traffic as this can worsen local air quality, and that air quality and emissions are monitored in the 20mph zone, as vehicles travelling at lower speeds could add to air pollution. To encourage more walking, it is suggested that resting points are provided along key routes.

With bus improvements as part of this package, any scheme should ensure it is consistent with the Hertfordshire Hate Crime Strategy.

It is also recommended that the HCC map of historic assets is consulted before any scheme design is finalised.

It is recommended that HCC to provide support in any bidding for clean bus funds.

**HCC Response:**

Subject to resource availability, newly implemented infrastructure can be promoted locally and with relevant target groups to encourage use.

HCC delivers Bikeability Training to schools, and would be envisaged to continue as long as government funding of the programme continues. There are opportunities in Hertfordshire for adults to access cycle training as well.

Improved cycle parking has not been proposed for particular locations within the SWH GTP, although it is recognised within the list of general interventions that will support delivery of the plan's objectives and improve scheme outcomes.

There is a community organisation (Watford Cycle Hub) that renovates and sells on second-hand bikes at affordable prices.

Design of schemes would take into account construction impacts on the environment, ecological protected and sensitive sites and historic assets. Highway scheme designs would be in line with HCC's design standards, with departures from standard being managed through a review and sign-off process.

There is not a process to directly monitor air quality changes before/after highway scheme implementation. It is unlikely that small scale monitoring of schemes would give firm understanding of impacts on air quality of 20mph zones. The various potential direct and indirect impacts of 20mph zones need considering together in the context of any scheme.

It is considered that consistency with the Hertfordshire Hate Crime Strategy should be secured at the level of policy in the first instance, and permeate down to schemes as a result rather than being considered on an ad hoc basis. In particular the matter could be considered as part of the Intalink Bus Strategy. Issues of Hate Crime should be considered balanced against other county council objectives and in a wider context of seeking to improve security, safety and perceptions of safety.

HCC engages with bus operators through the new Enhanced Partnership to work to improve bus services and vehicle standards.

### **Summary of findings**

The assessments of the 9 packages have highlighted very similar impacts, as similar scheme types are proposed for the different areas (cycle/pedestrian improvements, public realm/streetscape improvements, motorway junction improvements, bus priority, railway station access improvements, passenger transport hubs, link/spine roads, park and ride). The SEA recognises that there is uncertainty and it has been difficult to assess the packages and give definite positive and negative impacts without having detailed scheme designs, but the following summarises the potential positive and negative impacts that the South West Herts GTP would be expected to produce.

Many of the schemes aim to increase the use of sustainable and active travel modes thereby reducing car journeys on congested network. Other positives from any modal shift to sustainable modes achieved, is that it should keep the traffic moving and therefore improve congestion. A reduction in congestion then has other knock on benefits such as improvements to air quality, fewer greenhouse gas emissions, fewer impacts on local listed buildings, and benefits to local businesses for both access to employment and increased productivity. Any cycling and pedestrian improvements would promote active travel which would provide health benefits both physical and mental, and cycling/walking is low cost and available to all.

Most of the junction improvements proposed and streetscape enhancements are centred around improving the choice of sustainable modes and reducing the need to travel by car along various corridors, and improving access to services and facilities, particularly between railway stations, business parks and the town centres. By improving connectivity this should provide better access to the labour market for employers and allow easier access to employment for local people, which in turn may help the vitality of the town centres.

Enhancements to the public realm score highly in the SEA assessments, with significant positive impacts with regards to improvements to health, road safety and fear of crime (by providing high quality and safe facilities for walking, cycling and bus users). Such schemes can provide boosts to the local economy by providing improved access to employment and town centres which in turn helps town centres thrive. If sufficient modal shift is achieved, the area could see improvements in air quality and emissions.

Any new infrastructure delivered will need to be mindful of negative impacts such as resources required and waste disposal and should consider sustainable construction practices. New infrastructure could require land-take which would impact on the local environment. Some of the schemes proposed are in know areas of flooding and near Rivers therefore this should be kept in mind during scheme design to future proof schemes from climate change impacts, and build in risk factors from flooding.

Passenger transport schemes will provide many benefits with regard to access to services, facilities and employment, but the use of cleaner vehicle technology (and bidding for funds to replace vehicles) should be high priority to minimise negative environmental impacts on air quality and emission levels. With more people in the public realm using public transport, the issue of hate crime on public transport should be considered as it is a growing issue for Hertfordshire and any scheme should be consistent with the County's Hate Crime Strategy.

There are a number of SSSI's, grasslands, wetlands and historic assets in the Plan area, therefore any schemes will need to ensure any negative impacts are mitigated, for larger schemes this may mean that an Environmental Impact Assessment is required.

## 6. CUMULATIVE, SECONDARY AND SYNERGISTIC EFFECTS

### 6.1 Introduction

It is a requirement of Annex 1 of the SEA Directive that cumulative, synergistic and secondary effects are identified and addressed in the assessment. It is one of the advantages of carrying out a Strategic Assessment that the combined effects of different measures can be more effectively identified. These effects are explained below:

**Cumulative effects** occur when individual developments that, on their own, have an insignificant effect, combine to produce a detrimental environmental impact.

**Secondary effects** are indirect effects which occur away from the original effect or through a complex pathway and not as an obvious result of the Local Transport Plan.

**Synergistic effects** arise when a combined effect (cumulative and secondary) is greater than the sum of the individual effects.

Table 6.1 shows the overall results of the cumulative effect assessment process on the 9 Growth & Transport Plan packages. See Appendix 4 for more detail on the individual cumulative assessments for each of the packages.

The numbers of the SEA objectives in the table below relate to the following objectives:

#### SEA objectives:

1. To protect and enhance biodiversity;
2. To maximise the opportunities for leisure and a healthy lifestyle for all, and to improve the physical and mental health of the population, and reduce health inequalities;
3. To reduce crime and create safe environments;
4. To improve the sustainable use of resources;
5. To move away from waste disposal to minimisation, reuse, recycling and recovery;
6. To ensure the efficient use of water, and safeguard water resources;
7. To reduce contamination, and safeguard soil quality and quantity;
8. To protect and enhance air quality and minimise noise pollution;
9. To improve the choice of sustainable transport modes, encourage their use, and reduce the need to travel by car;
10. To adapt to the impacts of climate change such as flooding;
11. To reduce greenhouse gases including carbon dioxide, emitted by vehicular transport;
12. To ensure the sustainable supply and use of energy;
13. To protect and enhance the character of landscape, townscape and green spaces;
14. To conserve and enhance the historic environment, heritage assets and their settings;

15. To tackle the causes of poverty and social exclusion by improving access to services and community facilities for all;
16. To empower all sections of the community to participate in decision making and local action;
17. To maintain employment, improve economic competitiveness (consistent with environmental constraints) and create a vibrant economy;
18. To spread economic growth more evenly to benefit deprived areas; and
19. To maintain the vitality and viability of existing centres.

**Table 6.1: Overall comparison of effects of preferred corridor approach, policies, interventions and major projects on the SEA objectives:**

	1. biodiversity	2. health of population	3. crime/safety	4. resources	5. waste disposal	6. water	7. soil	8. air / noise	9. sustainable transport	10. adapt to climate change	11. greenhouse gases	12. energy	13. landscape/ townscape/green	14. historic assets	15. social exclusion	16. empowerment	17. employment/ economy	18.economic growth	19. vitality/viability of centres
Overall effect of package 1 on the SEA objectives	P+	✓	P+	P+	P+ / U	U	U	✓	✓	P+	✓	✓ / U	P+	P+	✓	P+	P+	P+	P+
Overall effect of package 2 on the SEA objectives	P-	✓	P+	U	U	U / O	U	P+	✓	P+	P+	P+	P+	P+	P+	P+	P+	P+	P+
Overall effect of package 3	P+	P+	P+	U	U	U	U	✓	✓ / P+	P+	✓	P+ / O	P+	P+	✓	P+	P+	P+	P+

on the SEA objectives																			
Overall effect of package 4 on the SEA objectives	U	P+	U	X	P-	P-	P-	U	✓/ P+	U	P+	U	U	U	P+	P+	P+	P+	P+
Overall impact of package 5 on the SEA objectives	U	✓	U	U	U	U	U	P+	✓	U	P+	P+	P-	U	P+	P+	P+	P+	P+
Overall impact of package 6 on the SEA objectives	U	P+	P+ /U	P+	U	U	U	P+	✓	U	P+	U	P+	U	P+	P+	P+	P+	P+
Overall impact of package 7 on the SEA objectives	P+	P+	P+	P+ /U	U	U	U	P+	✓	U	P+	P+	P+	P+	P+	P+	P+	P+	P+
Overall impact of package 8 on the SEA objectives	P+	P+	U	P-	P-	U	U	P+	✓	P+	P+	P+	P+	P+	P+	P+ /O	P+	P+	P+
Overall impact of package 9	P+	P+	P+	P+ /U	U	P+ /O	P+ /O	P+	P+	P+	P+	P+	P+	P+ /O	P+	P+ /O	P+	P+ /O	P+

on the SEA objectives																				
<b>Overall impact of all 9 packages</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+ /U</b>	<b>U</b>	<b>U</b>	<b>U</b>	<b>P+</b>	✓	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>	<b>P+</b>

Key: ✓ Positive impact

P+ Potentially positive impact

O No relationship/link

U Uncertain/ Depends on implementation

P- Potentially negative impact

X Negative impact

## 6.2 Summary of Cumulative Effects

Environmental problems often result from the accumulation of multiple, small and indirect effects e.g. worsening air quality, changes in landscape and loss of habitat. For the South West Herts Growth & Transport Plan cumulative impacts are the total impacts of the Plan and any impacts from business as usual (without the plan scenario). Appendix 1 – Baseline, shows the ‘without the plan’ impacts on the baseline indicators.

Summary Table 6.2 describes the overall cumulative effects of the 9 packages of the South West Herts Growth & Transport Plan. This takes into consideration the evidence from Table 6.1 and Appendix 4.

**Table 6.2 – Summary of Cumulative Effects**

<b>SEA Objectives :</b>	<b>Summary of Cumulative Effects of 9 Packages on Objectives</b>
1. biodiversity	P+ Overall – the plan will have a potentially positive impact on local biodiversity, mainly as a result of modal shift to more sustainable modes. However, a number of major infrastructure schemes (SM7b and SM13a, packages 2 & 4)) could have significant impacts on local habitats, these would likely require a full Environmental Impact Assessment. Package 2 will have a potential negative effect as a result of new infrastructure and lighting. Impacts from Packages 4, 5 and 6 are uncertain at this stage, it will depend on scheme design.
2. health of population	P+ Overall – Many of the schemes within the 9 packages are about modal shift to more sustainable modes, and in particular, walking and cycling which are active travel modes, and provide benefits to both physical and mental health. Packages 1, 2, 3 and 6 do include major infrastructure schemes that could have significant negative impacts on local health in that they could facilitate car use.
3. crime/safety	P+ Overall – Detail of some individual schemes is unknown as this stage, and so some impacts on crime levels and road/personal safety is uncertain, but for others we are able to say that the packages mostly will have a potentially positive impact. With more people using the public realm, lighting, and conflicts between users will need careful consideration. Packages 2, 3 and 6 include some significant public transport and infrastructure proposals, and these packages should be mindful of a potential increase in Hate Crime incidents,

	personal security using public transport and road safety issues with motorway capacity improvements.
4. resources	P+/U Overall – There should not be too much of a need for large amounts of construction materials for the plan overall, but there is some uncertainty without detailed scheme designs. Although Package 4 would require significant resource for the Park and Ride site, new M1 slip roads and a new A405 cycleway. Packages 2, 3 and 8 also show a potential negative impact with regards to construction materials for various infrastructure schemes.
5. waste disposal	U Overall – it is uncertain at this stage whether or not the SW Herts G&TP would have a positive or negative impact on levels of waste produced that would require disposal, as detailed scheme design is not known. Highways policy should be revisited to check that the Council aims to move away from waste disposal to minimisation, reuse, recycling and recovery. Packages 1, 2, 3, 4, and 8 have been recognised as needing to consider waste from significant infrastructure schemes, in particular the new Junction 8a M1, and the Abbey Line Park and Rail hub proposals.
6. water	U Overall – This will depend on detailed scheme design and the use of SuDS to prevent any surface runoff from infrastructure schemes from entering local water courses, the assessments have highlighted that the Abbey Line Park and Rail hub will need careful consideration with drainage as the location could be fairly close to the River Ver.
7. Soil	U Overall – Similar to impacts on the water environment, impacts on the soil environment will depend on the detailed scheme design and the use of SuDS to prevent any surface runoff entering the soil environment adjacent to any scheme. There is the potential that some of the new infrastructure schemes would result in some soil capping/loss of soil habitat in particular in Package 4, and the new proposed M1J8a and any new link roads.
8. air / noise	P+ Overall – The 9 packages aim to reduce car use and provide infrastructure to enable modal shift to more sustainable modes of transport such as walking, cycling and passenger transport which can bring improvements to local air quality and noise levels. At this stage it is only a potential positive impact as it is reliant on behavioural change. A number of the proposed infrastructure schemes (new motorways junctions, capacity improvements,

	new link roads) could facilitate car use but projects of this scale would be subject to a full EIA.
9. sustainable transport	✓ Overall – The 9 packages should have a significant positive impact on improving the choice of sustainable modes for the South West Herts area. However, any major junction improvements, new slip roads, car park improvements, link roads could facilitate car use and should consider the needs of other modes and follow the new LTP4 Transport User Hierarchy.
10. adapt to climate change	P+ Overall – There is some uncertainty at this stage whether or not the schemes would have a significant positive or negative impact on issues such as localised flooding incidents, as detailed scheme design is not known. Any new infrastructure provided will need to be future proofed against further climate change issues such as flooding and high summer temperatures, and colder winters. A number of schemes in Package 1 and 6 are near to the River Bulbourne and would need to consider impacts of flooding.
11. greenhouse gases	P+ Overall – with many of the schemes aiming to achieve modal shift to sustainable modes, this should see a reduction in emissions from vehicles, however caution will be needed with any major infrastructure schemes, so that they do not result in further traffic growth and emissions (Packages 1, 2, 3, and 6).
12. energy	P+ Overall – modal shift to more sustainable modes should reduce the amount of fossil fuels used by vehicles. However, any lighting required for new links, car parks, park and ride etc. should carefully consider the options available to use the most energy efficient lighting or solar if possible. The motorway junction improvements and new slip roads could facilitate car use and so increase the use of fossil fuels.
13. landscape/ townscape/green spaces.	P+ Overall – by reducing the numbers of vehicles on local roads this should provide improvements to the local landscape, townscape and green spaces. Any major junction improvements, link roads, new car parks (including park and ride) should be mindful of their visual impact on the landscape, townscape
14. Historic assets	P+ Overall – by promoting more sustainable modes this should have a positive impact on any local historic assets, but any of the infrastructure schemes should be mindful of any local historic assets (listed buildings, monuments etc.) and the HCC map of historic assets should be checked at

	the scheme design stage, to determine the location of any such protected sites. Gorhambury Estate would be impacted by the M1 proposals.
15. social exclusion	P+ Overall – Sustainable modes are affordable and available to all (especially walking and cycling) and would improve access to services and facilities within the towns in the South West Herts Plan area. Some of the infrastructure schemes that will improve capacity and provide new car parks or park and ride facilities will not provide many benefits to those on lower incomes and without access to a car.
16. empowerment	P+ Overall – Delivery of this growth and transport plan would have a potentially positive impact on empowering all sections of the community to make better transport choices and participate in local decision making.
17. employment/ economy	P+ Overall – Delivery of the schemes within the 9 packages would have a potentially positive impact on maintaining local employment, improving economic competitiveness and creating a vibrant economy, as the promotion of sustainable modes and the provision of key infrastructure should improve access to employment, and to a wider labour market, and reduce congestion which benefits the productivity of local businesses.
18.economic growth	P+ Overall – the packages would potentially have a positive impact on spreading economic growth evenly to deprived areas, as sustainable modes improve access to employments and services.
19. vitality/ viability of centres	P+ Overall – the 9 packages would have a potentially positive impact on maintaining the vitality and viability of existing centres, with sustainable transport schemes improving access to town centres and infrastructure schemes taking traffic and congestion out of the town centres, improving the public realm.

As can be seen from the above table, the cumulative impacts of the 9 packages generally have a positive impact on the SEA topics apart from a few instances where it will depend on scheme design and implementation.

The cumulative assessments have highlighted various issues that will need to be closely monitored around the impacts of any new infrastructure (such as new junctions, new car parks (including park and ride), new link roads), as if not carefully designed taking into account the new LTP4 Transport User Hierarchy then such schemes could facilitate car use and contribute to further traffic growth and local congestion, and could have significant negative impacts on local habitats, air quality and emissions and on the landscape/townscape. With uncertainties with exact

scheme designs at this early stage of the Growth & Transport Plan impacts on the local water and soil environments are difficult to assess with regards to drainage and the use of SuDS and the impacts of localised flooding, but scheme design should be mindful of these issues particularly those close to the River Ver and Bulbourne.

Any passenger transport schemes need to be mindful of not worsening any personal safety perceptions relating to having more people in the public realm, such as Hate Crime, and schemes should be consistent with the Herts Hate Crime Strategy. Any scheme that requires new infrastructure will require construction materials and require the disposal of construction waste, it is worth revisiting HIAMP policies on the use of recycled or local construction materials and the minimisation, reuse, recycling and recovery of construction waste to minimise any negative impacts. With modal shift to more sustainable modes, conflicts between road users will also need careful consideration in any scheme design, i.e. the use of road signs, and road space allocation. The key to success for any modal shift will be behavioural change, so promotion of any new scheme to local people and targeted groups should be included as part of the scheme.

### **6.3 Causal Chain Analysis (Indirect or Secondary Impacts)**

A Causal Chain Analysis has been undertaken which considers indirect or secondary impacts which are caused by the chain of events which emerge whilst delivering the South West Herts GTP. The causal chain analysis was based on the 9 packages proposed in the Growth & Transport Plan, and shows how the GTP objectives will be reached, and how during the process indirect/secondary positive (or negative) impacts will be caused. It shows a range of indirect impacts ranging from benefits to public health to dis-benefits including impact on air quality. The analysis can be seen in Appendix 5.

## 7. MONITORING

### 7.1 Introduction

Article 10(1) of the SEA Directive requires the significant environmental effects of plans and programmes to be monitored, in order to identify at an early stage unforeseen adverse effects, and to be able to take appropriate remedial action. It goes on to state that “The Environmental Report should provide information on ‘a description of the measures envisaged concerning monitoring’ (Annex 1 (i)). Full Information on the monitoring process is available in the LTP4 SEA Environmental Report ([www.hertfordshire.gov.uk/ltp](http://www.hertfordshire.gov.uk/ltp)).

### 7.2 Monitoring the South West Hertfordshire Growth & Transport Plan

Hertfordshire’s Local Transport Plan 4 includes a list of performance indicators for monitoring transportation issues and implementation across Hertfordshire. There are no requirements anymore to include mandatory performance indicators in a Local Transport Plan, but the County Council have decided that this is still the best way to monitor the effectiveness of a Plan, and indicators were chosen for their local significance.

To compile a list of indicators for the South West Herts Growth & Transport Plan, the LTP4 baseline list has been used as the starting point and the aim has been to tailor this where possible for the South West area of Hertfordshire. The LTP4 indicators have been investigated to see if data is available at the District/Borough or even town level. Data from the two evidence packs for Watford and Hemel Hempstead have also been used to form the baseline.

### 7.3 What needs to be monitored for the South West Herts GTP?

The table below shows the types of performance indicators and data that could be used to monitor the success of the delivery of the Growth & Transport Plan relative to a baseline, subject to availability and data collection processes being completed.

**Table 7.1 Environmental Baseline Data**

SEA Topic	Indicator / Data	Countywide data or Localised Data
Biodiversity	Condition of SSSIs (Sites of Special Scientific Interest)	Locations of SSSIs in Plan area
	Trees and Woodland	By district in plan area
Health	Childhood obesity (reception age, and Year 6)	Countywide and by District

<b>SEA Topic</b>	<b>Indicator / Data</b>	<b>Countywide data or Localised Data</b>
	Hertfordshire health walks (walks led)	Countywide, and by District in the plan area
	% of all cause adult mortality attributable to long term exposure to current levels of anthropogenic particulate air pollution	Countywide and District level data
Crime / Safety	Number of children killed & seriously injured in road traffic accidents	Countywide, and District level in plan area
	Number of people killed or seriously injured on roads in the authority	Countywide, and District level in plan area
	Number of slight injuries	Countywide, and District level in plan area
	% of compliance of speed limits	Countywide, investigate at a localised level in plan area
Resources	Condition of footways (% where maintenance should be considered)	Countywide, and awaiting new data from new collection method.
	Principal road condition - % of the network with negative residual life, where maintenance should be considered	Countywide, but localised data to be investigated.
	Non-principal classified road condition - % where structural maintenance should be considered	Countywide, but localised data to be investigated.
	Unclassified road condition - % where structural maintenance should be considered	Countywide, but localised data to be investigated.
	Overall roads condition index for Hertfordshire's roads	Countywide data.
Waste Disposal	Herts waste partnership overall recycling rate	Countywide, but localised data to be investigated.
Water	Rivers: number of water bodies ecological status (Colne Catchment)	Data available at catchment level only on the ecological health of waterbodies. Data on water supply and usage should be investigated for future

<b>SEA Topic</b>	<b>Indicator / Data</b>	<b>Countywide data or Localised Data</b>
		(used in previous years for Hertfordshire Quality of Life Report).
	Rivers: urban and transport reason for not achieving good status (Colne Catchment)	As Above.
Soil	Data gap	-
Air/Noise	% of population exposed to road, rail and air transport noise of 65 dB (A) or more	Countywide
	Complaints from aircraft noise	London Luton and Stansted Airport data
	Number of Air Quality Management Areas in Herts	Countywide and District data
	Annual mean nitrogen dioxide levels close to busy roads	Countywide, and local AQMA data
Choice of Sustainable Transport	% of all trips (under 3 miles) made by cycling	Countywide, but localised data to be investigated
	% of all trips (under 1 mile) made by walking	Countywide, but localised data to be investigated
	% of the total length of footpaths and other Rights of Way that were easy to use by members of the public	Countywide, but localised data to be investigated i.e. by district
	Children travelling to school. Mode share of sustainable school journeys (Age 5-10, and 11-16)	Countywide, but localised data to be investigated
	% of schools with travel plans	Countywide, and District level
	% of sustainable mode share for Hertfordshire residents	Countywide, but as this figure is taken from the CTS localised data to be investigated
	Number of bus passenger journeys (boardings per year, millions)	Countywide, but localised data to be investigated.
	% of passengers travelling to airports by non-car modes (Luton and Stansted	Luton and Stansted airport surface access data

<b>SEA Topic</b>	<b>Indicator / Data</b>	<b>Countywide data or Localised Data</b>
	% of employees travelling to airports by non-car modes (Luton and Stansted)	Luton and Stansted airport surface access data
Adapt to climate change	Data gap	-
Greenhouse gases	Per capita CO <sub>2</sub> emissions in the local authority area (tonnes)	Countywide, and District level
	Car ownership in Herts (cars per household)	Countywide, but localised data to be investigated.
	Congestion – journey time reliability in Hertfordshire	Countywide index number, but this indicator has to be further developed
	Number of ULEV vehicles registered in Hertfordshire	Countywide, localised data to be investigated
Energy	Energy Consumption	District level
Landscape/ townscape/ green spaces	Area of greenfield land lost other than to development that accords with development plans	Countywide, but localised data to be investigated.
	% of new homes built on previously developed land	Countywide, but localised data to be investigated.
Historic assets	Number of scheduled monuments	Countywide and Plan area
	Number of registered parks and gardens	Countywide and Plan area
	Number of listed buildings	Countywide and Plan area
Social Exclusion	% of new developments within 30 minutes by passenger transport of key services	Countywide TRACC modelling, investigate doing this by GTP areas
	TRACC Accessibility modelling by mode	Town level
Empowerment	Number of people achieving Level 2 of the National Cycling Training Standards	Countywide, but localised data to be investigated.
	Number of children achieving Level 2 of the National Cycle Training (Bikeability)	Countywide, but localised data to be investigated.

SEA Topic	Indicator / Data	Countywide data or Localised Data
Employment/ Economy	Bus services running on time	Countywide, but localised data to be investigated.
	Active enterprises in Hertfordshire	Countywide and District Level
	GVA per head	Countywide level
	Unemployment rates	Countywide level
	Travel to work destinations	County level, more localised data could be extracted from the County Travel Survey.
Spread Economic Growth to Deprived Areas	Income deprivation (affecting children and older people)	Countywide level
Vitality/viability of centres	Data gap	-

#### 7.4 Baseline Data Gaps

A number of gaps have been identified in the environmental baseline data. These will need to be considered through the monitoring process. The following table shows these gaps and how the County Council will deal with each through the monitoring process.

**Table 7.2: Environmental Baseline Data Gaps**

Baseline Gap	HCC Response
There is limited baseline data for the SEA objective 'to move away from waste disposal to minimisation, reuse, recycling and recovery'.	In co-operation with colleagues preparing a new HIAMP, HCC will investigate data available around the re-use of construction materials.
There are no indicators/data on the SEA Objective 'to ensure the efficient use of water, and safeguard water resources'.	Data around the Colne catchment has been included, further data to be investigated as part of the monitoring process on SuDS, Water resource stress, and any Water Framework Directive data.

<b>Baseline Gap</b>	<b>HCC Response</b>
There are no indicators/data on the SEA Objective 'to reduce contamination, and safeguard soil quality and quantity'.	This will be investigated as part of the monitoring process.
There are no indicators/data on the issue of adaptation to climate change i.e. dealing with greater flooding incidences.	As part of the monitoring process investigate data held by the flood management team i.e. number of flooding incidents. Does HCC have a climate change strategy? Will the new sustainability strategy cover climate change and adaptation?
There are no indicators/data available for the SEA Objective 'to ensure the sustainable supply and use of energy'.	Energy consumption data has been included at a district level for all fuels and road transport petroleum. The County Council will continue to look for other data e.g. electricity used for streetlights, ULEV charging point usage.
Perception of accessibility data.	HCC used to use an Environment Residents telephone survey, this survey is no longer undertaken. The County Council will investigate other sources of information.
There are no indicators/data available for the SEA Objective 'to maintain the vitality and viability of existing centres'.	To be investigated further during the monitoring process, particularly active enterprises at a town level.
Confirmation needed from the Environmental bodies on definitions for biodiversity sites and heritage assets.	Difficulty accessing current data on conservation areas. Further advice is required from Historic England on providing baseline data for designated and non-designated heritage assets, and the 'setting' of heritage assets. Further advice is also required from Natural England on providing baseline data for statutory and non-statutory biodiversity sites.

## 7.5 Monitoring Recommendations

When looking at the baseline data for the South West Hertfordshire area, a number of key areas were identified that would need monitoring throughout the delivery of the Plan, for indicators and data that are showing worsening trends, or are consistently not meeting targets. These areas are:

- Road congestion – specifically urban traffic in peak hours, and the rise in car ownership figures;
- The need to limit carbon dioxide, and nitrous oxide emissions;
- Air quality and the number of Air Quality Management Areas (AQMAs);

- Noise pollution;
- Childhood obesity exacerbated by lack of active travel.

### **7.5.1 Effects on Congestion**

Congestion is an issue in the county occurring both in urban areas and on the major routes particularly in the peak hours. The County Travel Survey in 2018 revealed that congestion and longer journey times is the second most important transport issue for households participating in the survey (63.1% of households), the number one issue being road condition. St Albans residents (68.3%) and Three Rivers residents (64.4%) consider congestion to be a slightly bigger issue than Dacorum (61.8%) and Watford (60.6%) residents. Peak hour congestion reference flow maps show that in the South West Herts GTP Plan area serious congestion occurs on the M25, the M1 (J8-10) and the A411 coming into Watford.

Congestion can have adverse impacts, not just on the environment but on society and the economy also. Economic impacts include the amount of lost productive time in businesses due to the network being heavily congested particularly during the peak periods. Social impacts can include the anxieties associated with congestion and the health impacts of poor air quality and other environmental issues to which congestion contributes.

### **HCC Response**

DfT publish average speed data tables detailing a variety of information on the Strategic Road Network. Table CGN050 1b shows the average speed on local 'A' roads by local authority by year, and was used by the County Council as a performance indicator to monitor congestion and average journey times in the County. The County Council are now in the process of developing a new method of calculating congestion for LTP4. The new LTP4 performance indicator 'Journey time reliability in Hertfordshire' is yet to be defined and developed. Reliability needs to be defined, and whether or not it will be a countywide indicator or area specific.

The SW Herts GTP aims to reduce congestion and improve journey times in the plan area by improving connectivity by sustainable modes and providing a greater choice of attractive alternatives to private car transport. With coherent delivery of packages of sustainable transport infrastructure improvements and targeted promotion it is hoped that sufficient modal shift could be achieved to reduce car use and improve journey times for all users.

### **7.5.2 Effects on Climate Change**

Greenhouse gases emitted from vehicles contribute to around a quarter of the total amount of greenhouse gases emitted in the UK. Although scientific data allows us to

roughly estimate how many tonnes of carbon dioxide are emitted from vehicles, this is not exact and depends on a number of factors. These include: numbers of vehicles passing through the county; which roads are used; types of vehicle; the fuel efficiency of the vehicles; and the average speed. The wide-ranging factors make greenhouse gas emissions from transport complex and difficult to assess. However, because the predicted impacts of climate change are particularly severe and given that a large proportion of emissions come from transport, it is increasingly important for this to be monitored and reduced to help achieve emission reduction aims.

It is not just the most direct impacts which need to be considered, but also those which are not always as obvious, such as how climate change will affect the transport network. If recent trends towards drier summers and more intense periods of rain continue, this will potentially have an impact on a number of aspects of the asset. As well as the potential impact on drainage, such changes could increase the rate of deterioration of roads and other assets from the effects of standing water as well as subsidence and ground heave'. Recent winters have seen more marginal weather with temperatures frequently fluctuating around zero. Although not as severe as prolonged periods of lower temperatures, this freeze/thaw cycle can increase the rate of damage to roads as well as placing extra demands on the winter service.

Although there is recognition of the potential impacts of climate change on the transport network, Hertfordshire currently does not have a direct indicator or data set to monitor how the transport network is being made resilient to the potential impacts of climate change.

## **HCC Response**

The LTP4 has an emissions reduction policy and an air quality policy, both outline how carbon dioxide and nitrogen dioxide emissions will be reduced at a county level. The SW Herts Growth & Transport Plan includes an objective 'to reduce transport related emissions by embracing new technologies and encouraging sustainable travel modes'. The SW Herts GTP also includes an objective to 'Ensure new infrastructure and streets are resilient to changing environmental conditions'.

National Indicators for measuring carbon emissions have been set up and are monitored by the Council and districts/boroughs. These are contained within the LTP4 and will be monitored accordingly. The Department for Business, Energy and Industrial Strategy annually releases CO<sub>2</sub> emissions data from all sources including road transport. The County Council will continue to use such data sets to help identify trends and particular issues.

The second important issue is that there is currently no performance indicator for significant flooding events affecting Hertfordshire's local roads. It will be investigated

if data is collected by Highways, with the aim of developing an indicator to estimate whether flooding incidents are increasing and whether they are being dealt with effectively.

Current schemes are undertaken to rectify problems on a site by site, case by case basis rather than on a network wide analysis. There is a limited preventative maintenance programme, with the majority of the service reactive in nature. The ongoing and future potential impact of climate change as applicable to the drainage asset has not been quantified.

### **7.5.3 Effective Monitoring of Air Pollution**

The third area of concern is that of ensuring a sufficient monitoring mechanism is in place for air pollution monitoring. Air quality is particularly difficult to assess, as once the data is collected it takes specialist knowledge to analyse and interpret the data appropriate for the purpose required. There is also a lack of air quality evidence in the county, as monitoring not consistent across all ten district/boroughs.

### **HCC Response**

Air pollution and its cumulative impacts are considered in the development of any substantive scheme and mitigation measures will be investigated and put in to place to ensure adverse impacts on air quality are managed and minimised as far as possible. Major schemes also have to undergo an EIA assessment which includes air quality as an objective.

The SW Herts GTP includes an objective to 'improve public health and quality of life through encouraging and enabling active travel and reducing transport-generated air and noise pollution'. The SWH GTP identifies areas of particular air quality concern, and the packages on the whole seek to improve sustainable transport infrastructure and enable more active and sustainable travel choices as the way to address congestion and air quality problems in the area.

There is some county-wide monitoring of air pollution, but levels are influenced by a variety of factors and not just transport.

All local authorities with Air Quality Management Areas (AQMA) where transport is a primary factor are required to develop joint Air Quality Action Plans. Hertfordshire County Council continues to work in partnership with district and borough councils to develop and monitor joint action plans for the AQMA in the South West Herts area. The County Council is also working with other authorities on preventative measures, to ensure that no further AQMA arise. Evidence will continue to be collected and the County Council will provide highways engineers with more information on the

effects schemes can have on air quality, so that air quality issues can be considered at an early stage when schemes are designed.

The percentage of mortality attributable to particulate air pollution is slightly higher in Watford (5.9%) compared to the other 3 districts in the plan area.

#### **7.5.4 Effective Monitoring of Noise Pollution**

Noise from traffic and aircraft is an element of transport's impact on the environment. While complaints about traffic noise are relatively few there are locations where residents are subject to high levels of general noise or to occasional or frequent high levels as a result of particularly noisy vehicles, sometimes associated with anti-social behaviour.

Noise pollution including that from vehicles on roads should be monitored by local government every five years using strategic noise maps, from March 2012 onwards (under the Environmental Noise (England) Regulations 2006).

#### **HCC Response**

Traffic noise will be addressed where feasible but there is no easy cost-effective solution for most problems. Noise reducing surfaces and even noise barriers may be appropriate and will normally be provided as part of wider schemes while quieter vehicles, partly as a result of older ones being replaced and quieter electric vehicles, may provide some solution in the longer term. Aircraft noise, including that from helicopters, affects most parts of the county to varying degrees and individuals' reaction to noise also varies. Aircraft noise can only be addressed in conjunction with the industry and the government, and there is no action the County Council can take to mitigate its impacts. The County Council will work with the Department for Environmental, Food and Rural Affairs (DEFRA) on Action Plans as a result of the noise maps when required.

The South West Herts GTP includes an objective 'Improve public health and quality of life, through encouraging and enabling active travel and reducing transport-generated air and noise pollution'. The GTP sees this objective particularly applies in residential neighbourhoods and town centres, where the focus of packages is enabling more active and sustainable transport, and in some locations proposing interventions to encourage traffic on to more appropriate routes.

#### **7.5.5 Childhood Obesity**

Regular monitoring of weight is undertaken on children in Reception and Year 6 (by the National Child Measurement Programme) and the numbers of children who are obese or overweight is continuing to rise in some areas. The problem is that this

issue is not only linked with lack of exercise, e.g. numbers of children walking and cycling, but also with food intake. However, the LTP4 can still monitor this even though reducing obesity levels must be a partnership exercise, combining efforts with the health and education authorities.

## **HCC Response**

The LTP4 recognises transport's contribution to wider issues, of which health is one. Extensive work has been focused on school travel and increasing the number of schools producing Travel Plans. HCC continue to work with schools in the county to encourage children of all ages to use more sustainable modes of travel to get to their school, highlighting the benefits of doing so and offering many incentives. The Influencing Travel Behaviour Policy in the LTP4 reads:

*“Supporting school travel plans, and working closely with parents, pupils, teachers and local residents to deliver a network of more sustainable transport links to school.”*

This policy will be delivered through Hertfordshire's Sustainable Modes of Travel Strategy (SMoTS) for Schools and Colleges. SMoTS is a requirement of Section 76 of the Education Act 2006 and aims to:

- Reduce the use of the car for journeys to, from and between educational establishments
- Improve accessibility to, from and between educational establishments
- Improve child road safety
- Improve child health
- Improve the quality of the local environment

The South West Herts Growth & Transport Plan also includes an objective 'to improve public health and quality of life, through encouraging and enabling active travel.....'.

The SW Herts GTP objectives and packages focus on improving sustainable transport including walking and cycling links and making active and sustainable travel a more attractive choice. The packages of schemes would therefore help encourage people to travel actively more often, so increasing their level of physical activity. Its proposals are therefore complementary to the SMoTS objectives. Although monitoring obesity rates is useful, the transport network is only one part of the jigsaw in addressing the obesity issue. Monitoring the number of trips by walking and cycling in the area of the plan and trends in this data can help monitor the effect of the GTP and its proposals.

### **7.5.6 Additional Monitoring Identified as a Result of the SEA Assessments**

From the assessments of the 9 packages the following was highlighted as needing monitoring once the South West Herts GTP is adopted and delivery and implementation starts:

- It is recommended that any 20mph zone implemented is monitored to determine impacts on air quality and emissions, as current data is minimal. Approach the relevant District/Borough air quality officer to see what air quality data is collected in each 20mph zone delivered.
- Monitor promotion and marketing for any new schemes delivered, as this is key to the uptake of any new sustainable transport provision, particularly if there has been targeted/tailored promotion i.e. employees of industrial areas. Any promotion or marketing will be subject to resource available at the time.
- Any changes to business or school travel plans as a result of the schemes delivered.
- The integration of the Hertfordshire Hate Crime Strategy in the policy level, rather than individual transport schemes in the plan area, for example issues of Hate Crime should be considered in the LTP4 Intalink Bus Strategy.
- Monitor HCCs emerging policies on Electric Vehicles and charging and the impacts this could have on the plan area i.e. impacts of the proposed Intelligent Mobility Strategy.

### **7.6 SEA Monitoring and Review Timeframes**

It is recommended that the process for monitoring and review be undertaken on a regular basis. It is anticipated that the monitoring and review for the LTP4 SEA will be annual and will be reported as a separate SEA Monitoring Report. Monitoring of the SW Herts GTP SEA will be included within this LTP4 SEA Monitoring Report.

## 8. CONCLUSIONS

Overall, the analysis of the 9 Packages of Interventions of the South West Hertfordshire Growth & Transport Plan has concluded that there would be no significant negative impacts on the environment in the Plan area as a result of the delivery of the Growth & Transport Plan. The emphasis of the South West Herts Growth & Transport Plan is to promote modal shift to non-motorised modes and public transport, reducing car dependency which should have fewer negative impacts on the environment compared to car travel.

The SEA has identified some significant negative impacts for some of the road infrastructure schemes proposed (i.e. new links, major junction improvements etc.) as these schemes if not carefully designed could facilitate car use and could have negative impacts on local SSSIs and historic assets. At this stage it is difficult to determine the exact impacts as the schemes are only at concept stage, further detailed environmental assessments would need to be undertaken i.e. EIA.

Delivery and implementation will be key in determining the extent of the environmental effects of the SW Herts GTP, but this will depend on scheme designs and the level of funding available.

The collection of the baseline data (along with the assessments) has highlighted a number of key areas that will need to be monitored over the lifetime of the GTP (Section 7.5). Collection of the baseline data has also shown that there are gaps in data at both a county level and a local level (for the plan area); some of these will need further investigation and research to fill the gaps.

The assessments in particular, have highlighted:

- That enhancements to the public realm score highly for SEA, with significant positives to health, road safety, fear of crime, and access to employment and town centres.
- That passenger transport schemes need to be mindful of personal security, and perceptions, in particular Hate crime is not currently recognised specifically in the GTP;
- The SEA has identified some significant negative environmental impacts for some of the infrastructure proposals (new link roads, major junction improvements, and passenger transport infrastructure), and recommends that a full EIA should be considered to look at environmental impacts in more detail, and identify, avoid and mitigate any negative impacts;
- That to achieve maximum modal shift that promotion is key. Schemes should be widely promoted locally and would benefit from targeted promotion to key groups.

- That HIAMP practices/policies are revisited to determine current policy on the use of recycled/local construction materials and the recycling of construction waste, and any data, particularly for the larger infrastructure projects.
- With schemes encouraging the use of sustainable modes, there will be more people in the public realm. The SEA has highlighted the potential for conflicts between different road users, and careful consideration will be required at the design stage i.e. road signage and road space allocation. Cycle training should also be widely publicised.
- The following should be considered as part of any contracted works: lighting (fear of crime and energy efficiencies), SuDS for drainage issues and ensuring local water courses are not contaminated, soil removal, construction materials used. Checking the HCC historic assets and flooding maps.

No significant negative cumulative impacts have been identified overall, but the SEA cumulative assessment recommends that the GTP would need to carefully monitor the delivery of major road infrastructure as some schemes could facilitate car use and therefore contribute to traffic growth and congestion impacting on local habitats, air quality and emissions and on the landscape/townscape.

## **9. Adoption of the South West Hertfordshire Growth & Transport Plan**

The South West Herts Growth & Transport Plan has been adopted by Hertfordshire County Council as a supporting document of the Local Transport Plan (LTP4), and now sets the transport strategy for the area it covers.

The South West Hertfordshire GTP is the first of a suite of new 'Growth & Transport Plans' and covers the large towns of Watford and Hemel Hempstead and their interactions with St Albans. This area is one of the most congested in Hertfordshire and faces significant levels of housing and employment growth in the coming years. With clear challenges around funding the transport infrastructure needed to support growth, the GTP series aims to support the County Council to make a good case for investment based on robust evidence and positive collaborative planning. The GTPs provide an opportunity to plan for the cumulative transport needs of this planned development growth, and recognise this in conjunction with much broader needs to maintain and improve the environment and quality of life of residents, employees and visitors.

The South West Herts GTP is not intended to prescribe a rigid forward programme of works, but to act as a decision-making guide to steer future direction of investment and prioritisation in transport. As far as possible, the GTP provides a flexible decision-making framework built upon currently available evidence and forecasts, and it should evolve in response to changing factors.

It is recognised that interventions are only defined at a broad, conceptual level of detail and therefore more detailed work may reveal important changes to interventions, or alternative interventions, which could also achieve the same aim and goals of each Package.

There are many unknowns that will influence the implementation of the South West Herts GTP's proposals and vision:

- the availability of funding;
- scale, location and build-out of planned development;
- travel behaviour;
- development and take-up of innovative new transport technologies;
- social, economic and environmental factors.

These could all exert an influence on future decision making.

The next step in implementing the GTP will involve the absorption of interventions into the district/borough Local Plans and accompanying Infrastructure Delivery Plans. This is an important step as it will place the concept proposals in the context of local development needs and add clarity on infrastructure triggers.

Proposals will have to be assessed and developed in more detail using existing or new tools including transport models. This will help to refine and validate proposals in the local and strategic context.

The schedule of interventions will be adopted by HCC and entered into the county council's ranking processes and forward programme of works. This will prioritise interventions and confirm if/when more detailed work needs to be carried out in order to eventually implement interventions.

The county council will continue to seek and pursue funding opportunities to support and enable the development of scheme ideas and delivery of projects arising from the South West Herts Growth & Transport Plan. Alongside other supporting strategies and policies of the Local Transport Plan and the district/borough Local Plans, the GTP will help provide the narrative in support of funding bids and preparation of business cases.

To ensure the GTP responds to an ever-changing development context and provides a robust framework for strategic spatial transport planning, a periodic update of the strategy will be required - especially where there is a significant change in local circumstances which may modify growth and transport challenges and opportunities.

The South West Herts GTP is based on levels of growth set out in the current adopted set of Local Plans for the south west Hertfordshire authorities. It is likely a review of this GTP will be required within the next few years to support and respond to the new Local Plans being developed by the South West Herts local planning authorities, which are expected to establish substantially higher housing targets to 2036. The authorities are also working on a Joint Strategic Plan that will identify longer term strategic growth requirements for the whole area and guide future Local Plans.