

Agenda



AGENDA for a meeting of the DEVELOPMENT CONTROL COMMITTEE in the Council Chamber, County Hall, Hertford on WEDNESDAY, 21 DECEMBER 2016 at 10.00A.M.

MEMBERS OF THE COMMITTEE (10) (Quorum = 3)

D J Barnard, D S Drury, G R Churchurch, M J Cook, J Lloyd, M D M Muir (Vice-Chairman), P A Ruffles, S Quilty, I M Reay (Chairman), A D Williams

AGENDA

AUDIO SYSTEM

The Council Chamber is fitted with an audio system to assist those with hearing impairment. Anyone who wishes to use this should contact the main (front) reception.

PART I (PUBLIC) AGENDA

Meetings of the Committee are open to the public (this includes the press) and attendance is welcomed. However, there may be occasions when the public are excluded from the meeting - for particular items of business. Any such items are taken at the end of the public part of the meeting and are listed below under "Part II ('closed') agenda".

MINUTES

To confirm the minutes of the meeting of the Development Control Committee held on 19 October 2016 (attached).

PUBLIC PETITIONS

The opportunity for any member of the public, being resident in or a registered local government elector of Hertfordshire to present a petition relating to a matter with which the Council is concerned, and is relevant to the remit of this Committee, containing 100 or more signatures of residents or business ratepayers of Hertfordshire.

Notification of intent to present a petition must have been given to the Chief Legal Officer at least 20 clear days before the meeting where an item relating to the subject matter of the petition does not appear in the agenda, or at least 5 clear days where the item is the subject of a report already on the agenda.

[Members of the public who are considering raising an issue of concern via a petition are advised to contact their local member of the Council. The Council's arrangements for the receipt of petitions are set out in Annex 22 - Petitions Scheme of the Constitution.]

If you have any queries about the procedure please contact Lisa Heaton on telephone no. (01992) 555456.

MOTIONS (Standing Order C9)

Motions may be made on a matter relevant to the Committee's terms of reference (other than motions relating to a matter on the agenda, which shall be moved when that matter is discussed).

Motions must have been notified in writing to the Chief Legal Officer by 9 am on the day before the meeting and will be dealt with in order of receipt.

No motions had been submitted at the time of agenda dispatch.

- 1. APPLICATION FOR PROPOSED 3.9KM NORTHERN BYPASS OF THE A120 AND FLOOD ALLEVIATION SCHEME, COMPRISING A NEW 9.3M WIDE SINGLE CARRIAGEWAY ROAD, VERGES, ROUNDABOUT JUNCTIONS (INCLUDING LIGHTING), BRIDGES, EMBANKMENTS, DRAINAGE, LANDSCAPING AND ASSOCIATED ENGINEERING AT A120, LAND NORTH OF LITTLE HADHAM, HERTFORDSHIRE**

Report of the Chief Executive and Director of Environment

Local Member: Graham McAndrew

- 2. PLANNING APPLICATION (0 / 0815-16 CM0888) FOR PROPOSED EXTENSION TO EXISTING BUILDING TO ENCLOSE GREEN WASTE COMPOSTING ACTIVITIES AT REVIVA COMPOSTING LTD, ELSTREE HILL SOUTH, ELSTREE, HERTFORDSHIRE WD6 3BL**

Report of the Chief Executive and Director of Environment

Local Member: Caroline Clapper

OTHER PART I BUSINESS

Such other Part I (public) business which, the Chairman agrees, is of sufficient urgency to warrant consideration.

PART II ('CLOSED') AGENDA

EXCLUSION OF PRESS AND PUBLIC

There are no items of Part II business on this agenda but if an item is notified the Chairman will move:-

*"That under Section 100(A)(4) of the Local Government Act 1972, the press and public be excluded from the meeting for the following item of business on the grounds that it involves the likely disclosure of exempt information as defined in paragraph ** of Part 1 of Schedule 12A to the said Act and the public interest in maintaining the exemption outweighs the public interest in disclosing the information."*

If you require a copy of any of the reports mentioned above or require further information about this agenda please contact Lisa Heaton, Democratic Services Officer on telephone no. 01992 555456 or email: lisa.heaton@hertfordshire.gov.uk

Agenda documents are also available on the internet
<https://cmis.hertfordshire.gov.uk/hertfordshire/Calendarofcouncilmeetings.aspx>

**KATHRYN PETTITT
CHIEF LEGAL OFFICER**

Minutes



To: All Members of the
Development Control
Committee, Chief Officers, All
officers named for 'actions'

From: Legal, Democratic & Statutory Services
Ask for: Nicola Cahill
Ext: 25554

DEVELOPMENT CONTROL COMMITTEE

19 OCTOBER 2016

ATTENDANCE

MEMBERS OF THE COMMITTEE

D J Barnard, G R Churchard, D S Drury, M J Cook, M D M Muir, S Quilty, I M Reay
(Chairman), A D Williams

ALSO PRESENT

A Stevenson

Upon consideration of the agenda for the Development Control Committee meeting on 19 October 2016 as circulated, copy annexed, conclusions were reached and are recorded below:

Note: No declarations of interest were made at this meeting.

CHAIRMAN'S ANNOUNCEMENTS

- (i) If a Member wished their particular view on an item of business to be recorded in the Minutes, it would be recorded on request by that Member.
- (ii) Members were reminded of their obligation to declare interests at the start of the meeting.

PART I ('OPEN') BUSINESS

MINUTES

The minutes of the Committee meeting held on 22 September 2016 were confirmed as a correct record

PUBLIC PETITIONS

There were no public petitions.

ACTION

Nicola Cahill

1. APPLICATION FOR AN ENLARGED ROUNDABOUT AT ANCHOR LANE AND THE A602; A SMOOTHER ALIGNMENT OF WESTMILL ROAD BETWEEN THE ENTRANCE TO WESTMILL QUARRY IN THE NORTH, AND SOUTH OF THE WESTMILL FARM ENTRANCE; AND A WIDENED WESTBOUND APPROACH AND INSTALLATION OF TRAFFIC SIGNALS AT THE JUNCTION OF THE A602 AND THE A10, INCLUDING THE CHANGES TO VERGES, LIGHTING, DRAINAGE, LANDSCAPING, AND ASSOCIATED ENGINEERING OPERATIONS NORTH-WEST OF WARE, HERTFORDSHIRE.

[Officer Contact: Sharon Threlfall Tel: 01992 556270]

- 1.1 The Committee considered planning application reference number 3/1245-16 for highway works on the A602 at the Anchor Lane junction, Westmill Road and the A10 junction to the north-west of Ware, Hertfordshire.
- 1.2 Members were advised that the County Council were seeking to improve the A602 between Stevenage and Ware. Members were advised that whilst the application would deliver a number of improvements of its own, the application also formed part of a wider scheme. Members were advised that this was the second of a suite of four applications.
- 1.3 The application sought planning permission for an enlarged roundabout at Anchor Lane and the A602, smoother alignment of Westmill Road between the entrance to Westmill Quarry in the north, and south of the Westmill Farm entrance, a widened westbound approach and the installation of part-time traffic signals at the junction of the A602 and the A10 to include changes to verges, lighting, drainage, landscaping and associated engineering operations. It was confirmed to the Committee that all of the proposed works would take place within the highway boundary.
- 1.4 A total of 418 properties had been consulted in respect of the consultation to which 19 responses had been received, 16 of which had objected to the application. The majority of objectors cited amenity impact. Improvements to the area were considered by officers to outweigh any negative impacts created by the scheme or the associated works.
- 1.3 Prior to questions and debate the Committee were addressed by Richard Boutal, Head of Major Projects Group (HCC), speaking in support of the application.

- 1.5 The Committee were advised that Hertfordshire County Council had identified a need for improvements to the A602 via traffic modelling. The scheme would maximise the use of the land within the highway boundary, beyond current capacity requirements of the network.
- 1.6 In debate and in response to a question from the Local Member, the Committee was pleased to learn that the scheme included a right-hand-turn lane into the Household Waste Recycling Centre which would improve traffic flow, and in particular would assist where instances of queuing occurred.
- 1.7 Owing to the increased visibility at the turning into Westmill Village when compared with the entrance of the quarry, and the increased distance from the roundabout, a right-hand-turn lane into the village had not been included within the proposed scheme. Whilst the right-hand-turn lane at the entrance to the quarry was anticipated to provide some additional capacity, the proposal was not intended to address issues arising as the result of queuing. Members were also advised that a deceleration lane for the Biffa landfill site would help to address the concerns of landfill vehicles parking on the verge. However, HGV queuing at the landfill facility was in part attributable to enforcement issues, comments from the committee would be feedback to the enforcement team.
- 1.8 In response to a question from a Member the Committee were advised that flooding and draining issues at Hooks Cross had been recognised by the County Council. Improvements to the area were not proposed at this time, but were a future aspiration of the County Council.
- 1.9 In debate Members sought assurances that safety concerns associated with the proposal had been adequately considered. Officers advised that the smoother alignment of the highway was intended to improve visibility, along with the proposed right hand lane turns forming an additional safety feature. Members requested that officers re-evaluate the application proposal with a view to the inclusion of additional pedestrian safety features where possible. Members were advised that applications were not congruent along the length of the road as such it would not be possible for a full cycle scheme to be provided. Officers advised that gaps in provision could lead to confusion for cyclists rather than increase safety; as such cyclist provision had not been included within the planning application.
- 1.10 It was anticipated that the suite of applications in relation to the A602 would be taken forward by a contractor on a staggered basis. The contractor would be expected to produce a Traffic Management Plan to minimise disruption as a result of the works as much as possible.

Brian Owen/
Richard
Boutal

**CHAIRMAN'S
INITIALS**

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CONCLUSION

1.11

That the Chief Executive and Director of Environment be authorised to grant planning permission subject to the following ELEVEN conditions: -

1. Time limit for commencement
2. Approved plans and documents
3. Landscaping plan; including tree protection and habitat improvements
4. Drainage strategy
5. Infiltration tests
6. Landfill gas monitoring
7. Ground investigations
8. Traffic management plan
9. Construction environmental management plan
10. Lighting
11. Fencing/boundary treatment

**KATHRYN PETTITT
CHIEF LEGAL OFFICER**

CHAIRMAN _____

**CHAIRMAN'S
INITIALS**

.....

HERTFORDSHIRE COUNTY COUNCIL

**DEVELOPMENT CONTROL COMMITTEE
WEDNESDAY, 21 DECEMBER 2016 AT 10.00 AM**

EAST HERTS BOROUGH

Agenda Item
No.

1

APPLICATION FOR PROPOSED 3.9KM NORTHERN BYPASS OF THE A120 AND FLOOD ALLEVIATION SCHEME, COMPRISING A NEW 9.3M WIDE SINGLE CARRIAGEWAY ROAD, VERGES, ROUNDABOUT JUNCTIONS (INCLUDING LIGHTING), BRIDGES, EMBANKMENTS, DRAINAGE, LANDSCAPING AND ASSOCIATED ENGINEERING AT A120, LAND NORTH OF LITTLE HADHAM, HERTFORDSHIRE

Report of the Chief Executive and Director of Environment

Author: Rob Egan, Senior Planning Officer (Tel: 01992 556224)

Local Member: Graham McAndrew

1. Purpose of Report

- 1.1 To consider planning application reference 3/2364-15 for the proposed 3.9km northern bypass of the A120 and flood alleviation scheme, comprising a new 9.3m wide single carriageway road, verges, roundabout junctions (including lighting), bridges, embankments, drainage, landscaping and associated engineering at A120, land north of Little Hadham, Hertfordshire.

Procedural matters

- 1.2 This planning application has been submitted by joint applicants, namely Hertfordshire County Council and the Environment Agency, with the former concentrating on the provision of the proposed bypass, and the latter concentrating on the delivery of the proposed flood alleviation scheme. The planning application is accompanied by an Environmental Statement (ES). Further to the submission of the application, the applicants submitted addendums to both the Planning Statement and to the Environmental Statement for the consideration of the local planning authority. These addendums primarily related to design changes to the proposed scheme as a result of the identification of the need for the incorporation of further ecological mitigation, particularly in relation to bats, as well as a statement covering Green Belt policy considerations; something that had been omitted from the initial application. The submission of the addendums necessitated a re-consultation exercise, with all original consultees being consulted on the details of the addendums. The contents of the addendums will be explained further within this report.

2 Summary

- 2.1 There is a compelling need for both the bypass and its associated flood alleviation measures. The need for the bypass is identified in a number of policy documents, and its construction and operation would give real benefits in terms of journey times along the A120, alleviating the present congestion that takes place within the village of Little Hadham. The flood alleviation scheme would reduce the risk of flooding from a significant number of residential properties in Little Hadham.
- 2.2 The bypass would, however, result in impacts on other roads and traffic junctions along this stretch of the A120. In order to mitigate for this, there is a commitment from the Highway Authority to carry out continued monitoring into the future of the scheme, addressing the need for future mitigation measures – including the possibility of a further local bypass to the village of Standon – as and when these measures are required.
- 2.3 Part of the development results in development within the Green belt. There is an argument that such development is considered appropriate within such a location. However, if considered inappropriate, there are very special circumstances that clearly outweigh the harm to the openness of the Green Belt. Similarly, the main part of the development takes place within the Rural Area Beyond the Green Belt. The proposed bypass is unable to avoid such land designations and the benefits of the scheme clearly outweigh the harm to the Rural Area.
- 2.4 The development will travel through a rural agricultural landscape. There will be visual and landscape impacts resulting from this, with adverse impacts on Landscape Character Areas. However, these can be mitigated to varying degrees with the introduction of suitable landscaping measures.
- 2.5 In respect of residential amenity, the visual impact of the scheme will undoubtedly detract from certain properties, although this is not considered to be to any substantial degree and the benefits of the bypass outweigh this harm. There are overall benefits of the bypass to air quality in the centre of Little Hadham due to the reduction in traffic, with no other sensitive receptors having been identified as suffering significantly from any reduction in air quality. Similarly, in terms of noise, some communities may experience an increase in noise levels, but others will experience relatively large reductions in noise as a result of traffic moving on to the bypass. Vibration from construction works should not adversely impact upon the vast majority of residential properties but, where this does occur, it will not be for any prolonged period of time and can be controlled by condition.
- 2.6 In respect of the historic heritage, it is concluded that there is less than substantial harm to identified heritage assets within the vicinity of the scheme. Furthermore, the reduction in traffic within the centre of Little

Hadham gives benefits to the wider setting of the Little Hadham Conservation Area as well as a number of listed buildings that front the existing A120. Archaeological impacts of the scheme can be addressed through the imposition of conditions seeking proper studies be carried out both prior to, and during, construction of the bypass.

- 2.7 Public rights of way are affected by the development, with temporary and permanent diversions proposed as part of the scheme and its construction. However, these are considered to be acceptable, having no overall detrimental impact on the use of these.
- 2.8 Finally, the scheme will have an impact on ecology and biodiversity, especially in relation to a colony of barbastelle bats that are found close to the proposed bypass, as well as great crested newts. However, both on-site and off-site mitigation addresses these concerns.
- 2.9 Consequently, taking into account the environmental information submitted with the planning application, it is recommended that planning permission be granted for the proposed development, subject to the imposition of a number of conditions, and referral to the Secretary of State, as set out in the final chapter of this report.

3. Description of the site and proposed development

- 3.1 The A120 is an important east-west road link in the county's primary road network. Starting at the A10 at the village of Standon at its western-most point, the road travels through Little Hadham some 6 kilometres to the east before bypassing Bishop's Stortford to the north of the town and joining the M11 at junction 8. The road continues into Essex and – apart from a stretch at Colchester where it joins with the A12 – continues uninterrupted as it travels to its destination at the port of Harwich. In Essex, parts of the A120 are dual-carriageway, although the relatively short section in Hertfordshire is single-carriageway. The A120 in Hertfordshire also serves as part of an official signed emergency diversion for the M11 and M25.
- 3.2 The stretch of the A120 from a point west of Little Hadham and through the village to Bishop's Stortford is very straight, following the line of Stane Street; a Roman road. There is, however, a kink in the road in the centre of Little Hadham, where there is a staggered crossroads where the A120 is met by Albury Road to the north (serving a number of villages) and an unnamed road to Much Hadham to the south. Due to the s-shaped road alignment at the crossroads and the narrow width of the A120 in this location – resulting in a pinch-point – the junction is signal controlled with traffic lights. The A120 accordingly experiences severe congestion at the traffic lights. The lights have been historically upgraded, but there is no ability to continue to do this. At present the lights operate on a five minute cycle. Due to the s-shaped configuration of the A120, the staggered crossroads and the presence

of listed buildings right on the junction, road improvements are unable to be made as a means of alleviating the congestion.

- 3.3 It is therefore proposed to construct a bypass to the north of Little Hadham. This would measure approximately 3.9km in length and would link with the existing A120 at two new roundabouts to the east and west of the village. The proposed works would encompass an area of approximately 40.5 hectares. The typical carriageway width would be 9.3 metres, excluding verges, which will consist of two 3.65 metre lanes. In the centre of the scheme, however, there will be a one kilometre long eastbound climbing lane. Apart from at the two new roundabouts, there would be no other lighting associated with the proposed development. The existing Albury Road would cross over the proposed bypass by way of a new bridge.
- 3.4 In addition, three rivers and/or watercourses go through Little Hadham. The River Ash travels in a north-east to south-west direction through the village, flowing under the A120 just to the east of the traffic lights. The Albury Tributary flows south-easterly into the village, joining the Ash just north of the A120. In addition, the Lloyd Taylor Drain flows in an easterly direction to the south of the A120, joining the River Ash to the south of the traffic lights. All of these are prone to flooding, and there have been a total of six extensive floods since 1947, with particularly severe flooding taking place in 2001. The most recent flooding occurred in February 2014. In total, 72 properties in Little Hadham have a 1 in 100 or greater annual probability of river flooding. Consequently, built into the development will be a flood alleviation scheme, thus significantly reducing flood risk for the majority of these properties.

Description of the development

- 3.5 The proposed bypass will form a sweeping arc to the north of the village of Little Hadham, with the northern part of the village sitting between the bypass and the existing A120. Similarly, the bypass will travel to the north of the hamlet of Church End as well as the developments at Hadham Hall and Hadham Park. These will also be enclosed between the existing A120 and the bypass. The overall consequence of this is that the primary road network will move away from Little Hadham, also taking it further away from the settlements that are located to the south of the existing A120 such as Hadham Ford, Green Street, Bury Green and Cradle End.
- 3.6 However, the bypass and its associated works will ultimately travel through what is, at present, predominantly agricultural land in a rural setting. It will also result in development that encroaches on the parish of Albury to the north of Little Hadham, with the bypass being located much closer to the villages and settlements to the north than presently exists with the A120. The settlements most affected will be Albury End,

Albury Lodge and Upwick Green, with Albury and Clapgate located just beyond these.

- 3.7 Taking each section of the development in turn, from west to east, the bypass will commence at the new Tilekiln roundabout approximately 650 metres to the west of the signalised traffic junction in Little Hadham. The new roundabout will be located adjacent to an existing detached residential property known as The Lodge. When travelling east from Standon, there will be a dedicated left-hand feeder lane constructed within the roundabout thus removing the need to enter the bypass in this location. During the construction phase, the roundabout will mainly be built off-line so as to minimise the disruption to the existing A120. This section of the bypass descends from west to east, with most of it running through two cuttings with depths of over 2.5 metres and over 3.5 metres respectively, thus reducing the visual impact. A brief section in the centre runs on a very low raised section, approximately 500mm above existing ground levels, although an environmental bund will be provided in this location to mitigate the noise and visual impacts of the road. An existing footpath will be affected and will be permanently diverted to the west of the roundabout, although this does not materially affect the operation of the footpath. In fact, it allows a link with an existing footpath that runs to the south of the A120 in this location, with an uncontrolled pedestrian crossing over the existing A120 linking the two.
- 3.8 After approximately 500 metres, the bypass emerges from the second cutting and reaches the Albury Tributary at the confluence of two watercourses and its shallow valley. As the road crosses the tributary, a high embankment is provided, being over 5 metres above original ground levels. The embankment has been designed to provide a flood storage area upstream during instances of likely flooding, with a culvert orifice in the embankment being designed to restrict flow during storms. Two public footpaths will be diverted so that they cross the bypass at grade by way of an uncontrolled pedestrian crossing, although an alternative route will also be available beneath the embankment utilising the proposed spillway. The latter route would prevent the need to cross the road on foot in this location. Drainage basins are also proposed at the location of the embankment, and a two metre high noise barrier is proposed on the embankment to reduce noise impacts from the road.
- 3.9 After crossing the valley of the Albury Tributary, the bypass will travel north eastwards towards Albury Road, which is the road that travels north from the signalised junction in Little Hadham and which serves the villages to the north. The stretch of bypass just to the east of Albury Road, is within a cutting up to 5 metres below existing ground levels. However, Albury Road itself will be slightly realigned and raised, with a new bridge being provided to take this over the proposed bypass.

- 3.10 After approximately 1.25km of the bypass's route from its western end, it emerges into the valley of the River Ash. To necessitate the movement of the road across the valley, as well as to provide the second element of the flood alleviation scheme, a further embankment is provided up to 10 metres above existing ground levels. The embankment provides sufficient height to retain the volumes of water associated with a probable maximum flood event, with a constriction of the flow of the River Ash through the embankment. The embankment will continue for a total length of approximately 560 metres and, just to the east of the River Ash, the road will begin to ascend, climbing up the eastern valley side. At the point to the east of the river will be the commencement of the eastbound climbing lane.
- 3.11 The next stretch of the bypass moves into deep a cutting up to 7.5 metres below existing ground levels, with the gradient being steep and justifying the climbing lane. A new bridge will be provided to the east of the Mill Mound scheduled monument to provide agricultural access and to enable the crossing of the bypass by an existing bridleway (which also forms part of the Hertfordshire Way). Moving further east from here, the bypass is close to existing ground levels or, in stretches, is slightly raised. Where this occurs, environmental bunds are proposed to reduce the noise impacts of the scheme on Hadham Hall to the south, reaching a maximum height of 4.5 metres. Also along this stretch, the bypass crosses the Cradle End Brook, with the need for this to be culverted. However, this does not form part of the flood alleviation scheme.
- 3.12 Further east, the original scheme proposed the construction of a further bridge to cross the bypass to provide agricultural access as well as to accommodate a further bridleway. This has since been redesigned, predominantly for ecological reasons, which will be explained in greater detail within this report. The redesigned scheme now provides an underpass in this general location, serving the same purposes as the previously proposed bridge.
- 3.13 The final portion of the bypass runs close to a large residential property, known as Savernake, to its west, before joining with the existing A120 at the proposed Hadham Park roundabout. The road is close to existing ground levels on this final part. An existing footpath will be diverted here to allow it to cross the bypass at the roundabout, utilising a traffic island.
- 3.14 In addition to the bypass itself, works will also be carried out to the Lloyd Taylor Drain that is located to the west of Little Hadham. This watercourse will be diverted to the west of the village around the residential properties of Lloyd Taylor Close and The Smithy. It would operate by diverting flood flows away from an existing undersized culvert beneath the properties off Spindle Hill, taking them instead into the River Ash below The Ash settlement. A new oversized culvert will

also be constructed under Albury Road to allow the flood waters to pass without issue.

- 3.15 Finally, minor works are proposed at a detached site at Upwick Road, approximately 1.5km north of Little Hadham, to raise the level of the road in that location. This runs close to the River Ash in that location and the works would reduce the risk of it flooding.

Planning history

- 3.16 There is no planning history considered relevant to this planning application.

4. Consultations

4.1 East Herts District Council – Planning

Original consultation response

Supports the proposal, but requests that further action be taken to bring forward mitigation measures in the local area and beyond.

Further consultation response

No additional comments to make.

The full consultation responses are attached at Appendix A.

4.2 Little Hadham Parish Council

Original consultation response

Supports the application but with requests for the county council to consider:

- The provision of an access off the bypass with Albury Road, preventing the need for traffic to travel through Little Hadham when accessing the villages to the north.
- A revision of the Lloyd Taylor Drain to include a previously designed attenuation pond to prevent excessive water from entering the channel.
- The imposition of a time limit for noise reduction measures.
- The imposition of time limits regarding the installation of traffic calming in Little Hadham.

Further consultation response

Considers that the alterations to the eastern end of the bypass would improve the visual impact of the development, and supports the measures taken to protect the important wildlife of the area.

The full consultation responses are attached at Appendix A.

4.3 Albury Parish Council

Original consultation response

Objects to the development on the basis that:

- The impact of the development on Albury is extensive without any benefits.
- Although regard has been made to the NPPF and the beneficial impacts on Little Hadham, a similar appraisal of the negative impacts on Albury has not been made.
- Proposals to mitigate against noise, and the negative impact on the landscape and environment of the Parish of Albury should be reassessed.
- Incorrect statements should be noted and rectified.
- It is vital that the parish council understands what the impacts of the proposal on flood risk are.

Further consultation response

Welcomes the introduction of an underpass on ecological grounds. However, is of the opinion that previous concerns regarding the environmental and visual impacts on the parish of Albury have not been addressed and, with the introduction of the deer fencing to the top of embankments, the visual impact will be worse.

The full consultation responses are attached at Appendix A.

4.4 Environment Agency

Original consultation response

No objection, but the development will only be acceptable if a number of suggested planning conditions are attached to any grant of planning permission.

Further consultation response

No objection, but a change to the suggested condition regarding lighting, plus the provision of a further condition to take account of the presence of Great Crested Newts.

The full consultation responses are attached at Appendix A.

4.5 Hertfordshire County Council - Highways

Original consultation response

Does not wish to restrict the grant of planning permission, subject to the imposition of a number of conditions.

Further consultation response

None received.

The full consultation responses are attached at Appendix A.

4.6 Highways England

Original consultation response

Offers no objection.

Further consultation response

Offers no objection.

4.7 Natural England

Original consultation response

No objection and no conditions requested.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.8 Hertfordshire County Council – Ecology

Does not consider that there are any outstanding ecological issues that would in principle prevent this proposal from being determined, subject to satisfactory amendments.

The full consultation responses are attached at Appendix A.

4.9 Herts & Middlesex Wildlife Trust

Original consultation response

Objects on the following basis:

- More survey information required to properly quantify impacts on barbastelle population
- Mitigation required based on the survey appropriate to the level of impact, e.g. lighting, habitat creation, flight line crossing points etc.
- Monitoring regime required

- Habitat enhancement fund required to create net gains in barbastelle population
- Definition needed on all other habitat creation aspects of the scheme

Further consultation response

Whilst happy with the survey work carried out in relation to Barbastelle bats, still has concerns about a number of issues, including mitigation measures for ecology.

The full consultation responses are attached at Appendix A.

4.10 Hertfordshire and Middlesex Bat Group

Original consultation response

Objects due to insufficient information in respect of survey, impacts and mitigation to enable an evaluation to be made of the likely effects on the important bat populations in the area.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.11 CPRE Hertfordshire

Original consultation response

Raises concerns regarding the impact of the development on the highway network once the scheme is operational, requesting that consideration be given to the imposition of conditions and Highways Agreements provisions to ensure that appropriate mitigation measures are implemented, especially within Standon.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.12 Hertfordshire Gardens Trust

Original consultation response

Objects, as the proposed Hadham Park Bridge would cause significant damage to the view from Hadham Hall and the significance of the site.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.13 Historic England

Original consultation response

Comments that there is likely to be some harm to the significance of a number of heritage assets but it is up to the Council to weight this harm against the public benefits of the proposal in line with paragraph 134 of the NPPF as part of the decision-making process. Any harm requires clear and convincing justification in line with paragraph 132 of the NPPF. Mitigation should also be appropriate to the level of harm experienced.

Further consultation response

No further comments to add to the original response.

The full consultation responses are attached at Appendix A.

4.14 Hertfordshire County Council – Historic Environment

Original consultation response

Does not object, subject to the imposition of conditions requiring and Archaeological Scheme of Investigation to be submitted and approved, with construction works taking place in accordance with this and with adequate safeguards in place to record any findings.

Further consultation response

Advice remains largely unchanged, but acknowledges that trial trenching has taken place. Therefore, recommendation to continue with further site investigations, with the imposition of the conditions originally proposed.

The full consultation responses are attached at Appendix A.

4.15 Hertfordshire County Council – Flood Risk Management

Original consultation response

Recommends that planning permission can be granted subject to a number of conditions.

Further consultation response

Note that the amended scheme does not affect the proposed drainage strategy and flood risk assessment with exception to the changes to boundary. Therefore the original position is maintained.

The full consultation responses are attached at Appendix A.

4.16 Hertfordshire County Council – Landscape

Original consultation response

The proposed development results in permanent significant adverse landscape and visual effects and is therefore not supported in principle. However in the event that, on balance of all planning considerations, the proposal is approved, then it is considered that the proposed landscape mitigation strategy is the most effective it can be within the constraints of the tight site boundary, and large areas of flood banks that cannot be planted.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.17 Hertfordshire County Council – Rights of Way Service

Original consultation response

Does not object as the Rights of Way Service has had input into the relevant sections of the planning process over the course of some years and is generally happy with the outcome of this, so don't have any comments to make at this stage.

Further consultation response

None received.

4.18 Ramblers Footpath Secretary – Bishop's Stortford

Original consultation response

Makes comments and suggestions about how the public rights of way could be better linked or made safer.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.19 Affinity Water

Original consultation response

Does not object, but states that construction works may exacerbate the risk of pollution. If any pollution is found at the sites then the appropriate monitoring and remediation methods will need to be undertaken.

Further consultation response

No further response received.

The full consultation responses are attached at Appendix A.

4.20 Third Party Comments

The application was advertised in the press and a total of 303 letters were sent to residents and other premises in the surrounding area. Site notices were erected on 1 December 2015.

Further to the submission of the addendums, the application was again advertised in the press and further letters were sent to the 303 residents and other premises. Further site notices were erected on 18 October 2016.

Original consultation responses

42 responses were received in respect of the original consultation. Of these, 22 were in support of the proposed development; and 20 objected and/or raised concerns about the proposal. These responses can be summarised as follows:

In support

- The proposal would alleviate current traffic problems in Little Hadham.
- The bypass is long overdue.
- A bypass is desperately needed.
- The present commute through Little Hadham is awful and tiresome.
- The development would resolve the issues of cars trying to join the existing main road from dangerous junctions.
- The proposal would resolve the issues of cars pulling out onto the existing A120 from houses and the local primary school.
- It would solve the dangers of people trying to jump the Little Hadham traffic lights, with pedestrian safety presently being compromised by such actions.
- Vehicles speed through the village to try to beat the traffic lights.

- Children crossing the existing road are subject to near-misses from traffic.
- The proposed development will have an improvement in pedestrian and cycle safety.
- The bypass will reduce rat-running through the village.
- Some motorists have little regard for the residents of Little Hadham.
- The volume of traffic through the village has disturbed sleep.
- The quality of life of residents will improve.
- Health concerns arising from fumes from vehicles waiting at the traffic lights would be improved.
- Dirt and grime from traffic going through the village results in expensive upkeep of properties, including listed buildings.
- The proposed development would resolve the flooding of homes in Little Hadham.
- Flooding has resulted in residents being unable to leave the village.
- Flooding has resulted in excessive damage to properties in Little Hadham.
- Houses are presently unable to have insurance cover due to historic flooding.
- The Lloyd Taylor Drain regularly results in flooding. The proposed works will solve this.
- The proposed bypass respects the countryside.
- The proposed development is not ideal but offers the best solution.

In objection

- The initial public consultation process, which looked at a number of proposed routes for the bypass, was flawed.
- Other routes that were initially proposed are preferable to this route.
- Previous public consultation on routes has been ignored.
- The development consists of the wrong road in the wrong place.
- The proposed bypass fails to comply with Local Transport Plan policies.
- Due to its alignment close to Little Hadham, it is not a proper bypass.
- It is not a village bypass, but a bypass around the traffic lights.
- A better solution would be to remove the traffic lights in Little Hadham and to install a new traffic system.
- Double mini-roundabouts have previously been proposed for the centre of Little Hadham, but this has not been explored further.
- Relocation of a couple of houses in the centre of Little Hadham would be preferable.
- Residents of Little Hadham were fully aware of the traffic issues when they bought their houses.
- When the Little Hadham traffic lights have failed, traffic has moved freely without congestion during the rush hour.
- A more strategic approach is needed, building a proper dual-carriageway road between the M11 and A10, and ultimately onwards to the A1 and M1.

- Future strategic routing would render the Little Hadham bypass as unnecessary.
- The proposal does not consider a bypass at Standon.
- The development is out of time as traffic studies were carried out in 2006.
- The proposal is just a short-term solution.
- The initial stated aim of the bypass to reduce journey times has been watered down.
- The scheme provides no additional capacity beyond existing requirements.
- An increase of roundabouts on the route of the A120 will increase congestion.
- The proposed road would result in queues of traffic being moved to the east (Bishops Stortford) and west (Standon).
- There is concern that Little Hadham residents will experience congestion when trying to gain access to the bypass at its eastern and western ends.
- The proposal falls short of addressing traffic needs, and does not take into consideration future housing developments at Bishops Stortford.
- The proposal does not consider the proposed expansion of Stanstead Airport.
- There is already congestion at junction 8 of the M11, and this will worsen the situation.
- The present irritating sequence on the traffic lights at Little Hadham will continue.
- The ability to access the bypass at Albury Road is essential for Little Hadham residents.
- The lack of a slip road off Albury Road means that HGVs and farm traffic will still go along Albury Road when accessing the villages to the north of the bypass, continuing the present noise and disturbance.
- The proposed Tilekiln roundabout will adversely affect the entrance to Tilekiln Farm.
- The slip road on the bypass coming away from the Tilekiln roundabout is not required.
- The design of the proposed Tilekiln roundabout may impact upon highway safety.
- At present, the speed restrictions in Little Hadham limit accidents and animal strikes. Moving the road to the open countryside will increase the likelihood of animal strikes.
- The bypass should link directly with the Tesco roundabout at Bishops Stortford.
- The Lloyd Taylor Drain is the worst contributor to flooding in the village. The works to this could have been carried out without the bypass.
- The proposed flood alleviation scheme could be implemented independently of the bypass at a fraction of the cost.

- It is immoral to suggest that the flood alleviation scheme is dependent on the construction of the bypass.
- The Albury Road floods south of Clapgate. Backing up the River Ash through the proposed flood alleviation scheme will worsen this. Albury Road needs to be raised/protected.
- Dredging the River Ash is a preferable solution to flooding.
- Originally proposed water-holding reservoirs have been omitted from present proposal. These would have been more effective.
- The bypass will increase air, noise and light pollution to residents of Albury Road.
- The contours of the Ash Valley will funnel noise. A sound barrier is needed to the north of the proposed dam.
- Views from Upwick towards the bypass should be protected through the deepening of the cutting.
- Planting and earth embankments should be sufficient to provide the necessary visual screening.
- The road will adversely affect the setting of the Mill Mound ancient monument.
- The northern aspect of the dam will be visible from Patmore Heath, which is a SSSI. This needs to be protected through additional planting.
- The road will have an adverse impact on the Grade I St Cecilia's Church.
- Properties in Upwick Green, Albury End, Clapgate, Patmore Heath and Gravesend will all look towards the road, with the road being audible from these, especially with the bypass being 7.8 metres above existing ground levels.
- Hadham Hall (Grade II*) will be affected by the proposed bypass.
- The development will undermine the viability of Grade 2 agricultural land.
- There is a threat that infill development will take place on land between Albury Road and the proposed bypass.
- The road will carve a gash in a ridge created 20,000 years ago when the ice sheet retreated.
- The bypass will despoil beautiful countryside, including a historic site.
- The new road will lead to a loss of footpaths and countryside access.
- The development will ruin the countryside and Green Belt.
- The proposed bypass will adversely impact upon wildlife corridors.
- Nightingales nest on the proposed route of the new road.
- The proposal will result in a loss of flora and fauna.
- Historic oak trees will be lost along the route.
- The proposed development represents a waste of money.
- Money that will be spent on the project could be spent on other vital services in the county.

Further consultation responses

Upon the further consultation, three responses were received, all in objection to the development. These came from parties that had already objected when the first consultation exercise was carried out.

- Heartening that the underpass will be provided for the benefit of ecology, reducing the visual impact, but the same consideration has not been given to the embankments and their visual impact and impact on ecology.
- The embankment over the River Ash will result in the road being visible and audible from Upwick Green, Albury End, Clapgate, Patmore Heath and Gravesend, and will adversely affect walkers and cyclists attracted to the area for its unspoilt beauty.
- The SSSI at Patmore Heath falls within the 2km buffer zone.
- Whilst bunds have been added to the southern side of the road, no such bunds/landscaping have been introduced to the northern aspect of the bypass.
- In respect of the Hadham Park underpass, the only way in which the landowner can access his land is via this and he has the following concerns:
 - The underpass measures 6 metres wide (including two verges of 0.5 metres wide) by 5 metres in height. This will not allow all of his agricultural machinery to travel through the underpass without the need for it to be dismantled.
 - There is concern that the dual use as a bridleway gives danger as it is orientated in an east-west direction. Underpass users may therefore be dazzled by the sun, which could cause collisions.
 - A concrete road is required under the underpass due to the existing softness of this part of the land.
- The landowner has also raised concerns about the intended ecological planting to the south of the A120 as discussions with the Wildlife Trust indicate that the present arrangements of how that field is managed are beneficial for wildlife.

5. Planning Policy

- 5.1 Section 70(2) of the Town and Country Planning Act 1990 (as amended) and Section 38(6) of the Planning and Compulsory Purchase Act 2004 (as amended) require that planning applications be determined in accordance with the development plan unless material considerations indicate otherwise.
- 5.2 In the national context, the National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied.

National Planning Policy Framework 2012 (NPPF)

- 5.3 The NPPF was released in March 2012. The NPPF contains the presumption in favour of sustainable development. The document also promotes the development plan as the starting point for decision making and that decisions should be made in accordance with an up to date Local Plan unless material considerations indicate otherwise.
- 5.4 The NPPF refers to three dimensions of sustainable development; economic, social and environmental and the purpose of the planning system being to contribute to the achievement of sustainable development. In order to achieve sustainable development economic, social and environmental gains should be sought jointly and simultaneously through the planning system. Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life and improving the conditions in which people live, work, travel and take leisure.
- 5.5 The NPPF also seeks to protect Green Belt land stating that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics being their openness and their permanence. Green Belt purposes include checking the unrestricted sprawl of large built-up areas; preventing neighbouring towns merging into one another; assisting in safeguarding the countryside from encroachment; preserving the setting and special character of historic towns; and to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 5.6 Inappropriate development in the Green Belt is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Local Planning Authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

The Development Plan

- 5.7 The development plan consists of the East Herts Local Plan Second Review (April 2007) and its associated Supplementary Planning Documents (SPDs).
- 5.8 The most relevant planning policies to consider for this application are:
 - Policy GBC1 Appropriate Development in the Green Belt
 - Policy GBC2 The Rural Area Beyond the Green Belt
 - Policy GBC3 Appropriate Development in the Rural Area Beyond the Green Belt
 - Policy GBC14 Landscape Character

Policy TR3	Transport Assessment
Policy TR17	Traffic Calming
Policy ENV1	Design and Environmental Quality
Policy ENV2	Landscaping
Policy ENV11	Protection of Existing Hedgerows and Trees
Policy ENV13	Development and SSSIs
Policy ENV14	Local Sites
Policy ENV16	Protected Species
Policy ENV17	Wildlife Habitats
Policy ENV18	Water Environment
Policy ENV19	Development in Areas Liable to Flood
Policy ENV20	Groundwater Protection
Policy ENV21	Surface Water Drainage
Policy ENV23	Light Pollution and Floodlighting
Policy ENV24	Noise Generating Development
Policy ENV25	Noise Sensitive Development
Policy ENV27	Air Quality
Policy BH1	Archaeology and New Development
Policy BH6	New Developments in Conservation Areas

- 5.9 The emerging East Herts Local Plan is at the preferred options stage, and has been the subject of a public consultation exercise. At the moment, however, it only carries limited weight. Nevertheless, Policy DPS5 of the emerging plan identifies the A120 Bypass as a road improvement.
- 5.10 From a transport planning perspective, the Hertfordshire County Council Local Transport Plan (2011-2031) sets out the county council's vision and strategy for the long term development of transport within the county.
- 5.11 In addition, the Eastern Herts Transport Plan (2007) covers the settlements of Bishop's Stortford and Sawbridgeworth, and also includes the surrounding rural area approximately bounded by the A10 in the west, the A120 to the north, and the county boundary to the south and east.

6. Planning Issues

- 6.1 The principal planning issues to be taken into account in determining this application can be summarised as:
- Need and justification of the bypass
 - Congestion relief and the impact of the bypass on other roads
 - Need and justification of the flood alleviation measures
 - Green Belt development
 - Development in the Rural Area beyond the Green Belt
 - Landscape and visual impact
 - Impact on residential and non-residential amenity
 - Impact on historic environment

- Impact on the network of rights of way
- Impact on ecology and biodiversity

The need and justification for a bypass

- 6.2 The NPPF supports sustainable development by encouraging local planning authorities to:
- support development that facilitates the use of sustainable modes of transport, including the potential to locate developments where the need to travel will be minimised;
 - develop strategies for the provision of viable transport infrastructure to support sustainable development;
 - identify and protect sites and routes which could be critical in developing infrastructure to widen transport choice.
- 6.3 The NPPF sets out that planning authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development, including “transport investment necessary to support strategies for the growth of ports, airports or other major generators of travel demand in their areas.”
- 6.4 With this in mind, London Stanstead Airport is located just 10 kilometres to the east of the proposed bypass. In fact, the A120 is identified in the airport’s Sustainable Development Plan as being a major point of access. London Stanstead has planning permission to expand, thus increasing the number of passengers from 20 million to 35 million per annum, with it anticipated that this higher figure will be reached in the next 10 years. Furthermore, future capacity will exist to allow further increases up to approximately 40 to 45 million passengers per year.
- 6.5 The physical need for the proposed bypass at Little Hadham has also been identified for some time through a range of policy documents.
- 6.6 Planning permission exists for an additional 2,200 homes in Bishop’s Stortford, and, as explained, it is also proposed to increase the capacity of London Stanstead Airport; which itself has a projection that 10,000 new jobs will be created. The Government’s Transport White Paper (Creating Growth, Cutting Carbon Making Sustainable Transport Happen) 2011 provides key objectives for future transport investment. These are, primarily, the aim to create growth in the economy, and the aim to tackle climate change by cutting carbon emissions. The paper also seeks to tackle places where congestion results in slow and unreliable journeys which impact significantly on the economy and the environment.
- 6.7 Hertfordshire’s Local Transport Plan covers the years 2011 to 2031. Identified as a major scheme within the Plan is the proposed Little

Hadham bypass and flood alleviation scheme. The Plan sets out five principal goals. These are to ensure that transport schemes:

- Support economic development and planned dwelling growth.
- Improve transport opportunities for all and achieve behavioural change in mode choice.
- Enhance quality of life, health and the natural, built, historic environment for all Hertfordshire residents.
- Improve the safety and security of residents and other road users.
- Reduce transport's contribution to greenhouse gas emissions and improve its resilience.

- 6.8 The applicants are of the view that the proposed bypass accords with all of these objectives; especially where it is anticipated that the bypass will support economic development and planned dwelling growth through the provision of additional capacity on the A120; and in terms of the enhancement of the quality of life, health and the natural and built historic environments through the removal of traffic congestion from the centre of Little Hadham. To a lesser degree, the applicants also believe that the bypassing of Little Hadham will remove traffic from Little Hadham, improving the safety of residents and other road users and, through the removal of the bottle neck at the staggered crossroads, will reduce greenhouse gas emissions.
- 6.9 Hertfordshire County Council, in its role as local transport authority, is responsible for producing spatial transport strategies. One of these is the Inter-Urban Route Strategy, which aims, amongst other things, to provide a strategy for each route and a county-wide strategy, identifying potential contenders for Major Projects. Corridor 8 of the Strategy focuses on the A120, which is identified as carrying a mix of local and strategic traffic as it is the main link to Stanstead Airport and the M11. The Strategy refers to the existing bottleneck at Little Hadham and the plan to address this through the provision of a bypass, which is a major aspiration of the Local Transport Plan.
- 6.10 In addition, the Transport Economic Evidence Study published in September 2008 recognised that the section of the A120 to the east is close to capacity. The study stated that “the removal of transport constraints (congestion) would...deliver significant economic benefits to the region.”
- 6.11 In further support for a bypass, the scheme was identified within the Local Transport Body Shortlist in 2013. Local Transport Bodies (LTBs) are the result of the Government devolving the funding of major transport schemes. LTBs are voluntary partnerships between local authorities, LEPs and other organisations. The proposed bypass was identified as being within the top three for deliverability and achievability of Local Transport Plan goals within Hertfordshire. Similarly, the LEP Strategic Economic Plan that was published in March 2014 named the

A120 bypass as being one of the 2015/16 Implementation Priorities for the M11/A10 package, being a scheme that was considered as being able to ease congestion within the area.

- 6.12 Furthermore, the Hertfordshire Infrastructure and Investment Strategy, published in November 2009, considered the locations of where investment in transport infrastructure should go between the years 2011 to 2031. This identified that east to west journeys were not as well catered for as existing north to south routes. The A120 was therefore identified within the strategy as being in need of a bypass to alleviate capacity issues and to assist with future forecast growth.
- 6.13 In further support for a bypass, the Highways and Transport Panel at Hertfordshire County Council had, in 2006, endorsed the continued Primary Route function of the A120 and the need for improvements in the form of local bypasses, including the provision of single-carriageway local bypasses for the villages of Little Hadham and Standon. As background to this, the Highways Authority had considered a number of options in which the congestion at Little Hadham could be alleviated. These options included the bypassing of Little Hadham on its own, bypassing both Little Hadham and Standon (through the provision of both single and dual carriageway roads), and the provision of more strategic east-west routes from the A10 to the M11. The original preference was for a bypass to both villages of Little Hadham and Standon as, firstly, the existing A120 at Standon has a poor accident record and, secondly, bypassing both villages was seen as providing greater benefits to the operation of the A120 as well as the environment of both villages. However, bypassing both villages scored low in terms of funding and deliverability. Similarly, the strategic east-west proposals scored low due to concerns about the effectiveness of these schemes on traffic movement through Little Hadham, as well as movement along the A120 in general.
- 6.14 The proposed bypass to Little Hadham was subsequently brought forward as it offered the opportunity to reduce accidents between Little Hadham and Standon, whilst also providing a good quality link between the A10 to the west and the M11 to the east. However, the applicants stress that this is a staged approach with the bypass to Standon anticipated to be delivered in the future. This accords with the Local Transport Plan, which identifies the Little Hadham bypass as the first stage with other phases being prioritised against other projects in the county as part of the Local Transport Plan processes.
- 6.15 When the Highways Authority originally carried out public consultation on a number of proposed routes back in 2007, Option 5 was seen to be the preference of the public with 65% of respondents saying that it was acceptable. Option 5 was also the least unacceptable option with 32% of respondents identifying it as being unacceptable. This was also considered by the Highways Authority to be the best performing route, although it did attract opposition from residents of Albury End due to

the anticipated visual impact of the bypass along its western stretch, as well as opposition from landowners to the north of the bypass who considered the scheme would adversely sever agricultural land in that location. Subsequently, in 2008 further modelling was carried out, resulting in Option 5B, which is the route of the proposed bypass that is the subject of this application. The western-most tie-in of the bypass with the existing road has been moved some 650 metres east and closer to Little Hadham, with the bypass re-joining the originally proposed route just west of where it crosses Albury Road. This is considered to reduce the impact on residential properties at Albury End, namely Tilekiln Farm, Albury and Poplar Hall Cottage as the road has been moved significantly away from these. The proposed bypass is also located on lower ground in this area than originally proposed, further alleviating the visual impact of the development. Option 5 originally resulted in the proposed bypass meeting directly with the Tesco roundabout at Bishop's Stortford, but this has also changed with a new roundabout proposed to the west of the existing roundabout. This takes the bypass away from Hadham Lodge, although it does bring it closer to residential properties at Savernake and Plantings Cottage. In addition, this realignment decreases the amount of land take, resulting in less agricultural severance.

Congestion relief and the impact of the bypass on other roads

- 6.16 In order to determine existing conditions on the A120 and the roads in the vicinity, turning counts and queue lengths were undertaken at a number of minor junctions along this stretch of the road in March 2014. A further turning count was carried out at the junction of the A120 with Albury End in June 2014. Further turning counts were also available for the more major junctions, such as where the A120 meets the A10, the A1184 (at the Tesco roundabout in Bishop's Stortford), and Albury Road, together with where the A1184 running to the south of the Tesco roundabout meets the B1004, the B1383, and Obrey Way. These latter counts range from June 2008 through to March 2015, although the historic ones have been brought up to 2014 levels through the input of growth factors. In addition, a Permanent Automatic Traffic Counter is located to the east of Little Hadham.
- 6.17 For the purposes of the study, the assessment hours were set as being the weekday morning and evening peak hours, namely 8am to 9am, and 5pm to 6pm. The study identified that the traffic lights at Little Hadham act as a major constraint, with queues extending beyond 200 metres during peak hours. Even during off peaks, the length of the signal cycle at the junction of up to five minutes results in significant delays.
- 6.18 The study further identified that the other junctions on the existing A120 between the A10 and the A1184 generally operate reasonably well with limited queuing or delays, although queues can occasionally build on

local roads within Standon as cars attempt to make right hand turns on to the main road. This is due to the volume of traffic on the A120.

- 6.19 In forecasting the impact of the bypass on the local road network, the traffic has been modelled on anticipated flows in 2019 (the anticipated opening year of the bypass) and 2024 (five years post-opening). The modelling includes estimates of traffic based on future growth, including already committed developments and allocations for development set out in relevant Local Plans. Traffic flows have accordingly been estimated on an existing road layout scenario (in other words, without the provision of a bypass) as well as in respect of the situation once the bypass is operational. This latter scenario also includes changes to the phasing of the signals within Little Hadham once traffic volumes have reduced within the village, thus allowing better operation of the A120 within the village itself.
- 6.20 The analysis shows that, when first opened, the bypass will increase the traffic on the A120, being a more attractive east-west route within the county than at present. In the morning peak hour there will be between a 9% and 82% increase in traffic, depending on which stretch of the A120 is examined, and increases of between 12% and 92% during the evening peak. The largest increases are anticipated on the stretch between Standon High Street and the proposed new Tilekiln roundabout (at the western tie-in of the bypass). Through Standon itself, traffic is expected to increase by between 15% and 18% in the morning peak, and between 21% and 26% during the evening peak. Significant increases are also expected to occur at Horse Cross and at Albury Road south of the signalised junction in Little Hadham (623% and 131% in the morning respectively; and 475% and 135% in the evening). However, this is, in part, due to the relatively low baseline of the existing traffic flows on these roads.
- 6.21 Traffic flows within Little Hadham itself are, as expected, likely to be significantly lower after the bypass has been constructed, with an estimated 74% decrease in the morning peak and a 68% decrease in the evening peak. There are also significant anticipated decreases in traffic flow on Albury Road north of the traffic lights (25% AM, 29% PM), Standon High Street (44% AM, 39% PM), Cradle End (95% in both the AM and PM), and Albury End (2% AM, 41% PM).
- 6.22 In respect of the junction analysis, this was carried out with reference to the seven roundabouts, seven priority junctions and the one signalised junction on the broad network in the vicinity of the proposed bypass. This was further informed by a survey of queue lengths. With the exception of the signalised junction in Little Hadham, all junctions were found to be operating within their theoretical capacity threshold, although the A10/A120 junction at the western end of the A120 was found to be at its capacity threshold during the course of the evening peak hour. The signalised junction was found to be operating above its

theoretical capacity threshold, with significant queueing of vehicles taking place on the eastern and western arms of the A120.

Junction analysis – 2019 without a bypass

- 6.23 Modelling has been carried out based on predicted 2019 traffic volumes where a bypass has not been provided. It has been concluded that growth in volumes will result in the A10/A120 junction operating above capacity during the PM peak as a result of congestion on the A10 (South) approach. Furthermore, the A120/Albury Road junction in the centre of Little Hadham is estimated to operate at a similar level to 2014, except that on the Albury Road approach there will be a significant worsening of congestion in the PM peak hour when compared to 2014. The roundabout where the A120 meets the A1184 (at Tesco in Bishop's Stortford) is also predicted to operate above capacity in the PM peak hour in 2019, with the growth in traffic resulting in the Hadham Road approach out of Bishop's Stortford operating above its capacity during this period.

Junction analysis – 2019 with the provision of a bypass

- 6.24 Forecasts for 2019 that are based on the provision of the bypass to Little Hadham show significant benefits to the A120/Albury Road signalised junction in the village. The transfer of traffic on to the bypass would mean that this junction operates within its theoretical capacity threshold during both the AM and PM peaks. However, the modelling shows that there will be significant knock-on effects from providing the bypass. For instance, at the A10/A120 roundabout it is forecast that this will operate within capacity in the morning, but that the bypass will substantially worsen the congestion problems on the A10 (South) approach during the PM peak as the junction will be operating above capacity during this period. Within the village of Standon, the junction of the A120 and Cambridge Road is likely to operate above its capacity during both the AM and PM peaks, with maximum delays of over 5 minutes in the AM and almost 7 minutes in the PM. These delays would occur on Cambridge Road itself as a result of increased traffic flows on the A120 preventing those wishing to turn right out of Cambridge Road from joining the main road. This would not, however, result in long queues on Cambridge Road, as traffic volumes are light on this road. Similarly, the junction of the A120 with Station Road in Standon will result in delays of in the region of 5 minutes in the AM peak and 2 minutes in the PM, for the same reasons as with Cambridge Road. To the east of Little Hadham, the A120/A1184 roundabout is likely to also operate above its capacity in both the AM and PM peaks, with the approach from both sides of the A120 (North and West) and Hadham Road experiencing capacity issues.

Junction analysis – 2024 without a bypass

- 6.25 Based on 2024 traffic volumes where a bypass has not been provided, modelling shows that the A10/A120 junction is likely to be operating above its capacity during both the AM and PM peaks, worsening the capacity issues on the A10 (South) arm as one approaches the roundabout. Within Standon, the A120/Cambridge Road junction would, however, be operating within capacity, although the A120/Station Road junction would be above capacity in the AM peak hour with delays of approximately 3 minutes. At Little Hadham, the A120/Albury Road signalised junction would be even more congested than the 2019 model shows, with much longer queues likely to be experienced. At the A120 junction with Cradle End, the junction would be marginally above capacity in the AM peak due to cars turning right out of this minor turning. In addition, the A120/A1184 junction at Tesco would be above capacity in the AM and PM peak hours, primarily due to issues on the Hadham Road approach, representing a worsening of the 2019 position.

Junction analysis – 2024 with the provision of a bypass

- 6.26 Modelling of the different scenarios based on 2024 traffic volumes and the provision of a bypass indicates that the A10/A120 roundabout would operate above capacity during both the AM and PM peaks hours. In the morning, this would be similar to the 2024 baseline scenario where a bypass had not been provided, although the A10 (North) approach is now likely to be slightly above theoretical capacity. In the PM, the A10 (South) approach – which was over capacity in the 2024 baseline study without a bypass – is worsened as a result of traffic being attracted to use the bypass, with predictions of queues of over 100 vehicles. At the A120/Cambridge Road junction, this would be above capacity in the AM and PM peaks, with queues exceeding 6 minutes in the morning and 10 minutes in the evening, again as a result of cars attempting to turn right out of Cambridge Road, although the queues are still likely to be small in length due to the minor nature of the road. At the junction of the A120 with Station Road in Standon, the junction is likely to be above capacity during the AM peak hour and within capacity in the PM. Queues would be in the region of 7 minutes and 4 minutes respectively in the AM and PM, again due to right turning out of the road. At the A120/Horse Cross junction, this would now operate above capacity in the AM and PM peak hours. In the morning, this would result from right hand turns into Horse Cross, and in the evening from queuing from the Horse Cross approach into the junction. At the A120 roundabout with the A1184, this would operate above capacity during both the AM and PM peaks, being a worse situation than had the bypass not been provided. Problems would result from congestion arising from both A120 approaches (North and West) and the Hadham Road arm of this junction. However, the analysis identifies that there will be significant benefits persisting at the A120/Albury Road

signalised junction in Little Hadham, with this junction still operating within its theoretical capacity threshold at all times of the day.

- 6.27 In summary, therefore, the bypass is seen to significantly reduce delays on the A120 between its eastern point at the A1184 and its western end at the A10. Traffic will be attracted to the new route, with the inclusion of new trips plus the removal of traffic that currently uses inappropriate minor roads as a means of avoiding the signalised junction within Little Hadham. The traffic attracted to use the bypass will relieve the congestion that routinely occurs at the A120/Albury Road junction, as well as the A120/Cradle End junction. However, the provision of a bypass is likely to have a detrimental impact upon the operation of the following junctions:
- A120/A10
 - A120/Cambridge Road
 - A120/Station Road
 - A120/Horse Cross
 - A120/A1184

Journey times

- 6.28 In respect of journey times, the bypass will remove the need for east-west traffic to go through the signalised junction in Little Hadham. Journey times have been modelled, which indicate that without the bypass average journey times in 2019 travelling westwards along the A120 from a point east of the proposed bypass to a point just west of it would be in the region of 13.7 minutes during the AM peak, and 13.0 minutes in the PM. The bypass will significantly improve this, as travelling along the new stretch of road will reduce this time to 4.6 minutes in both the AM and PM peaks, equating to a reduction of 9.1 minutes and 8.4 minutes respectively. In the reverse eastbound direction, journeys without the bypass in 2019 would be in the region of 13.3 minutes in the AM peak and 13.1 minutes in the PM peak. The bypass would reduce this journey time to 4.6 minutes in the AM peak and 5.0 minutes in the PM peak; a saving of 8.7 and 8.1 minutes respectively. Even outside of peak hours it is estimated that there will be time savings of 3.6 minutes in a westerly direction (7.6 minutes reducing to 4.0 minutes) and 4.4 minutes in an easterly direction (8.2 minutes down to 3.8 minutes). The time taken to travel through Little Hadham along the old route of the A120 will also be significantly reduced as a result of a decrease in the volume of traffic using this road, together with the re-phasing of the signalised junction to cater for this.
- 6.29 In addition, there are four local bus services that travel through Little Hadham, and all of these will benefit from the bypass due to the significantly reduced journey times through the village itself. Two of these services also serve Standon, benefitting public transport users in that village. However, it is accepted that bus services in Standon travel along Station Road and the High Street. As already outlined, there are

likely to be delays on Station Road. Nevertheless, of the three services that use this road, only one operates on a weekday during peak hours, so the impact on these three services will be relatively minimal. The other service along Standon High Street should not encounter any problems as the A120 junction with the High Street is anticipated to operate within its capacity.

- 6.30 In respect of pedestrians and cyclists, the public rights of way that are crossed by the bypass will be reconnected, and this is explained further later within this report. Notwithstanding this, it is considered that the reduction in the volume of traffic through the centre of Little Hadham will provide a better environment for pedestrians and cyclists in the village, making it easier for pedestrians to cross the A120 and allowing cyclists to have shortened queues at the signalised traffic junction.

Highway safety

- 6.31 During the period of 1 December 2009 to 30 November 2014, personal injury collision data has been obtained. This indicates that 73 personal injury collisions occurred in this period within the study area, with two of these being fatalities and 10 being classified as serious.
- 6.32 The road safety engineering team within the county council produce an annual list of hazardous sites, identifying locations where there has been a cluster of personal injury collisions. An annual programme of engineering schemes and measures follows from this to address such locations, balancing this against the county as a whole. Currently there are no sites under such investigation on the A120, although the county council will continue to monitor the road as part of this annual exercise.

Proposed mitigation

- 6.33 In order to alleviate against the detrimental impacts of the proposed bypass on parts of the existing highway network at the eastern and western ends of this stretch of the A120, the county council intends to provide further mitigation. Within the Standon area, it is acknowledged that the best solution would be to provide a further local bypass to that village. However, this is not possible as part of this scheme, with funding only being made available for the Little Hadham section of road, which was considered as being the priority. Nevertheless, the county council's current agreed strategy is to promote local bypasses for both settlements, with a further desktop study now taking place to define potential corridors for such a scheme. The results of this will feed into the long-term transport vision for Hertfordshire.
- 6.34 In addition, should issues be identified in the Standon area post-implementation of the bypass, the county council will consider interim mitigation measures at appropriate strategic locations. With this in mind, the county council will assess likely future traffic flows, which will

assist in the provision of improvements to the highway network within a reasonable timeframe.

6.35 At the A120/A1184 roundabout, the planning consent for the Bishop's Stortford North expansion includes the provision of minor improvements to this junction, consisting of amendments to the splitter islands in order to increase the entry widths on the A120 (North), A120 (West) and the A1184 approaches. It is further proposed that additional capacity improvements should be provided comprising:

- The widening of the A120 (West) approach to the junction to allow for two lanes of traffic.
- The widening of Hadham Road to increase the flare length of that junction.

It is believed that these works can be carried out within the highway boundary. The results for the mitigated junction show that the roundabout will be operating at its theoretical capacity threshold in the AM and PM peak hours in the opening year of the bypass. Although in 2024 the A120 (North) arm in the AM peak hour and the A120 (West) arm in the PM peak hour are slightly above their theoretical capacity, this is considered to be acceptable as likely queues are not considered to be excessive and the junction was identified as being over capacity to a much greater extent in the 2024 scenario where a bypass had not been provided.

6.36 It should be noted that Highways England has not objected to the grant of planning permission for this scheme, nor does it suggest the imposition of any conditions. Similarly, the Highways Authority has not objected, although it wishes to see the imposition of conditions relating to:

- A phasing programme.
- Details of all proposed highway infrastructure or any changes to the existing highway infrastructure.
- A Construction Traffic Management Plan.
- The requirement that the bypass shall not be brought into use until it has been constructed to the satisfaction of the local planning authority.

6.37 The Highways Authority also sets out an advisory note recommending that traffic monitoring shall take place post-construction within 12 months of the bypass opening, with associated studies submitted to the local planning authority in order that the extent of mitigation measures on the existing route can be determined. However, this monitoring is fundamentally important and crucial to the effective operation of the local highway network, and it is considered that this should also form a requirement by virtue of the imposition of a condition.

6.38 Consequently, in summary, the proposed bypass would substantially reduce journey times for vehicles travelling along the A120 between the A10 and A1184. As a result, it is likely that traffic will be attracted to the A120 from other routes including less appropriate minor roads that are

currently used to avoid the delays at Little Hadham. This may lead to issues around the Standon area including at the A10 junction, although the county council has made a commitment to monitor the operation of the road network in this area post implementation of the bypass. If significant capacity issues are identified, the county council will look at all opportunities for providing appropriate mitigation.

Need and justification for the flood alleviation measures

- 6.39 As previously explained, the bypass has been designed in order that it also provides downstream flood relief to Little Hadham and Hadham Ford. This is through controlling the flow allowed downstream of the proposed bypass crossing points of the River Ash and the Albury Tributaries, which flows into the river just north of the signalised traffic junction in Little Hadham. The Lloyd Taylor Drain, which presently flows into the Albury Tributary just before it meets the River Ash to the north of the signalised traffic junction, will be diverted as part of the overall scheme so that it meets the River Ash to the south of the signalised junction, again controlling the flow of water into the River Ash.
- 6.40 There have been six extensive flooding events between 1947 and 2014, with one severe flooding event experienced in the village in 2001. Following flooding in 2001, the Environment Agency developed the River Ash Flood Risk Management Strategy (FRMS) to examine the extent of flooding along the river and to evaluate potential solutions for reducing flood risk. No solutions were implemented at the time due to a lack of funding. However, it was considered that a proposed bypass offered a solution whereby flood waters could be held upstream of the bypass, with the waters controlled so that flooding of properties in Little Hadham and Hadham Ford no longer occurred. The route of the bypass was therefore planned with this dual benefit in mind. Results of fluvial hydraulic modelling illustrated that the maximum benefits came from providing culverts beneath the bypass with additional flow control devices installed on the downstream face of these, thus significantly restricting the flow of water downstream as and when required. It was also recognised that the Lloyd Taylor Drain had an impact on the flooding of properties. Although this is not crossed by the bypass, therefore giving no ability to provide an embankment, diverting the drain so that it fed into the River Ash to the south of the village alleviated local flood risk to Little Hadham and did not create any more risk of flooding than any other available solutions.
- 6.41 Current modelling of the river indicates that 72 properties in Little Hadham and Hadham Ford are at risk from a 1 in 100 (1%) chance of flooding in any year. Using the flood model to assess the benefit of the scheme, it is estimated that these 72 properties would have a reduced risk, with 69 no longer being at risk from a 1 in 100 (1%) or greater annual probability of river flooding. Consequently, the justification for

the flood alleviation scheme is compelling when one considers the overall benefits and the removal of the flood risk.

Flood Risk Assessment

- 6.42 The NPPF requires that flood risk is taken into account at all stages of the planning process. The framework also requires that a Sequential Test be applied during the planning process to ensure that preference for developable land is given to land that has the lowest risk of flooding, with this being primarily based on the Flood Zoning system. The EA's Flood Zone mapping indicates that the proposed bypass will cross all three Flood Zones in the vicinity of the main channel of the River Ash, with the area directly adjacent to the watercourse being located where the risk of flooding is highest.
- 6.43 Underpinning the Sequential Test is the aim to direct development away from areas of flood risk. If this cannot be achieved, it may be possible to demonstrate that development is still feasible by the management of flood risk by way of an Exception Test. The Exception Test within the NPPF requires the demonstration that:
- The development provides wide sustainability benefits that outweigh the flood risk; and
 - A Flood Risk Assessment must be able to demonstrate that the proposed development either does not cause increased flood risk elsewhere, or reduces flood risk.
- 6.44 In this instance the course of the bypass has been chosen specifically to ensure that it provides the necessary and identified flood alleviation measures. This can only be effective if the bypass crosses the Ash and the Albury Tributaries in order to control flood flows. Therefore, the application of the Sequential Test is not considered appropriate for the crossing of the River Ash and Albury Tributaries or, for that matter, the proposed works to the Lloyd Taylor Drain. It is therefore necessary to judge the scheme with reference to the Exception Test.
- 6.45 As already described, the provision of culverts with flow controls at the points where the bypass will cross the River Ash and the Albury Tributaries will allow flood water to back up upstream of the bypass. This will result in the temporary flooding of rural undeveloped agricultural land instead of properties in Little Hadham and Hadham Ford. In addition, the works to the Lloyd Taylor Drain have been designed to reduce flooding within Little Hadham. Therefore, it can be concluded that the proposed development meets the Exception Test.
- 6.46 The ES concludes that the development will ultimately have a major beneficial impact on Little Hadham. However, there will be a major adverse impact on the land upstream of the embankments on the River Ash and Albury Tributary. However, the land upstream of these is agricultural or wooded in nature and the flooding of these, whilst being far from ideal, is considered preferable to the continued risk of the

flooding of residential properties within Little Hadham. The applicants have stated that they are in discussion with landowners likely to be affected by the impounding of floodwaters for temporary periods of time, discussing ways in which their land can be beneficially managed in this regard.

- 6.47 Albury Parish Council has raised concerns about the impact of the flood alleviation scheme on the parish of Albury, particularly asking whether the scheme will make the situation worse within the parish, exacerbating the flooding in Clapgate and Albury. However, the flood event modelling that has been produced within the ES shows that as a result of the flood alleviation scheme, flood waters will be backed up no further than presently exists, thus having no greater impact on those communities.
- 6.48 The Local Lead Flood Authority (LLFA) has responded to state that, in its view, the proposed development site can be adequately drained and mitigate any potential existing surface water flood risk if carried out in accordance with the overall drainage strategy. The drainage strategy details an assessment of the potential increase in flood risk and how to manage the increase in run-off rates, volumes and overland flows and the LLFA considers that the applicant has demonstrated that an appropriate sustainable drainage scheme can be implemented in accordance with industry best practice, prioritising on surface drainage methods such as swales, ponds and filter drains. These are able to provide adequate storage, water quality treatment and, where possible, biodiversity benefits. The LLFA further considers that the drainage strategy provides evidence of a clear management and treatment train for the SuDS system.
- 6.49 Consequently, the LLFA does not object to the application so long as a condition is imposed to ensure that the development is carried out as described.
- 6.50 The Environment Agency is also content with the proposed development so long as a number of conditions are attached to any permission under the following broad headings:
- Requirement for detailed design of the impounding structures and controls on the River Ash and Albury Tributary.
 - Requirement for a scheme to provide adequate floodplain storage compensation at the Cradle End Brook crossing.
 - Any facilities for the storage of oils, fuels or chemicals shall be provided with secondary containment that is impermeable to both the oil, fuel or chemical and water.
 - A scheme for surface water disposal to be submitted.
 - No infiltration of surface water drainage into the ground along the length of the bypass is permitted.
 - No further development to be carried out if contamination is encountered, with a requirement for a strategy to deal with this.

- Requirement for a scheme to secure the protection of licensed and un-licensed sources.
- Piling or any other foundation designs using penetrative methods shall not be permitted.
- The scheme must be completed in accordance with the mitigation measures outlined in the Water Framework Directive assessment document.
- The development hereby permitted shall not be commenced until such time as a biodiversity enhancement scheme has been agreed.
- There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. Also there shall be no light spill from artificial lighting in the areas to be enhanced for wildlife.
- No development until a detailed method statement for removing or the long-term management/control of Japanese Knotweed.

Development in the Green Belt

- 6.51 The most eastern stretch of the proposed bypass, running for an approximate distance of 900 metres from the proposed roundabout at Hadham Park to land just north east of the proposed Hadham Park underpass, is located within the Metropolitan Green Belt.
- 6.52 Paragraph 79 of the NPPF lists the five purposes of Green Belts, these being:
- to check the unrestricted sprawl of large built-up areas;
 - to prevent neighbouring towns merging into one another;
 - to assist in safeguarding the countryside from encroachment;
 - to preserve the setting and character of historic towns; and
 - to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 6.53 Paragraph 87 of the NPPF states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. This reiterates the general approach of Policy GBC1 of the East Herts Local Plan, which states that permission will not be given for inappropriate development within the Green Belt unless very special circumstances can be demonstrated that clearly outweigh the harm by reason of inappropriateness or any other harm.
- 6.54 Paragraph 90 of the NPPF states that certain forms of development are not inappropriate in the Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in the Green Belt. One such form of development is “local transport infrastructure which can demonstrate a requirement for a Green Belt location”.
- 6.55 In this particular instance, being of such a large size and scale and related to a strategic approach to a classified A road, it is debateable

whether the proposed development consists of local transport infrastructure. In any event, it is considered that, when looking at the potential alignment of a bypass for Little Hadham, there was a requirement for the scheme to utilise part of the Green Belt as part of its proposed route. Consequently, with reference to Paragraph 90 of the NPPF, if the proposal falls within the broad definition of 'local transport infrastructure' then it is considered that the proposed bypass meets the general definition of 'appropriate development', although this is reliant on the development preserving the openness of the Green Belt as well as ensuring that it complies with the purposes of including land within the Green Belt.

- 6.56 On this latter point, it is considered that this relatively short stretch of the new road will still undoubtedly result in a significant encroachment into the countryside, contrary to one of the primary purposes of the Green Belt. This section of the bypass is proposed to run at or just above existing ground levels, with no part of the carriageway being more than one metre above the existing ground levels. In fact, the final stretch towards the new roundabout runs just below existing levels. Natural planting alongside the new road will assist in the integration of the development with the landscape, thus reducing any impact on openness. Nevertheless, despite minimal changes in the topography of the land, it is clear that the openness of the Green Belt will be affected to some degree. Furthermore, the introduction of a new roundabout with associated lighting columns will also adversely impact upon openness, although the specific lighting details will ultimately be developed to minimise impact as a consequence of ecological mitigation. Therefore, although it may be argued that the development amounts to local transport infrastructure that can be considered appropriate development within the Green Belt, the fact that the proposed bypass will have an adverse impact on openness – together with it resulting in encroachment into the countryside – means that it must be considered inappropriate development in this instance. As such, there must be very special circumstances that overcome the acknowledged harm.
- 6.57 The primary very special circumstance is the benefit that the road will have on journey times along the A120 and the alleviation of the congestion within the village of Little Hadham. The bypass forms part of a strategic solution to improve the east-west primary road network, which has a benefit to economic development within the wider region. It is recognised that the provision of a bypass is vital to not only cater to existing needs but to future proof the A120 to take into account future planned development. The need and justification for a bypass were identified in the Hertfordshire Local Transport Plan. There is therefore clear justification for a bypass, and it is inevitable that part of that bypass would encroach into the Green Belt. In addition, although none of the proposed flood alleviation measures will be located within the Green Belt, without the bypass there would not be the funding and

opportunity for flood alleviation measures to be constructed to benefit the 72 residential properties in Little Hadham.

- 6.58 Consequently, it is concluded that, although the development will have an adverse impact on openness, the design of the development will assist in minimising this, thus allowing the bypass to assimilate with the landscape in this particular area. Furthermore, although the proposal represents inappropriate development in the Green Belt, there are clear very special circumstances that outweigh the acknowledged harm as well as any other harm.

Development in the Rural Area Beyond the Green Belt

- 6.59 The remaining majority length of the proposed bypass from Hadham Park eastwards to the new Tilekiln roundabout, together with the associated flood alleviation measures, all fall within the Rural Area beyond the Green Belt, as designated within Policy GBC2 of the East Herts Local Plan. The policy states that inappropriate development will not be permitted within the Rural Area, with Policy GBC3 setting out a list of development that would be considered appropriate within such a location. A major road scheme of this nature, together with the associated flood alleviation works, is not considered to be an appropriate development within the Rural Area. A similar test to Green Belt policy considerations must therefore be applied, with the need for reasons that outweigh the harm to the Rural Area.
- 6.60 As described in the preceding section, the justification for a bypass at Little Hadham is compelling, and the need for the associated flood alleviation works is also compelling. Although such a development is not singled out as being appropriate within the Rural Area in the East Herts Local Plan, the plan itself explains that East Herts District Council supports the provision of a bypass for the A120 in this location, as it meets Local Transport Plan goals and objectives. As with the Green Belt, the harm to the Rural Area is considered to be overcome by the overriding benefits of the bypass and flood alleviation measures.

Landscape and visual impact of the development

- 6.61 Within the Landscape Strategy that accompanies this planning application, the identified key landscape features within the vicinity of the proposed bypass and flood alleviation scheme are set out as follows:
- River Ash corridor and associated gently undulating valley landform.
 - Little Hadham village, comprising a typical settlement in a rural setting.
 - Dispersed farmsteads and residential properties.
 - Small woodlands.
 - Hedgerow network defining small fields that are organic in shape.

- Existing linear A120 transport corridor.
 - Edge of major urban settlement at Bishop's Stortford.
- 6.62 In landscape terms, England is subdivided into a number of National Character Areas (NCAs), with the application site falling within NCA 86 (South Suffolk and North Essex Clayland), as defined by Natural England. The key characteristics of this NCA are:
- An undulating chalky boulder clay plateau is dissected by numerous river valleys, giving a topography of gentle slopes in the lower, wider valleys and steeper slopes in the narrower upper parts.
 - The agricultural landscape is predominantly arable with a wooded appearance.
 - Field patterns are irregular despite rationalisation, with much ancient countryside surviving.
 - Impressive churches, large barns and substantial country house estate dot the landscape, forming historical resources.
 - There is a dispersed settlement pattern of scattered farmsteads, parishes and small settlements.
- 6.63 Regionally, Landscape East (www.landscape-east.org.uk) brings together landscape, biodiversity, geodiversity, historic environment and spatial planning interest to steer the development of the East of England Landscape Framework. It has defined a range of landscape character types for the area and the site falls within Settled Chalk Valleys and Wooded Plateau Farmlands. It describes perceptions of the area as '*generally a peaceful, rural landscape ... with framed views down and across valleys*'.
- 6.64 Local Character Areas (LCAs) have also been designated by East Herts District Council, which consist of Supplementary Planning Guidance to the East Herts Local Plan. The site travels through several local character areas, namely:
- Perry Green Uplands (86); Just touches the site of the proposed roundabout at the eastern end of the scheme.
 - Wareside – Braughing Uplands (89); A majority of this character area lies to the west of the scheme, however it follows the valley side and just comes into the western half of the scheme.
 - Hadhams Valley (93); This is the dominant character area to the south of the scheme and contains the proposed roundabout at the western end.
 - Upper Ash Valley (147); This is the dominant character area to the north of the scheme and contains the central corridor route.
 - Hadhams Plateau (150).
- 6.65 Paragraph 17 of the NPPF sets out the twelve Core Planning Principles. Those that are relevant to landscape state:
- *“Always seek to secure high quality design and a good standard of amenity for all existing and future occupants of the land and buildings;*

- *Take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting Green Belts around them, **recognising the intrinsic character and beauty of the countryside** and supporting thriving rural communities within it; and*
- ***Contribute to the conserving and enhancing of the natural environment and reducing pollution.***

6.66 In respect of the present scheme, a landscape and visual assessment has been carried out, which sets a baseline prior to the development taking place. The landscape and visual effects assessment for the development follows the Highways Agency DMRB 'Interim Advice Note (IAN) 135/10 Landscape and Visual Effects Assessment' and the Landscape Institute's 'Guidelines for Landscape and Visual Impact Assessment third edition' (GLVIA3). The former of these sets out that landscape and visual assessments should be based on a number of specified scenarios. In the first instance, landscape and visual assessments should be based upon the construction of the scheme. In the second instance, assessments should be based on the winter of the year of opening (to represent a maximum effect situation, before any planted mitigation can take effect), taking account of the completed project and the traffic using it. The third scenario is during the summer of the 15th year after project opening (to represent a least effect scenario, where any planted mitigation measures can be expected to be reasonably effective), taking account of the completed project and the traffic using it.

Proposed mitigation for landscape and visual impact

6.67 In order to provide mitigation in respect of landscape and visual impact, the proposed development will incorporate a number of measures. These include designing bridges so that they offer a lower physical mass and footprint than other options, making them less visually intrusive. In addition, the Albury Road Bridge will be positioned to the west of the existing alignment, rather than to the east, to reduce the amount of earthworks required and to retain more vegetation in the view for receptors located to the east.

6.68 Landscape mitigation proposals include the following:

- All planting to be of native species that are of local provenance and appropriate to the site species and habitat in the area.
- Roadside verges will incorporate ditches, hedges, trees and wildflowers where possible. Seeding will consist of specialist species mixes to create suitable grassland specific to the site, for example, chalky grasslands on embankments and cuttings.
- The proposed hedgerows will use native species consistent with existing hedgerows and include semi-mature trees at irregular spacing, at every 10-15 metres, in groups of one, three or five. The

hedgerows will form new field boundaries and replace hedgerows removed due to construction.

- Proposed lighting will be low level, directional lighting, reducing the visual impact in the day and at night.

6.69 However, due to access, inspection and maintenance requirements, it will not be possible to carry out planting on the proposed flood embankments. In addition, since the original submission of the planning application, there has been an identified need to relocate deer fencing on these embankments. Whilst deer fencing was originally proposed along the length of the bypass close to the proposed hedgerows, maintenance issues surrounding the Albury Tributary and River Ash flood embankments means that the deer fencing has to be moved from the toe of these to their crest, increasing the ease of inspection of these and preventing flood waters from reducing their longevity. The verges on the crest of each embankment have therefore had to be increased by 500mm on both north and south sides.

Assessment of effects - landscape

6.70 The construction of the bypass and flood alleviation scheme will have a significant adverse impact on the wider landscape. Construction works will include large-scale earth moving, the construction of haul roads and the removal of existing vegetation. In addition, there will be the presence of fixed construction plant, site compounds, security and safety lighting, together with the use of mobile plant and machinery, and associated construction traffic. However, it is acknowledged that the construction phase is, by its very nature, a temporary operation and, although the visual and landscape impacts will be significant, the impacts will also be temporary. Construction of the bypass is scheduled to commence in 2017, with completion anticipated by Spring 2019.

6.71 In respect of the completed operational bypass and flood alleviation scheme, the Environmental Statement assesses it in line with its national and regional designations. The ES states that the development will have a neutral impact on the South Suffolk and North Essex Claylands of NCA 86, as the magnitude of impact will be of 'no change'.

6.72 Regionally, in respect of the Settled Chalk Valleys of the area's regional designation, the development will pass through this landscape area on embankment and in cutting. The ES states that the creation of a large embankment across the River Ash valley will change the perception of this area from a natural valley landscape to one that includes a new man-made engineering feature with passing vehicles. It is judged that the magnitude of impact will be Moderate Adverse and the overall significance of effect of the development on the Settled Chalk Valleys in this area is Moderate Adverse. In respect of the other strand of the regional designation, namely the Wooded Plateau Farmlands, the ES

describes the scheme and the Albury Road Bridge as passing across a previously agricultural landscape. The ES considers that the presence of an over-bridge on this relatively flat landscape will be a distinctive piece of infrastructure but no greater than nearby commercial buildings. Accordingly, it is considered that the development will not affect the integrity or people's perception of the wider area. It is judged that magnitude of impact will be negligible adverse and the overall significance of effect of the development on this area is Neutral.

- 6.73 On a local scale, it is necessary to assess the landscape impacts of the development on each of the LCAs in turn. This has been carried out travelling east to west through the route of the proposed bypass.
- 6.74 In respect of Perry Green Uplands, this LCA is predominantly located to the south of the existing route of the A120, adjoining Bishop's Stortford to its eastern boundary. The only part of the proposed development that will affect this LCA is the new roundabout at Hadham Park, which is on the northern boundary of the LCA. The new infrastructure will be linked to the existing road network and, as such, it is relatively compatible with the existing landscape, being relatively well screened from the south. The ES concludes that there will be a Neutral significance of effect. However, this must be questioned as the ES does not refer to the lighting columns that will need to be placed at the roundabout, although it is accepted that the final detail of the proposed lighting has yet to be formally set out and would need to be agreed at a later stage.
- 6.75 When looked at in terms of the situation 15 years after the bypass has been operational, the ES judges that there will remain a Neutral significance of effect.
- 6.76 Moving westwards, the next LCA is Hadham Plateau, which runs in a broad swathe north from the existing A120 to the east of the Ash valley. This LCA incorporates Hadham Hall, Hadham Park, Church End and Upwick Green. The north eastern section of the bypass cuts across this LCA in a sweeping arc. Much of the road will be at grade in this section, although land will be raised to provide a noise amelioration bund to the north of Hadham Hall as well as ground raising to provide Cradle End Brook Culvert. Whereas the original intention was to have provided a bridge at Hadham Park to go over the bypass, this has now been replaced with an underpass, which lessens the impact of the development on the landscape in this location. In general, the area is softly undulating and rural, with small fields marked with mature hedge boundaries. A power line with associated electricity pylons is prominent in the existing landscape to the west of Bloodhounds Wood and to the north east of the proposed route of the new road. The development will result in the loss of trees and hedges, and the existing field pattern will also be lost to some extent. The ES judges that the overall significance of effect on the Hadham Plateau LCA is Moderate

Adverse due to the infrastructure of the road and its associated traffic conflicting with the rural character of the landscape.

- 6.77 Fifteen years after the bypass is operational, the ES concludes that the impact on the Hadham Plateau LCA will remain as Moderate Adverse. Even though the scheme is likely to be much less conspicuous as the roadside planting matures, the ES takes the view that the relative impact of the development in this LCA will not reduce its impact to Slight Adverse.
- 6.78 To the west, and following the line of the River Ash northwards from Little Hadham, is the Upper Ash Valley LCA. The scheduled monument at Mill Mound falls just within this character area. Travelling west, the bypass will at first be in a relatively deep cutting (over 5 metres below existing ground levels) in the vicinity of Mill Mound. It then emerges out of this on the eastern valley side where it must then cross the valley, and the River Ash, on a large and high man-made embankment. This forms part of the River Ash Flood Alleviation Scheme. The development is likely to be at its most prominent in this location, before it heads into a cutting on the western valley side. The embankment will form a large physical barrier within the valley, and the ES takes the view that the Upper Ash Valley LCA may well start at this point at some time in the future. A further impact will result from a new bridge that will be constructed to enable Albury Road to cross the bypass just north of Little Hadham. The copse of trees at Mill Mound will be retained and will remain a prominent feature within the landscape. There will be a limited loss of hedgerows and minimal impact on field patterns as the route of the bypass is relatively parallel to three of the four field boundaries in the area. There will also be a temporary impact on landscape north of the embankment at times when the agricultural land in this location is used to act as a floodwater holding basin. The ES judges that the development will result in a total loss of valley character due to the road and its associated infrastructure as it crosses the Ash, which will give an overall significance of effect of Moderate Adverse. However, the county council's landscape officer is of the opinion that this should be viewed as being Moderate-High.
- 6.79 Fifteen years after the opening of the bypass, the ES judges that the overall effect of significance on the Upper Ash Valley LCA will remain Moderate Adverse. This is on the basis that the proposed flood embankment cannot be planted and this will remain a visible feature in the landscape.
- 6.80 The next LCA that is encountered is Wareside/Braughing Uplands. This is predominantly located to the west of the route of the proposed bypass and going as far as Standon, but one arm of it skirts to the south of Albury and runs between Albury Tributary to the west and Albury Road to the east. The bypass will cut through a spur that separates the valley of the River Ash with that of the Albury Tributary to the west. At the spur, the road will be in a cutting. The ES considers

that the scheme will not result in a significant change in the perception of the landscape in this LCA, with the overall significance of effect being Neutral. The county council's landscape officer has concluded that the overall significance of effect should be regraded as Neutral-Slight.

- 6.81 After a period of 15 years, the ES judges that the overall significance of effect on this LCA will remain Neutral.
- 6.82 Finally, the most western section of the bypass up to where it joins with the existing A120 at the Tilekiln roundabout is located within the Hadhams Valley LCA. This character area extends to the south of the village of Little Hadham incorporating the valley of the River Ash, although one arm of this – being the area that the bypass crosses – is located to the north of the A120 with the Albury Tributary forming its eastern boundary. The proposed development will result in the loss of mature vegetation, and the presence of a new section of road together with the Tilekiln Roundabout and its associated left hand turn lane, signs and lighting columns will introduce an urban character to the existing rural landscape. The perception of the landscape character will change as it becomes enclosed by the bypass where it crosses diagonally across a large field, eroding the field pattern and rural character. Although it is smaller in scale than the River Ash embankment, the Albury Tributary Flood Attenuation Embankment cuts across the sweep of the valley and creates a horizontal barrier across the valley, and this is further emphasised by the presence of the linear noise barrier and the requirement to maintain the embankment vegetation to no more than short grass to allow access and maintenance that will give the embankment a smooth, engineered appearance. The influence of the development on this LCA is limited by the valley topography, built form of the existing A120 and Little Hadham, together with the vegetation along field boundaries and in woodland blocks. Therefore the ES considers that the changes will not detract from or change the overall perception of the wider LCA, a majority of which lies to the south of these limitations. The ES judges that the overall significance of effect on this LCA is Moderate Adverse. This assessment is due to the introduction of new urban features, such as signs and lighting columns, which diminish the existing rural landscape of the LCA.
- 6.83 After 15 years, the ES considers that the overall significance of effect on the Hadhams Valley LCA will remain Moderate Adverse. This is despite the planting around the Tilekiln roundabout maturing, thus providing an element of assimilation into the landscape. In addition, the embankment at the Albury Tributary will not be able to be planted and, whilst its impact can be lessened through sensitive planting elsewhere, its visual and landscape impact is not completely overcome.

Assessment of effects – visual

- 6.84 The applicants have produced a Zone of Theoretical Visibility (ZTV), showing the area of land from which there could potentially be a view of any part of the bypass and associated works. The ZTV represents a worst case scenario as the extent of visibility is derived from land form only and does not take into account existing visual barriers such as existing buildings or vegetation. This has assisted in the effective identification of visual receptors. Of these, a selection of appropriate representative and principal viewpoints have been chosen. In total, five principal viewpoints have been identified, with photomontages being produced showing the evolution of the scheme over the 15 years. Fourteen additional representative viewpoints have also been identified within the ZTV and study area to inform the assessment, being representative of the visual experience from different receptor types across the study area.
- 6.85 During the construction of the bypass, the ES concludes that there will be a very large adverse effect at 1 and 2 Plantings Cottages, to the east of the proposed Hadham Park roundabout, as the loss of mature trees will allow a clear view of construction works. Views of the construction works from two other residential receptors have been classed as having a large adverse effect, with seven moderate adverse effects due to filtered views of the works. Recreational receptors are those such as public rights of way, which members of the public routinely use and enjoy. Of these, the construction works will have very large adverse effects on ten of these, with three large adverse and four moderate adverse effects. One moderate adverse effect is identified from a transport receptor – being a receptor used by other road users in the vicinity of the scheme – and this is at Albury Road, where the construction of a bridge and road cutting will be constructed to cross the bypass. Two commercial/public receptors, being the businesses at Hadham Park and the Parish Church of St Cecilia at Church End, will have views of the construction works, which are judged to have moderate adverse effects.
- 6.86 However, in all cases, the effects will be temporary. The overall scheme has a construction timescale of approximately two years, and each element of the development will have a shorter build time. Therefore, the temporary effect on each receptor should be significantly less than two years.
- 6.87 In respect of the visual impact of the operation of the bypass, 23 potential residential receptors have been identified within the study area. These are predominantly located to the south of the bypass, including three properties at Little Hadham, three at the Hadham Hall complex and two at Cradle End. Additionally two properties are located to the west and north-west of the bypass, two are located to the east and four to the north. Existing views from all of these towards the bypass and flood alleviation scheme are predominantly rural,

overlooking their own gardens and surrounding vegetation with the wider agricultural landscape visible beyond. The sensitivity of identified residential receptors, as set out in the Environmental Statement, is considered to be high.

- 6.88 Three residential receptors, consisting of individual or small groups of residential properties, have been judged within the ES as having a large adverse impact from the development after the bypass has been operational for one year. These are the properties at Lime Kiln Bungalow at the north western edge of Little Hadham; 8 and 9 Baud Close on the northern boundary of the Hadham Hall site; and 1 and 2 Plantings Wood Cottages, to the east of the proposed roundabout at Hadham Park. After 15 years, the effect on Lime Kiln Bungalow is judged to reduce to a slight adverse effect, whereas 1 and 2 Plantings Wood Cottages will reduce to a moderate adverse effect; in both cases due to the maturation of landscape planting. Numbers 8 and 9 Baud Close will, however, continue to have a large adverse impact, predominantly as the embankment over the River Ash will be visible, with traffic adding movement to the vista that is currently not present. In addition, The Lodge on Standon Road will be located adjacent to the proposed Tilekiln roundabout. The development is judged to have a moderate adverse effect after one year, with this persisting into year 15 as a result of views towards the realigned road and associated lighting columns.
- 6.89 From a recreational point of view, there are 18 bridleways and public footpaths within the study area, including the Hertfordshire Way. They are located on all sides of the proposed development with nine crossing, entering or being located adjacent to the development area. The views along these routes are predominantly across open agricultural land with occasional enclosures provided by mature hedgerows, groups of buildings and areas of woodland. The sensitivity of users of these receptors is also judged to be high.
- 6.90 The ES considers that of the recreational receptors, after one year a total of seven of them will have very large adverse effects, six will have large adverse effects, and four will have moderate adverse effects. Of these, only one of the receptors with very large adverse effects will reduce after 15 years to a large adverse effect, with the other six persisting. The majority of these are visible from public rights of way that cross the scheme and/or are diverted close to the development. As a result, they are in direct proximity to the bypass and mitigation is unable to improve the situation from these receptors. Of those with large adverse effects after one year, one will persist, with four reducing to moderate adverse effects and one to slight adverse effects. Of the four with moderate adverse effects, all will reduce after 15 years to slight adverse effects. All of these reductions are as a result of the landscaping coming into maturity.

- 6.91 In addition, there are identified transport receptors, these being the existing A120 to each side of Little Hadham, together with Albury Road, running northwards from the village. The sensitivity of users of these receptors, as set out in the Environmental Statement, is considered low. However, due to the rural nature of this road and its recreational use, the county council's Landscape Officer has advised that this should be low-moderate.
- 6.92 The ES judges that none of the transport receptors have large adverse effects. One is judged to have a moderate adverse impact, being the view from Albury Road, but this drops to a slight adverse impact once the planting matures after 15 years.
- 6.93 Within the public/commercial realm, there are views from the Parish Church of St Cecilia within Church End to the north and west, and the sensitivity of this receptor is considered to be moderate. The other such receptors consist of businesses at Hadham Park and Hadham Industrial Estate, located in enclosed clusters with some outward views to the surrounding countryside. Hadham Industrial Estate is located on elevated ground so has more open views to the north. Two other commercial receptors include the property to the south of Standon Road (located to the west of the bypass) with views across Standon Road and the vegetation beyond, and the Post Office/Little Hadham Village Hall, with views across an open agricultural field. The sensitivity of all of these is judged to be low.
- 6.94 The ES judges that the development has a moderate adverse effect on one such receptor, being the one at the Parish Church of St Cecilia. However, after 15 years this is judged to have a slight adverse effect.
- 6.95 Albury Parish Council has expressed its concerns regarding the visual impact of the development when viewed from the north, stating that this has not been properly addressed with a need for further mitigation, especially with reference to the embankment over the River Ash. The parish council suggests that negotiations take place with landowners to see what further mitigation, in the form of planting, can take place. However, the residential receptors that will be most affected, as well as those within the public/commercial realm, are all located to the south of the bypass. This lessens the need for planting, in addition to that already proposed, on the northern side of the new road. A number of recreational receptors are located to the north of the bypass and many of these are adversely affected by the development, although this impact lessens over time. In any event, these are often located very close to the route of the proposed bypass and, even with the agreement of landowners, there is no guarantee that additional planting would be of assistance in these instances.

Summary

- 6.96 It is clear that the introduction of a major scheme of this nature into the wider rural landscape will have an impact on the landscape and from a visual perspective. It is of no surprise that elements of this are considered likely to have large adverse effects on the landscape and on visual receptors within the vicinity of the scheme. As set out in the county council's landscape officer's comments on the present application, the proposed development results in permanent significant adverse landscape and visual effects. Disappointment has been expressed that on-site mitigation is limited due to the tight site boundary.
- 6.97 The landscape officer's advice continues to state that the proposed landscape mitigation strategy is, nevertheless, the most effective it can be within the constraints of the site boundary, especially bearing in mind the inability to plant the banks of the flood embankments. The fine details of all on-site mitigation is yet to be agreed, with such items being dealt with by way of a pre-commencement planning condition, and this will provide a further opportunity for the landscaping to offer the best mitigation that can be achieved.
- 6.98 Additionally, there is a requirement for off-site mitigation to take into account the scheme's impact on ecology. This will be described later within this report, but it is considered that such off-site planting for ecological purposes will assist in mitigating against the landscape and visual effects of the overall scheme.
- 6.99 Although the scheme has been revised in respect of the proposed deer fencing, whereby this has had to be moved to the crest of the two flood embankments, this is not ideal but should not add any greater significant harm to the visual impact of the development, on the basis that the design of deer fencing is relatively open and rural in character.
- 6.100 Paragraph 56 of the NPPF states that "good design is a key aspect of sustainable development...and should contribute positively to making places better for people." Although the development will be visible within the rural landscape, it has not been poorly designed, and much thought has been given to the design of the scheme and the ways in which any negative impacts can be mitigated. Although there will be some adverse impacts, there will also be positive impacts, primarily in terms of an improvement to the existing A120 corridor and Little Hadham itself from the removal of the majority of traffic from that route. Therefore, the bypass and flood alleviation scheme are not in conflict with the aims of the NPPF in terms of its quality of design.

Impact on residential and non-residential amenity

Air quality

6.101 Paragraph 124 of the NPPF states that:

“Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.”

6.102 The National Planning Practice Guidance, published in 2014, also refers to the significance of air quality assessments to determine the impacts of proposed developments in the area in which they will be delivered.

6.103 In respect of the proposed bypass, the ES has identified a total of 31 possible receptors, being those areas where exposure to traffic is potentially the greatest. These areas not only contain residential properties, but also include community facilities such as schools.

6.104 Following analysis and modelling of air quality, the ES has considered the impact of the construction phase of the overall scheme on air quality. This highlights that the Construction Environmental Management Plan (CEMP) for the scheme will contain best practice in respect of dust management. Although a draft CEMP has been produced within the ES, the full details of the CEMP will need to be submitted as a requirement of a pre-commencement condition, thus giving greater control to the local planning authority in respect of construction and its impacts on amenity.

6.105 The ES nevertheless considers that the sensitivity of the area to dust soiling around the proposed scheme is low, with no sensitive receptors within 50 metres of any dust generating activity. The sensitivity of the area to human health impacts is also judged as being low due to the low background PM₁₀ concentrations in the area. PM₁₀ refers to particulate matter that is 10 micrometres or less in diameter, being so small that they can get into the lungs, causing serious health problems. The ES therefore concludes that the site has been classified as low risk to dust soiling and low risk to human health for all construction activities at worst.

6.106 Once the bypass is operational, modelling has taken place to predict the annual mean nitrogen dioxide concentrations at the receptor locations. This identifies that seven of the 31 receptors will have a moderate beneficial improvement in air quality, and three will experience a slight beneficial improvement in air quality. The largest

improvements are seen at the Little Hadham crossroads and along the route of the existing A120, as traffic congestion will be significantly reduced from these areas. The remaining 21 receptors experience a negligible impact in terms of air quality once the scheme is operational.

- 6.107 In addition, annual mean PM₁₀ concentrations were predicted at the 31 receptor locations. The modelling concludes that the impact on PM₁₀ concentrations will be negligible at each of the receptors once the scheme is operational.
- 6.108 Consequently, no significant adverse effects on air quality, either during the construction of the scheme or during its operation, have been identified. However, a significant beneficial air quality impact has been identified in the village of Little Hadham as a result of the reduction of pollutant concentrations in the area.

Sound, noise and vibration

- 6.109 In considering the impact of the development in respect of sound, noise and vibration generated, it is necessary to assess these factors with reference to their impact on people as well as community facilities. The impact on people is primarily a consideration of the impact of sound, noise and vibration on the places where they live on an individual dwelling basis, but also in respect of shared community areas. The impact of these factors on community facilities includes schools, places of worship, hospitals, as well as commercial properties such as offices and hotels. These are collectively described as non-commercial receptors. As with air quality, sound, noise and vibration are assessed based on the construction of the scheme, as well as when it is operational.
- 6.110 The term 'sound' refers to the acoustic conditions that people experience as part of their everyday lives. The assessment considers how this is likely to change as a result of the scheme. 'Noise' refers to unwanted sound. Consequently, adverse effects are considered to be noise effects rather than sound effects. Again, as with air quality, noise or vibration effects may be adverse or beneficial. They may be temporary – as during the construction phase for instance – or permanent. They may also be direct, such as from the operation of the scheme, or indirect, such as when traffic patterns on existing roads are changed.
- 6.111 The Noise Policy Statement for England (NPSE) (2010) sets out the Government's aims regarding noise policy, which include:
- The avoidance of significant adverse impacts on health and quality of life.
 - The mitigation and minimisation of adverse impacts on health and quality of life.
 - A contribution to the improvement of health and quality of life.

6.112 In respect of the proposed scheme, for construction noise and vibration a study area has been established that includes all receptors within 300 metres of the proposed bypass and flood alleviation scheme, which is consistent with good practice. However, in respect of noise arising from the operation of the road scheme, the study area is extended to 600 metres around new or altered highways and sections of existing roads within 1km of the new works that are predicted to be subject to a change in noise level of no more than 1dB(A) as a result of the scheme opening.

Construction of the scheme

6.113 During the construction phase, and looking at each construction phase in isolation, the ES predicts that direct noise effects should not exceed significance thresholds for a duration of one month or longer at any residential receptor. However, noise levels are expected to exceed significance thresholds at two residential receptors, being those at Savernake, close to the Hadham Park roundabout; and The Lodge on Standon Road, close to the Tilekiln roundabout. Depending on the phasing of the works, there is a potential for the cumulative noise levels to exceed the significance threshold for over one month at these two receptors. Nevertheless, the ES concludes that the cumulative effects are unlikely to exceed the threshold for noise insulation qualification for longer than one month in duration or be significant in terms of government noise policy due to the relatively short duration of the works. The construction noise effects are therefore judged to be not significant.

6.114 The study concludes that there are no significant effects due to construction noise predicted at non-residential receptors.

6.115 In respect of indirect effects, it is estimated that there will be up to 400 daily HGV movements associated with the construction of the scheme, with these using the existing A120 to access temporary haul roads within the scheme. There should be a 50:50 split between each end of the scheme in terms of HGV numbers. Due to the high baseline of traffic on the current A120, the study concludes that the impact of the additional HGVs on the road will be negligible in terms of noise.

6.116 In respect of vibration during the construction phase, the study area is considered to extend 75 metres from the scheme with no adverse effects from vibration expected to be detectable beyond that distance. Of the residential receptors, The Lodge at Standon Road, close to the proposed Tilekiln roundabout, is identified as likely to have a minor construction vibration impact during vibro-compaction works. However, these works are scheduled to take place for relatively short durations, and certainly for no longer than one week at any one location. In this instance, the works will have no risk of damage to any property but there will be disruption. As such, the ES considers that this will result in a likely significant effect.

- 6.117 A potential major construction vibration impact is, however, identified at Hadham Lodge, close to the Hadham Park roundabout, as a result of vibro-compaction works. Nevertheless, a significant effect will be avoided by using alternative compaction methods, such as lower vibration compaction plant or static rollers. With this mitigation in place, it is judged that the residual effects will be not significant and this can be controlled by way of a condition.
- 6.118 There are no non-residential receptors within the construction vibration study area.

Operation of the scheme

- 6.119 At the outset of the design of the proposed bypass, an assessment was made of the residential properties most likely to be affected by operational noise. The greatest impacts were considered to be on the northern facades of the properties to the north of the existing A120 but to the south of the proposed bypass, such as those on Albury Road and at Hadham Hall. Where possible, 2.5 metre high noise attenuation bunds have been incorporated into the design of the scheme to allow for this. These are located on the southern side of the bypass to the west of Albury Road, where the bypass travels towards the Tilekiln roundabout, and to the north east of Hadham Hall.
- 6.120 In considering noise levels arising from the operation of the bypass, the Planning Practice Guidance for Noise sets out the following criteria:
- Significant observed adverse effect level (SOAEL) – this is the level of noise exposure above which significant adverse effects on health and quality of life occur.
 - Lowest observed adverse effect level (LOAEL) – this is the level of noise exposure above which adverse effects on health and quality of life can be detected.
 - No observed effect level (NOEL) – this is the level of noise exposure below which no effect at all on health or quality of life can be detected.
- 6.121 The Planning Practice Guidance for Noise provides a further explanation of this:

“As...noise exposure increases, it will cross the no observed effect level (NOEL) as it becomes noticeable. However, the noise has no adverse effect so long as the exposure is such that it does not cause any change in behaviour or attitude. The noise can slightly affect the acoustic character of an area but not to the extent there is a perceived change in quality of life. If the noise exposure is at this level no specific measures are required to manage the acoustic environment.

As...exposure increases further, it crosses the lowest observed adverse effect level (LOAEL) boundary above which the noise starts to cause small changes in behaviour and attitude, for example, having to turn up the volume on the television or needing to speak more loudly to be heard. The noise therefore starts to have an adverse effect and consideration needs to be given to mitigating and minimising those effects

Increasing noise exposure will at some point cause the significant observed adverse effect level (SOAEL) boundary to be crossed. Above this level the noise causes a material change in behaviour such as keeping windows closed for most of the time or avoiding certain activities during periods when the noise is present.”

- 6.122 In respect of the proposed scheme, modelling of predicted noise levels has identified that there will be some communities affected by the development, whereas others will benefit. For example, 12 properties within the small community of Albury End, located to the west and north west of the proposed bypass, are likely to have minor adverse impacts due to road noise. Similarly, two properties at Albury Lodge to the north of the proposed bypass will also have minor adverse impacts. However, in these instances the predicted noise levels at all of these properties are less than the LOAEL for traffic noise, so no significant effect has been identified on either community. A minor beneficial impact has been identified at The Lodge, Little Hadham, located adjacent to the western junction with the proposed bypass, as the noise level without the bypass is predicted to be greater than when the bypass is operational.
- 6.123 At the community of Little Hadham at the signalised traffic junction, beneficial impacts of the development are predicted at 82 residential properties as an indirect effect of reduced traffic noise on the existing A120. Major beneficial impacts are predicted at 23 of these, moderate beneficial impacts at 33, and minor beneficial impacts at the remaining 26. This is considered to result in a perceived change in the quality of life of residents of Little Hadham, with a significant beneficial effect on the community.
- 6.124 However, travelling north along the Albury Road from the Little Hadham crossroads, minor adverse impacts have been predicted at 13 residential properties, with one moderate adverse impact on Lime Kiln Bungalow, being the property closest to the proposed bypass. Nevertheless, the predicted level for traffic noise is still less than the LOAEL, so no significant effect has been identified on this particular community.
- 6.125 Within the community of Hadham Ford to the south of Little Hadham, minor adverse impacts are predicted at 35 residential properties as an indirect result of increased traffic flow along The Ash. The predicted noise levels at these receptors is considered to be above the LOAEL,

having a perceived impact upon the quality of life of this community such that there is considered to be a likely significant adverse effect on the community of Hadham Ford.

- 6.126 At Church End, out of a total of 10 residential properties, six are predicted to have a minor adverse impact from road noise from the bypass. All noise levels will be below the LOAEL, however, so no significant effect has been identified at these properties. To the east, at Hadham Hall, there are 25 residential properties. The study predicted that 17 of these will have major adverse impacts from noise from the bypass. This was due to the magnitude of the impacts compared to the relatively low predicted noise level in the area from existing conditions. However, a baseline survey was subsequently conducted to show the existing levels, which showed that existing levels were higher than predicted. Therefore, despite the magnitude of noise, levels are predicted to still be below the LOAEL at all properties, with no significant effect identified at Hadham Hall.
- 6.127 At Hadham Park, near the eastern end of the bypass, one residential property is likely to have a minor adverse impact, although this is below the LOAEL and no significant effect on communities has been identified.
- 6.128 At Green Street/Cradle End, to the south of the existing A120 and to the south of Hadham Park, beneficial impacts are predicted at 41 residential properties as an indirect result of changes to traffic flow on the A120 and in the local area. The effect is considered to be a significant beneficial effect on the community of Green Street/Cradle End.
- 6.129 At Bury Green, Cradle End, south west of Green Street/Cradle End, there is a total of 59 residential properties. Moderate beneficial impacts are predicted at two of these properties, with minor beneficial impacts predicted at nine properties. Again, this is due to an indirect effect of changes to traffic flow. Due to the low number of properties concerned, no significant effect on communities has been identified.
- 6.130 Lastly, at the property located at Savernake very close to the eastern roundabout of the bypass, a moderate adverse impact has been predicted as a result of traffic noise on the bypass itself. However, as this is just one isolated property, a significant effect on communities has not been identified. Nevertheless, this impact must still be considered with reference to the scheme as a whole.
- 6.131 Therefore, in summary, significant benefits are predicted at the communities of Little Hadham (82 residential properties) and Green Street/Cradle End (41 properties). There is, however, a significant adverse effect predicted on the community of Hadham Ford, which has 35 residential properties. In all cases, these changes arise from indirect impacts of the development. All other communities are

predicted to have no significant effect from the operation of the bypass, directly or indirectly.

- 6.132 Mitigation of noise has been considered at Hadham Ford in the form of noise barriers and low noise road surfacing. However, noise barriers would need to be more than two metres in height and would obstruct footways and driveways, as well as having a negative visual impact upon the community. In respect of road surfacing, this is most effective at speeds greater than 75km/h, yet the average speed through this community is in the region of 30km/h. Therefore, such mitigation would not be effective.
- 6.133 In respect of non-residential receptors, three have been identified within the study area:
- Little Hadham Primary School, Hadham Road, Little Hadham.
 - Bishop's Stortford College, Maze Green Road, Bishop's Stortford.
 - Northgate Primary School, Hadham Road, Bishop's Stortford.
- 6.134 A beneficial impact of 6dB is predicted at Little Hadham Primary School. The predicted noise levels at the other two receptors are below the screening criteria for this type of receptor.
- 6.135 Albury Parish Council has stated that additional noise barriers over the River Ash were originally requested by that council to assist in reducing noise to the parish of Albury. The parish council is of the opinion that road noise is not adequately mitigated against and that the effect of additional noise generated by the road on the parish will be significant, particularly where the road crosses the River Ash embankment. However, as described above, this is not borne out by the data with the noise contours produced within the ES showing the predominant noise to be contained generally within the corridor of the proposed bypass.
- 6.136 Finally, it is important to note that East Herts District Council's response has indicated that its Environmental Health section has considered the overall impacts of the bypass. As such, it has no objections and considers that the scheme will result in improved air quality within Little Hadham.

Impact on the historic environment

- 6.137 The Environmental Statement that accompanies the planning application lists the designated and non-designated heritage assets that are within the vicinity of the proposed scheme, together with a consideration of the likely significance of effect that the scheme will have on each of them.
- 6.138 Paragraph 132 of the NPPF states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. It is

considered that the more important the asset, the greater the weight that should be attached to its protection. The NPPF continues by saying that significance can be harmed or lost through alteration or destruction of the designated asset or by development within its setting and, as heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Where there is substantial harm to a grade II listed building, park or garden, the justification should be exceptional. Where more important assets are substantially harmed, such as grade I and II* listed buildings and scheduled monuments, then the justification has to be wholly exceptional.

6.139 Paragraph 134 of the NPPF continues by stating that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimal use.

6.140 The Environmental Statement lists 117 listed buildings within the vicinity of the proposed development, with one of these being Grade I, and seven being Grade II*. Historic England was consulted on the planning application and commented on a small number of designated heritage assets, raising issues about the impact of the scheme on some of these. The assets in question are as follows:

- the scheduled monument at Mill Mound;
- the grade I listed building of the Parish Church of St Cecilia in Church End;
- the grade II* listed buildings at Hadham Hall and the Gatehouse Range 60 metres west of Hadham Hall; and
- the Little Hadham Conservation Area and a number of grade II listed buildings within this.

6.141 The NPPF defines 'setting' as the surroundings in which a heritage asset is experienced and impact on significance can occur through a change in the setting. Historic England is of the opinion that the intrusion of the bypass within the rural landscape, with its increased urbanisation, will impact on setting, with visual, audio and odours from the bypass likely to have an adverse impact.

6.142 There is one scheduled monument within one kilometre of the proposed scheme being that at Mill Mound, consisting of a moated mound presently surrounded by mature vegetation. The ES describes this as a former mill mound, although there is uncertainty over its original use. It is located in a rural and relatively quiet setting to the north of Hadham Hall and is adjacent to the Hertfordshire Way; a footpath/bridleway that, in this location, runs between Hadham Hall to the south and Upwick Green to the north. The scheduled monument lies approximately 40 metres to the south of the proposed bypass, which will be in a cutting in this location. Despite the cutting, it is clear that there will still be visual and audio impacts upon the setting of the scheduled monument, although these will be lessened due to the

existing mature planting around Mill Mound together with proposed additional roadside planting alongside the bypass.

- 6.143 The ES concludes that there will be a moderate adverse effect on setting, which it considers to be significant, but not to the extent that there will be substantial harm, as set out within paragraph 132 of the NPPF. Historic England believes that the harm may be greater than this, although it welcomes the additional roadside planting as a means of ameliorating the overall impact of the development. However, the existence of the Hertfordshire Way means that this right of way will need to cross the bypass by way of a new footbridge. Historic England queries whether this can be moved further away from Mill Mound, but it is considered that this is impractical as it would require a considerable re-alignment of the footpath in this location. The bypass would be in a relatively deep cutting in this location, being in excess of 5 metres below existing ground levels. Together with the roadside planting, this should ensure that the bypass is obscured from view when looked at from the scheduled monument. It is clear that noise impacts will have an adverse impact on the setting of the monument, as will the introduction of a footbridge – which should be the only element that is visible from Mill Mound itself – but the bridge itself can be designed so that it is sympathetic to its surroundings and the setting of the scheduled monument. The full details of the design can be required as a pre-commencement condition.
- 6.144 Although the noise impacts will adversely affect the setting of the scheduled monument, it is considered that the Environmental Statement accurately defines this as being a moderate impact and not a substantial one. Indeed, Historic England did not go so far as to say that the effect would be substantial. In accordance with paragraph 134 of the NPPF, therefore, where there is less than substantial harm to a heritage asset, the harm should be weighed against the public benefits. Likewise, there must be clear and convincing justification for the harm, as outlined in paragraph 132 of the NPPF. The benefits to the wider public of the proposed bypass and its associated flood alleviation scheme have already been described at length within this report and it is concluded that these clearly outweigh the harm to the heritage asset at Mill Mound. Likewise, the report has already rehearsed the reasons for the route of the proposed bypass, being the best and most deliverable option that is available. Consequently, it is considered that there is a clear and convincing justification for the road scheme in this location.
- 6.145 The grade I listed building of the Parish Church of St Cecilia is located in the small hamlet of Church End, located to the east of Little Hadham and accessed off the existing A120. The hamlet and church will ultimately fall within the arc of the bypass. The church itself is located approximately 150 metres north of the existing A120, and is relatively well screened from the existing road. The Environmental Statement concludes that the bypass will result in a slight beneficial significance of

effect on the church. This is on the basis that, although the bypass will be visible from the church to its north, which would detract from its rural landscape setting, there will be a higher beneficial impact due to the reduction in traffic on the existing road. Historic England agrees that this latter point will provide some benefit, but that this is minimal and outweighed by the overall impact of the scheme. Historic England's approach and conclusions are considered reasonable in this respect as the bypass will introduce a brand new element into the landscape without the wholesale removal of the existing situation. However, it is considered that the overall impact of the proposed development on the church is only slightly detrimental. In addition, as before, the public benefits clearly outweigh any harm that arises, and there is clear and convincing justification for the bypass. Considerable importance and weight have been given to the desirability of preserving the setting of these heritage assets, and it is concluded that the proposed development does not conflict with paragraphs 132 and 134 in this respect.

- 6.146 Similarly, the impact of the proposed development on the grade II* listed buildings of Hadham Hall and the Gatehouse Range at Hadham Hall is considered within the Environmental Statement as having a slight beneficial significance of effect. This is for the very same reasons as for the Parish Church of St Cecelia. In this instance, both buildings again fall within the arc of the new bypass, but they are more distant from the existing A120, being approximately 300 metres away and well screened from the existing road. Therefore, Historic England takes a similar stance as it did with the church, concluding that there is a slight detrimental effect. Again, this is a reasonable approach but, as before, there is a clear and convincing justification for the development, with the public benefits of the new road clearly outweighing any harm with regard to these listed buildings.
- 6.147 Finally, in respect of the Little Hadham Conservation Area, the Environmental Statement concludes that there will be a moderate beneficial effect on the setting due to the removal of traffic from here. In addition, a number of grade II listed buildings have their primary frontages onto the main road in the centre of Little Hadham, particularly congregated around the signalised junction. The removal of traffic and its associated congestion from here will undoubtedly offer significant overall benefits. The Environmental Statement acknowledges that the bypass will be visible from the Conservation Area to the north east of the village but that this visual impact is clearly outweighed by the removal of traffic. Historic England agrees with this position.
- 6.148 In addition to these considerations, the Hertfordshire Gardens Trust originally objected to the proposed development. This was based on the significance of the heritage asset of Hadham Hall and historic landscape, with the Trust considering that the importance of the views from Hadham Hall towards Bloodhounds and High Woods is a key component in the historic significance of the landscape. The objection

was centred upon the proposed Hadham Park Bridge to the east of the bypass, with the Trust being of the view that this would cause significant damage to this view and thus the significance of Hadham Hall site. Although the Trust was of the view that the bypass in itself would adversely affect the setting of Hadham Hall due to noise, light pollution and visual intrusion from bunds and other bridges, it was the proposed Hadham Park Bridge that was the reason for the Trust's objection.

- 6.149 The Trust recommended that the Hadham Park Bridge be deleted from the design and replaced with an underpass, which it considered to overcome their objections, being more respectful to the setting of Hadham Hall. The scheme has subsequently been redesigned, primarily for ecological reasons, but with an underpass now being provided as a crossing point of the bypass. Although the Trust has not commented further on the redesigned proposals, it is considered that the construction of the underpass instead of the bridge overcomes the Trust's original objection.

Archaeology

- 6.150 In respect of the impact of the development on archaeological remains, a geophysical survey of the route of the proposed bypass was carried out in 2014. This identified a limited number of probable archaeological features within the road corridor. A programme of trial trenching was subsequently agreed, although this had not been carried out at the time that the planning application was originally submitted. However, trial trenching subsequently took place in September 2016 and, as confirmed by the council's Historic Environment Adviser, "although the trenching comprised only a very low percentage sample of the route, it did identify three foci of later prehistoric and Roman settlement activity, including two enclosures. Two further sites identified probably represent later prehistoric clay extraction pits."
- 6.151 Historic Environment states that these results "confirm that an appropriate programme of detailed field evaluation of the road corridor and associated sites should be undertaken well prior to road construction, in order that any archaeological remains that might be a significant constraint on the project can be identified at an early stage. The results can also inform the programme of archaeological mitigation that will be required prior to, and potentially during, road construction."
- 6.152 Historic Environment therefore recommends the imposition of conditions setting out the following:
- a programme of further detailed field investigations;
 - appropriate mitigation measures as a result of these investigations, which may include (a) the preservation of remains in situ; (b) the excavation of any remains before the development commences; (c) archaeological monitoring and

recording of the ground works; (d) analysis of the results of the archaeological work; and (e) any other provisions as necessary.

- the placement of a groundworks condition to ensure that a detailed methodology is agreed in order to mitigate the impact of the development.

Impact on the network of rights of way

- 6.153 There are a number of public rights of way within the vicinity of the proposed development, and a desk-based study has been carried out to existing crossing points on the A120, and potential crossing points of the proposed route. The construction of the bypass will ultimately impact public footpaths at six locations along the proposed route. Alternative provision will be provided where practicable, but temporary closures may be required where alternate routes may not be available during the construction process. The ES considers the overall impact of this, considering there to be a slight adverse effect from the temporary loss of diversion of public footpaths.
- 6.154 The bridleway running north from Hadham Hall, consisting of the Hertfordshire Way, will also require a temporary diversion and possible temporary closure as a result of the need to provide the bridge at the Mill Mound scheduled monument. The number of equestrians using the bridleway is not known but is believed to be low. The significance of this temporary effect is expected to have a slight adverse effect.
- 6.155 The Ramblers have responded to the consultation on the proposed development and made the following comments:
- The Ramblers are suggesting an improvement to the way Footpath 57 ties in with the existing network north of the bypass by allowing it to extend westwards to link with Footpath Albury 21.
 - Footpaths 57 and 58 are to be diverted to cross the new bypass either by way of a pedestrian refuge or, during non-flood conditions, via the flood defence/spillway underneath the new road. Due to increases in flood events, The Ramblers consider that the risk of flooding would be increased when considering the time the spillway will be out of action.
 - Footpath 34 forms part of the Hertfordshire Way. It is proposed to divert this so that it goes across the proposed Hadham Park roundabout, making use of a traffic island, although The Ramblers consider that an underpass should be provided to enable safer passage.
- 6.156 However, the county council's Rights of Way section has not objected to the proposed development and has indicated that it has been involved in the development of the scheme for some time. As such, the Rights of Way section is content with the proposed measures to accommodate changes to the public rights of way, either temporarily or on a permanent basis.

Impact on ecology and biodiversity

- 6.157 The ES describes the likely significant effects of the proposed scheme on nature conservation. The ecological baseline has been determined using information collated from desk studies as well as field surveys, predominantly carried out in 2014, of both habitats and species, which determined the ecological receptors for further assessment to identify adverse and beneficial effects. The ES describes all of these in great detail.
- 6.158 Paragraph 109 of the NPPF states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Nature Conservation Sites and Habitats

- 6.159 The ES sets out the designated nature conservation sites within the vicinity of the proposed development. There is one Site of Special Scientific Interest (SSSI), located two kilometres north of the proposed bypass at Patmore Heath. In its response, Natural England has stated that the scheme “will not damage or destroy the interest features for which the site has been notified. We therefore advise your authority that this SSSI does not represent a constraint in determining this application.”
- 6.160 In addition, there are 11 non-statutory designated sites, known as Wildlife Sites, within 500 metres of the proposed development. Natural England does not have enough information to comment on these but refers the LPA to other bodies, such as the Wildlife Trust, that would hold records for the sites in question. None of the Wildlife Sites are directly affected by the bypass, although Little Plantings Wood Wildlife Site and Ancient Woodland Inventory Site is located approximately 50 metres south of the scheme close to the proposed Hadham Park roundabout. The ES highlights that during the construction of the roundabout there would be a permanent adverse effect significant at the county level on this site, but the county council’s ecologist disagrees with this as none of the construction works would physically affect the site. Once the roundabout is operational, however, the council’s ecologist is of the view that the introduction of significant lighting in this area will have a highly significant impact on the Wildlife Site, a site used by Barbastelle bats. New planting is proposed to mitigate for this, but the council’s ecologist is keen to retain the existing habitat in this location without the need for additional planting – which may have negative impacts of its own – save for some planting at the northern edge of the site to mitigate against the artificial lighting and assisting the bats with safe crossing of the A120 in this location.

6.161 In addition to the 2014 surveys that were undertaken, a further Phase 1 Habitat Survey was carried out in July 2016, which did not identify any major changes over the course of the preceding two years. The county council's ecologist considers that the two surveys are more than adequate to assess the area in question. The Phase 1 survey recorded land within a 500m buffer of the road, with the council's ecologist concluding that "the majority of the land affected by the road proposals is of limited ecological significance given it is dominated by intensive arable (95%), although some species interest in the general area is surprisingly high. The River Ash is degraded at this point of its course given the low and intermittent flows it now suffers from."

6.162 In its response, Natural England stressed that:

"The authority should consider securing such measures to enhance the biodiversity of the site from the applicant, if it is minded to grant permission for this application. This is in accordance with Paragraph 118 of the NPPF. Additionally, we would draw your attention to Section 40 of the Natural Environment and Rural Communities Act (2006) which states that '*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*'. Section 40(3) of the same Act also states that '*conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat*'."

Hedgerows and trees

6.163 Hedgerows and trees will be lost as a result of the development proposal. A total length of 3.71 kilometres of hedgerow will be lost, of which 1.1 kilometres is considered 'important'.

6.164 In order to mitigate for these losses, it is proposed to carry out the following planting:

- **Roadside planting** of 9.1 km of species-rich hedgerow with trees, located at the boundaries of the proposed scheme.
- **Non roadside planting** of 3.7 km new hedgerow or enhancement of 7.4 km of hedgerow, or a combination of the two. This will be located at least 25m from the proposed scheme.

6.165 The proposed roadside and non-roadside planting is a reasonable response to the loss of existing flora within the vicinity of the proposed scheme. The details are, at present, relatively vague, especially in relation to what exactly will be provided. However, there is a firm commitment for this planting to take place and this can be secured by way of a planning condition.

Species

- 6.166 When the planning application was originally submitted, objections were raised by the Hertfordshire & Middlesex Wildlife Trust as well as the Hertfordshire Bat Group. The objections were focused on what was regarded as being a “lack of appropriate survey, quantification of impact and mitigation measures put forward regarding barbastelle bats.” This was on the basis that a population of barbastelles at Bloodhounds Wood to the north east of the proposed bypass – being the only confirmed maternity population within the county – would be adversely impacted through:
- Severance of flight lines.
 - Lighting at the main existing crossing point.
 - Increased traffic disturbance brought closer to sensitive roosting areas.
- 6.167 As a consequence, the Hertfordshire & Middlesex Wildlife Trust as well as the Hertfordshire Bat Group requested that further survey work be carried out to determine the behaviour and range of the barbastelles, with further mitigation being required based on the findings on the survey work. In addition, these groups wanted to see a monitoring regime for the bats be taken into the future, together with a habitat enhancement fund to create net gains in the population of barbastelles.
- 6.168 Consequently, further extensive survey work was conducted on behalf of the applicants during the summer of 2016. The subsequent survey work has been assessed by the Wildlife Trust, which is content with its scope and conclusions. The surveys allowed the applicants to identify the range of the barbastelles and the manner in which they forage, showing their flight lines and the main ways in which they cross the existing A120. The principal conclusion of this was for the need for an improved crossing point for bats over the proposed bypass to the west of Bloodhounds Wood. This takes the form of an underpass, replacing the previously intended agricultural bridge at Hadham Park. The underpass will be 5 metres tall and 7 metres in width, thus allowing access by agricultural vehicles. This does not result in any realignment of the route of the bypass. Little Hadham Bridleway 36, which was originally intended to cross the proposed bridge, will now be diverted via the underpass.
- 6.169 The surveys conducted in 2016 also highlighted that barbastelles used the woodlands to the west of the proposed scheme, both north and south of the existing A120, as important foraging areas. There is an identified impact on these woodlands from the scheme, therefore additional planting has been identified to mitigate the impact on the bats. A corridor of additional planting is proposed to link the woodlands north of the existing A120 with an existing underpass – which already provides an important crossing point for barbastelles – to the east of the proposed Hadham Park roundabout. Further planting is proposed to the south of the A120 in this location, and the details and

management of all mitigation planting can be required by way of an appropriate condition. The applicants originally proposed to plant an area of land to the south of the existing A120 adjacent to Little Plantings Wood as a means of mitigation, but the Wildlife Trust and the landowner have subsequently raised concerns about the need for this. The county council's ecologist has also stated that the present woodland pasture at this location is suitable for foraging by bats and that he would prefer to see this retained, subject to additional planting along the northern boundary of the land to screen the Hadham Park roundabout, and the applicants have subsequently indicated that they are content to proceed on this basis, thus satisfying the landowner and the Wildlife Trust. The lighting of the Hadham Park roundabout will therefore be vital to ensuring that the impact on barbastelles is limited, and again this can be agreed by way of the imposition of an appropriate condition.

- 6.170 The Wildlife Trust was generally satisfied with the proposed mitigation, although raised concerns about some of the impacts and the ability for mitigation to properly address impacts on barbastelles. These items include further details on lighting, new planting, habitat enhancement, management of construction impacts, post-development habitat management and monitoring of the effectiveness of mitigation. This has since been discussed with the Wildlife Trust, however, and its concerns can be addressed through the imposition of planning conditions, with these being worded in line with the British Standard 'Biodiversity – Code of practice for planning and development' (BS 42020:2013). In other words, the conditions will be enforceable, precise and reasonable.
- 6.171 Regulation 9(5) of the Habitats Regulations requires that, when exercising any of its functions, the local planning authority must have regard to the requirements of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive"), so far as they may be affected by the exercise of those functions.
- 6.172 The Habitats Directive is aimed at the preservation, protection and improvement of the quality of the environment in the European Community. This particularly includes the conservation of both the natural habitats of wild flora and fauna and the flora and fauna themselves. Such conservation is to be achieved by taking measures to maintain the population of protected species at a 'favourable conservation status'. The European Commission, in its guidance document to the Habitats Directive, has summarized 'favourable conservation status' as "in simple terms....a situation where a habitat type or species is doing sufficiently well in terms of quality and quantity and has good prospects of doing so in the future".
- 6.173 The requirements of the Habitats Directive include a strict system of protection for European protected species, which prohibits the

deliberate killing, catching or disturbing of species, the taking of eggs and damage to or destruction of their breeding sites or resting places. Derogations from this strict protection are allowed only in certain limited circumstances and subject to certain tests being met. In England, these derogations take the form of licences that may be granted by Natural England.

- 6.174 It is for the local planning authority to establish whether the proposed development is likely to offend against Article 12(1) of the Habitats Directive. If this is the case then the planning authority should consider whether the proposal would be likely to be granted a licence. Natural England is unable to provide advice on individual cases until licence applications are received since these applications generally involve a much greater level of detail than is provided in planning applications.
- 6.175 All British bats and their roosts are afforded protection by the Habitats Directive. As the proposed works will have an impact upon barbastelle bats, there will be a requirement for the developers to obtain a European Protected Species licence.
- 6.176 In addition to the barbastelles, the proposed works will also affect great crested newts through the removal of hedgerows between three breeding ponds. Again, great crested newts are afforded protection by the Habitats Directive. The proposed scheme has been identified as giving the potential to cause local extinctions, which is considered to be significant at the district level. Consequently, a European Protected Species Licence will also be required in respect of great crested newts. Furthermore, although mitigation is proposed in the form of new ponds and replacement/enhanced hedgerows, a mitigation strategy will be required by way of the imposition of a suitable condition, as suggested by the county council's ecologist.
- 6.177 In these circumstances, the county council's ecologist is generally satisfied with the scheme of mitigation for both barbastelles and great crested newts, recommending conditions be attached to the planning permission that safeguard these species. His advice is that:
- “Suitable mitigation and compensation has been proposed for bats and great crested newts will be outlined in more detail as a Condition. This seeks to avoid any significant adverse effect upon EPS and I consider the proposals will achieve this in a reasonable and proportionate manner. This will also enable the three Habitat regulations tests to be satisfied as outlined within the planning statement. On this basis I also have no reason to consider that appropriate EPS licences would not be issued for the works.”
- 6.178 As referred to above, Test 1 of the three tests set out in Regulation 53 of the Habitat Directive is within Regulation 53(2)(e) and refers to “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature

and beneficial consequences of primary importance for the environment”.

- 6.179 As explained elsewhere within this report, there is a clear need in the public interest of the proposed bypass and flood alleviation scheme, as it provides social and economic, benefits. These are, in brief, the reduction in congestion and reduction in journey times along the A120 corridor, together with the improvements to the amenity and environment of Little Hadham, together with the significant reduction of flood risk to a large number of properties within the village. However, from an ecological perspective alone, the development is not “of primary importance for the environment”. Nevertheless, it can be concluded that there is an overriding public interest in the proposed development, including those of a social or economic nature. In addition, although there will be a significant impact on the environment, proposed mitigation should enable this to be addressed. As such, it is considered that Test 1 within Regulation 53 of the Habitat Directive is met.
- 6.180 Test 2, within Regulation 53(9)(a), requires that “that there is no satisfactory alternative”. In this instance, all mitigation measures have been analysed with the best options identified, and the mitigation proposals will be safeguarded by way of condition. It has been demonstrated that there is no realistic and achievable alternative to the route of the proposed bypass and that all other options have been considered. Therefore, Test 2 within Regulation 53 of the Habitat Directive is also met.
- 6.181 Finally, Test 3, within Regulation 53(9)(b) requires “that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”. It is considered that, whilst there may be some impact on local populations of both barbastelles and great crested newts, the overall populations will be maintained. Furthermore, there is a commitment to carry out continued monitoring of both species into the future, which will be required by way of appropriate conditions, which will enable remedial action to be taken should it be found that there is a greater impact on the species than originally envisaged.
- 6.182 Consequently, it is considered that the likely impacts on barbastelles and great crested newts is acceptable provided that the implementation of the mitigation and enhancement measures for both species are secured by a planning condition. All three tests of the Habitats Directive are considered to have been met.

Other matters

- 6.183 In respect of the design of the proposed underpass at Hadham Park, the landowner has informed the local planning authority that this is not suitable for purpose as it is too narrow to allow agricultural machinery to

pass through without these being dismantled. Furthermore, he is concerned that there will be glare from the sun as the underpass is orientated in an east-west direction, giving potential risks to users of the bridleway that will also use the underpass.

- 6.184 The bypass will travel through the landowner's agricultural fields in this location, and any severance of them would be a material planning consideration. The applicants were advised of these concerns and have subsequently responded. They advise that they have discussed the issue with the landowner and that the height of 5 metres has been agreed as being adequate for general operational access for the majority of farm equipment. In addition, although the landowner has referred to the underpass as being 5 metres in width, in reality it is 7 metres wide. The applicants point out that this is wider than that of a typical public highway carriageway, so that all vehicles that would have used the public highway to get to the fields in question would be able to use the underpass unencumbered. Furthermore, agricultural experts have advised the Highways Authority that the majority of farm equipment will not require attachments to be partially removed or detached. Consequently, the size of the underpass is considered suitable so that there is no severance of the agricultural holding. Notwithstanding this, the applicants have confirmed that potential impacts and compensation are being discussed directly with the landowner to ensure that his needs are met.
- 6.185 With regards to sun glare, the applicants point out that the existing farm track also has an east-west orientation, and that this also forms part of the existing bridleway network and existing users will be aware of the use of this by farm vehicles. This situation will persist with the underpass, and the presence of noise from motorised vehicles will add to the warning for bridleway users. The orientation of the approach to the underpass is also considered appropriate, despite there being a 90 degree bend to the west of the underpass. Visibility splays and the need for vehicles to stop as they turn this corner will ensure that safety is not compromised.
- 6.186 In respect of the condition of the track and the need for hardsurfacing, the applicants have confirmed that they are in negotiation with the landowner regarding this. Irrespective of these negotiations, the detail of the underpass can be conditioned, ensuring that it offers sufficient access for the landowner.

7. Conclusion

- 7.1 The present A120 between Bishop's Stortford and Standon is subject to regular congestion and traffic delays as a result of the road layout and necessary signalised traffic junction in the centre of Little Hadham. A bypass is identified within a number of policy documents as offering the solution to this problem. In addition, 72 residential properties within Little Hadham are at continued risk of flooding, with flood water coming

from three sources: the River Ash, the Albury Tributary and the Lloyd Taylor Drain. The bypass will enable flood water to be held back behind artificial embankments that carry the bypass in respect of the first two sources, with a diversion being carried out to the drain, thereby minimising the risk of flooding.

- 7.2 The bypass would, however, result in impacts on other roads and traffic junctions along this stretch of the A120. In order to mitigate for this, there is a commitment from the Highway Authority to carry out continued monitoring into the future of the scheme, addressing the need for mitigation measures to be carried out – including the provision of a further local bypass to the village of Standon – as and when these measures are required.
- 7.3 The development runs through the Metropolitan Green Belt and the Rural Area Beyond the Green Belt. There will also be landscape and visual impacts of the development upon Landscape Character Areas, although these will be minimised through appropriate mitigation. In any event, the overriding benefits of the development clearly outweigh such designations. Very special circumstances exist that clearly outweigh the harm to the Green belt and any other harm.
- 7.4 In respect of residential amenity, there are overall benefits to air quality in the centre of Little Hadham due to the reduction in traffic. No other sensitive receptors have been identified as suffering significantly from any reduction in air quality. Similarly, in terms of noise, some communities may experience an increase in noise levels, but others will experience relatively large reductions in noise as a result of traffic moving on to the bypass.
- 7.5 In respect of the historic heritage, it is concluded that there is less than substantial harm to identified heritage assets within the vicinity of the scheme. Furthermore, the reduction in traffic within the centre of Little Hadham gives benefits to the wider setting of the Little Hadham Conservation Area as well as a number of listed buildings that front the existing A120. Archaeological impacts of the scheme can be addressed through the imposition of conditions seeking proper studies be carried out both prior to, and during, construction of the bypass.
- 7.6 Public rights of way are affected by the development, with temporary and permanent diversions proposed as part of the scheme and its construction. However, these are considered to be acceptable, having no detrimental impact on the use of these.
- 7.7 Finally, the scheme will have an impact on ecology and biodiversity, especially in relation to a colony of Barbastelle bats that are found close to the proposed bypass, as well as Great Crested Newts. However, both on-site and off-site mitigation addresses these concerns and, together with the imposition of suitable conditions that also require future monitoring, it is considered that the development is acceptable.

It is also considered that the three tests of the Habitats Directive are met in respect of these.

- 7.8 It is therefore recommended that planning permission be granted, and referral to the Secretary of State, subject to the imposition of the following conditions. This recommendation has been made with reference to all documents included with the planning application and with reference to the Environmental Statement.

Time Limit

1. The development to which this planning permission relates shall be begun no later than three years from the date of this permission.

Reason: To comply with the requirements of Section 91 of the Town and Country Act 1990 (as amended).

Approved Plans

2. The development hereby permitted shall be carried out in accordance with the following approved plans and documents unless otherwise agreed in writing:
 - Planning Statement – 235086-ARP-XX-XX-RP-YP-00001
November 2015
 - Planning Addendum – 235086-ARP-XX-XX-RP-YP-00004
October 2016
 - Environmental Statement together with accompanying documents and plans – Issue November 2015
 - Environmental Statement Addendum together with accompanying documents and plans – Issue 1 October 2016
 - Statement of Consultation – 235086-ARP-XX-XX-RP-YP-00002
November 2015
 - Transport Assessment – TA001 Issue 17th November 2015
 - Flood Risk Assessment – Issue PO3 11th November 2015
 - Landscape Strategy – November 2015
 - Arboricultural Development Report – dated 15th July 2015
 - Location Plan (Overview) – 235086-ARP-ML-ZZ-DR-YP-50100
 - Location Plan (Sheet 1) – 235086-ARP-ML-ZZ-DR-YP-50101
 - Location Plan (Sheet 2) – 235086-ARP-ML-ZZ-DR-YP-50102
 - Location Plan (Sheet 3) – 235086-ARP-ML-ZZ-DR-YP-50103
 - Site Plan – 235086-ARP-ML-XX-DR-YP-50103
 - Full Scheme with Flood Extents – 235086-ARP-ML-XX-DR-YP-50104
 - Topography Plan – 235086-ARP-ML-XX-DR-YP-50102
 - General Arrangement (Sheet 1) – 235086-ARP-ML-XX-DR-CH-50101
 - General Arrangement (Sheet 2) – 235086-ARP-ML-XX-DR-CH-50102

- General Arrangement (Sheet 3) – 235086-ARP-ML-XX-DR-CH-50103
- General Arrangement (Sheet 4) – 235086-ARP-ML-XX-DR-CH-50104
- General Arrangement (Sheet 5) – 235086-ARP-ML-XX-DR-CH-50105
- General Arrangement (Sheet 6) – 235086-ARP-ML-XX-DR-CH-50106
- General Arrangement (Sheet 7) – 235086-ARP-ML-XX-DR-CH-50107
- Preliminary Drainage Layout (Sheet 1) – 235086-ARP-ML-XX-DR-CD-00101
- Preliminary Drainage Layout (Sheet 2) – 235086-ARP-ML-XX-DR-CD-00102
- Preliminary Drainage Layout (Sheet 3) – 235086-ARP-ML-XX-DR-CD-00103
- Preliminary Drainage Layout (Sheet 4) – 235086-ARP-ML-XX-DR-CD-50104
- Preliminary Drainage Layout (Sheet 5) – 235086-ARP-ML-XX-DR-CD-50105
- Overland Flow Catchment Area Plan – 235086-ARP-ZZ-ZZ-SK-CD-00001
- Highway Surface Water Management Strategy Catchments – 235086-ARP-ZZ-XX-SK-CD-50002
- Balancing Pond Typical Layout and Cross Section – 235086-ARP-XX-XX-DR-CD-00301
- Mainline Plan and Profile (Sheet 1) – 235086-ARP-ML-XX-DR-CH-00201
- Mainline Plan and Profile (Sheet 2) – 235086-ARP-ML-XX-DR-CH-50204
- Mainline Plan and Profile (Sheet 3) – 235086-ARP-ML-XX-DR-CH-50203
- Flood Alleviation Cross Sections Albury Tributary (Sheet 1) – 235086-ARP-ML-08-DR-CH-00301
- Flood Alleviation Cross Sections Albury Tributary (Sheet 2) – 235086-ARP-ML-08-DR-CH-00302
- Albury Tributary Flood Storage Area General Arrangement – 235086-ARP-AL-08-DR-CH-00101
- Typical Cross Sections Mainline (Sheet 1) – 235086-ARP-ML-XX-DR-CH-00301
- Typical Cross Sections Mainline (Sheet 2) – 235086-ARP-ML-XX-DR-CH-00302
- Typical Cross Sections Mainline (Sheet 3) – 235086-ARP-ML-XX-DR-CH-00303
- Lloyd Taylor Drain Proposed Diversion General Arrangement – 235086-ARP-AL-07-DR-CH-00101
- Lloyd Taylor Drain Proposed Diversion Cross Sections – 235086-ARP-AL-07-DR-CH-00301

- Flood Alleviation Cross Sections River Ash (Sheet 1) – 235086-ARP-ML-06-DR-CH-00301
- Flood Alleviation Cross Sections River Ash (Sheet 2) – 235086-ARP-ML-06-DR-CH-00302
- River Ash Flood Storage Area General Arrangement – 235086-ARP-ML-06-DR-CH-00101
- Hadham Park Underpass Options Plan & Profile – 235086-ARP-AL-XX-SK-CH-00003
- Changes to the Application Boundary (Indicative only) – 235085-ARP-ML-ZZ-DR-YP-00104

Reason: For the avoidance of doubt.

Construction

3. No development shall commence until a phasing programme has been submitted to, and approved in writing by, the Local Planning Authority. The provision of all elements in a phasing programme shall be carried out in accordance with the approved phasing programme, and the time triggers specified in it, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To provide clarification on how the development will be delivered, to assist the determination of reserved matters and to ensure that the necessary infrastructure provision and environmental mitigation is provided in time to address the impact of the development.

4. Prior to the commencement of each phase of the scheme in the phasing plan, detailed plans of all proposed highway infrastructure or modifications to the existing highway infrastructure shall be submitted to, and approved in writing by, the Local Planning Authority. This must include all works external to the site, detailed road layouts and the extent of proposed road adoption and drainage provision.

Reason: To ensure that all highway works are built to Highway Authority standards and requirements.

5. Prior to the commencement of the development, a Construction Traffic Management Plan shall be submitted to, and approved in writing by, the Local Planning Authority. The Construction Traffic Management Plan shall contain:
 - The phasing of the development of the site, including all highway works, and the programme of works on the site
 - Location and details of wheel washing facilities and other measures to ensure control of dirt and dust on the public highway
 - Methods for accessing the site, including construction vehicle numbers, sizes and routeing

- Associated construction vehicle parking and turning areas, and storage of materials clear of the public highway
- Temporary warning signage on any parts of the existing public highway where its users may be affected by the works
- Details of temporary or permanent road closures and traffic management measures
- Details of consultation with local businesses and neighbours.

The construction of the development shall only be carried out in accordance with the approved Plan. All temporary traffic management measures shall be agreed in writing by the Local Planning Authority.

Reason: To minimise impact of the construction process on the local environment and local highway network.

6. Prior to the commencement of development, a detailed Construction Environmental Management Plan (CEMP) shall be submitted to, and approved in writing by, the Local Planning Authority, including information as outlined in the draft CEMP submitted with the Environmental Statement as part of the planning application. The CEMP shall include details of hours of construction and the means by which measures will be taken to minimise noise and vibration to residential properties within the vicinity of the construction works.

Reason: To minimise the impacts of construction works and to safeguard the amenities of neighbouring properties and the surrounding area.

7. No development shall take place (including demolition, ground works, vegetation clearance) until a construction environmental management plan for biodiversity (CEMP: Biodiversity) has been submitted to, and approved in writing, by the Local Planning Authority. The CEMP (Biodiversity) shall include the following:
 - a) Risk assessment of potentially damaging construction activities.
 - b) Identification of “biodiversity protection zones”.
 - c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
 - d) The location and timing of sensitive works to avoid harm to biodiversity features.
 - e) The times during construction when specialist ecologists need to be present on site to oversee works.
 - f) Responsible persons and lines of communication.
 - g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person.
 - h) Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the local planning authority.

Reason: To ensure that biodiversity is adequately protected during the construction process of the development.

8. No removal of hedgerows, trees or shrubs shall take place between 1st March and 31st August inclusive, unless a competent ecologist has undertaken a careful, detailed check of vegetation for active birds' nests immediately before the vegetation is cleared and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site. Any such written confirmation should be submitted to the Local Planning Authority.

Reason: To ensure that the construction of the scheme does not adversely impact upon nesting birds.

9. Prior to the commencement of development, a detailed Materials Management Plan (MMP) and a Soils Resources Management Plan (SRMP) shall be submitted to, and approved in writing by, the Local Planning Authority. The Defra guidance Construction Code of Practice for Sustainable Use of Soils on Construction Sites shall be adopted and followed.

Reason: To ensure best practice is followed in respect of the management of excavated soils and materials.

10. Prior to the commencement of the development, details of the external lighting scheme to be used during the construction of the development shall be submitted to, and approved in writing by, the Local Planning Authority. These should include details of all night-time lighting required to be provided during the construction phase, particularly at the satellite compounds. All night-time lighting should be minimised to only illuminate temporary work areas (including compounds), whilst remaining at safe levels to ensure safe working together with adequate security of compounds.

Reason: In the interests of security and safe working, whilst ensuring that the impact on amenity is minimised.

Flooding and Water Environment

11. The development permitted by this planning permission shall be carried out in accordance with the approved drainage strategy carried out by Arup, dated 11th of November 2015, project number 235086-ARP-ZZ-ZZ-RP-CD-00001 and the following mitigation measures detailed within the drainage strategy:

- (i) Limiting the surface water run-off generated by the 1 in 100 year + climate change critical storm so that it will not exceed following rates:
 - a. Catchment 1: 11.6 l/s
 - b. Catchment 2a: 2.43 l/s
 - c. Catchment 2b: 0.69 l/s
 - d. Catchment 3: 7.62 l/s
 - e. Catchment 4a: 4.35 l/s
 - f. Catchment 4b: 11.43 l/s
 - g. Catchment 5: 4.16 l/s
 - h. Catchment 6: 6.39 l/s
 - i. Catchment 7: 9.6 l/s
- (ii) Discharge into the following watercourses:
 - j. Catchments 1, 2a and 2b: Albury tributaries
 - k. Catchments 3, 4a and 4b: River Ash
 - l. Catchments 5 and 6: Cradle End Brook
 - m. Catchment 7: Bury Green Brook
- (iii) Undertake the drainage to include swales, ponds and filter drains as indicated in Appendix E of the drainage strategy.
- (iv) Providing a total attenuation volume of 4402 to ensure no increase in surface water run-off volumes for all rainfall events up to and including the 1 in 100 year + climate change event. The minimum attenuation volume to be provided in each catchment as follows:
 - a. Catchment 1: 881 m³
 - b. Catchment 2a: 183 m³
 - c. Catchment 2b: 50 m³
 - d. Catchment 3: 580 m³
 - e. Catchment 4a: 326 m³
 - f. Catchment 4b: 869 m³

g. Catchment 5: 314 m³

h. Catchment 6: 484 m³

i. Catchment 7: 797 m³

The mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reason: To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.

- 12.** The development is to be undertaken in accordance with the Flood Risk Assessment.

Reason: To manage flood risk and the water environment.

- 13.** Prior to the commencement of the development, a detailed surface water management plan shall be submitted to, and approved by, the Local Planning Authority. This should include
- Details of temporary settlement ponds and cut-off ditches to be designed into the works and installed before the bulk earthworks are undertaken
 - Details of permanent drainage attenuation ponds to be installed early and used in the construction process.

Reason: To manage flood risk and the water environment.

- 14.** The construction works and operation of the proposed development should be carried out in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the groundwater pollution risk. If any pollution is found at the sites then the appropriate monitoring and remediation methods will need to be undertaken.

Reason: To mitigate against groundwater pollution risks.

- 15.** The development hereby permitted shall not be commenced until such time as a scheme for the detailed design of the impounding structures and controls including debris screens where appropriate, on the River Ash and Albury Tributary has been submitted to, and approved in writing by, the Local Planning Authority. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority

Reason: To ensure the structural integrity of the proposed flood defences thereby reducing the risk of flooding.

16. The development hereby permitted shall not be commenced until such time as a scheme to provide adequate floodplain storage compensation at the Cradle End Brook crossing has been submitted to, and approved in writing by, the Local Planning Authority. The scheme shall be fully implemented and subsequently maintained, in accordance with the timing/phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To prevent flooding by avoiding the displacement of flood water elsewhere.

17. Any facilities for the storage of oils, fuels or chemicals shall be provided with secondary containment that is impermeable to both the oil, fuel or chemical and water, for example a bund, details of which shall be submitted to the Local Planning Authority for approval. The minimum volume of the secondary containment should be at least equivalent to the capacity of the tank plus 10%. If there is more than one tank in the secondary containment the capacity of the containment should be at least the capacity of the largest tank plus 10% or 25% of the total tank capacity, whichever is greatest. All fill points, vents, gauges and sight gauge must be located within the secondary containment. The secondary containment shall have no opening used to drain the system. Associated above ground pipework should be protected from accidental damage. Below ground pipework should have no mechanical joints, except at inspection hatches and either leak detection equipment installed or regular leak checks. All fill points and tank vent pipe outlets should be detailed to discharge downwards into the bund.

Reason: To protect groundwater. Any work must be done in line with the Environment Agency's Groundwater Protection 3 Position Statement on Storage of Pollutants, particularly statement D1 "Principles of storage and their transmission".

18. A scheme for surface water disposal shall be submitted to, and approved by, the Local Planning Authority. The scheme shall be implemented as approved. Infiltration systems should only be used where it can be demonstrated that they will not pose a risk to groundwater quality.

Reason: To protect groundwater. This must be done in line with the Environment Agency's Groundwater Protection Position Statements "G13: Sustainable drainage system" and "C4: Transport Developments". This is ensure that SuDs are designed and

maintained to current good practice standards, and that the point of discharge is located outside of Source Protection Zone 1 and 2. Where it is not possible to meet these discharge conditions, the Environment Agency will require a risk assessment in order to demonstrate that groundwater pollution will not occur.

19. No infiltration of surface water drainage into the ground along the length of the bypass is permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approved details.

Reason: To protect groundwater. Infiltration SuDs/soakaways through contaminated soils are unacceptable as contaminants can remobilise and cause groundwater pollution. This is particularly important in locations overlying principal aquifers and within Source Protection Zones 1 and 2.

20. The development hereby permitted shall not be commenced until such time as a scheme to secure the protection of licensed and unlicensed sources has been submitted to, and approved in writing by, the Local Planning Authority. Any such scheme shall be supported by detailed information, include a maintenance programme, and establish current and future ownership of the facilities to be provided. The scheme shall be fully implemented and subsequently maintained, in accordance with the scheme, or any changes as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

21. Piling or any other foundation designs using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

Reason: To protect groundwater. Some piling techniques can cause preferential pathways for contaminants to migrate to groundwater and cause pollution. A piling risk assessment should be submitted with consideration of the EA guidance <http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/scho0202bisw-e-e.pdf>

22. The scheme must be completed in accordance with the mitigation measures outlined in the Water Framework Directive assessment document submitted as part of the planning application, titled “*Assessment of Compliance with WFD Objectives for the Little Hadham A120 Bypass and Flood Alleviation Scheme*”, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To compensate for any biodiversity lost as a result of the scheme. The mitigation outlined will ensure that the work is compliant with the Water Framework Directive.

23. There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this, the specifications, location and direction of artificial lights should be such that the lighting levels crossing the channel and within 8 metres of the top of bank of the watercourse are maintained at background levels. There shall be no light spill from artificial lighting into the area to be enhanced for wildlife.

Reason: To minimise light spill from the new development into the watercourse or adjacent river corridor habitat. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat, and in particular is inhibitive to bats utilising the river corridor.

Contamination

24. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted a remediation strategy to the Local Planning Authority detailing how this unsuspected contamination shall be dealt with. Written approval shall subsequently be obtained from the local planning authority. The remediation strategy shall be implemented as approved. On completion of any necessary remedial works, a Verification Report shall be written detailing the remediation that has taken place.

Reason: To protect human health during construction and to protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

Landscape

25. Prior to commencement of the development, a detailed landscape management plan, including details of native species mitigation

planting, maturing of vegetation, management responsibilities and maintenance schedules for all landscaped areas, shall be submitted to, and approved by, the Local Planning Authority. Proposed hedgerows will use native species consistent with existing hedgerows and standard trees in groups of 3, 5 and 7 mixed species at appropriate centres, groups to be at a variety of distances along the hedgerow between 8 metres and 20 metres. The hedgerows will provide new field boundaries along the route. All planting is to be of native species that are of local provenance and appropriate to the site, species and habitats in the area. Planting of semi-mature native tree species of local provenance of at least 3 metres in height will be provided on raised bunds in key locations to provide a hop-over to encourage bird and bat species to fly higher across the bypass, thereby reducing the risk of collisions and fatalities. The landscape management plan shall be carried out as approved.

Reason: To mitigate the impact of the development on visual receptors, to enhance visual integration within the landscape, to reduce the impact on ecology, and to comply with NPPF requirements for good design, conserving and enhancing the natural environment.

Lighting

- 26.** Prior to the use and operation of the bypass, details of the lighting to be used on the Tilekiln and Hadham Park roundabouts shall be submitted to, and approved by, the Local Planning Authority.

Reason: To ensure that the lighting is designed to minimise light pollution outside the extent of the road.

Highways

- 27.** The highway element of the development shall not be brought into operational use until the development has been fully constructed to the satisfaction of the Local Planning Authority.

Reason: To ensure that the completed scheme is not used until it has been formally approved.

- 28.** Within 12 months of the opening and operation of the bypass, the applicants shall carry out post-construction traffic monitoring. Associated studies shall be submitted to the Local Planning Authority in order to determine the extent of mitigation measures necessary on the existing route. Should it be determined that significant capacity issues have arisen, appropriate interim mitigation measures shall be carried out at appropriate locations within Standon within a timescale to be agreed by the Local Planning Authority.

Reason: To ensure that any significant adverse impacts of the bypass are managed through the carrying out of appropriate mitigation works.

- 29.** Deer fencing shall be provided along sections of the scheme to exclude fallow deer from entering the road corridor. The design and location of the deer fencing shall be submitted to, and approved by, the Local Planning Authority.

Reason: In the interests of highway safety and to ensure that the visual impact of the deer fencing is minimised.

- 30.** No development shall take place until the full details of the underpass at Hadham Park are submitted to, and approved in writing by, the Local Planning Authority, such details to include the means by which agricultural vehicles and machinery will be able to pass and repass through the underpass.

Reason: to ensure that there is no severance of the agricultural fields in this location.

Archaeology

- 31.** No demolition/development shall take place/commence until an Archaeological Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of archaeological significance and research questions; and:
1. The programme and methodology of site investigation
 2. The programme and methodology of site investigation and recording as suggested by the archaeological evaluation
 3. The programme for post investigation assessment
 4. Provision to be made for analysis of the site investigation and recording
 5. Provision to be made for publication and dissemination of the analysis and records of the site investigation
 6. Provision to be made for archive deposition of the analysis and records of the site investigation
 7. Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 32.** The development shall take place/commence in accordance with the programme of archaeological works set out in the Written Scheme of Investigation approved under condition 30.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 33.** The development shall not be occupied/used until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition 30 and the provision made for analysis and publication where appropriate.

Reason: To protect probable heritage assets of archaeological interest on the site.

- 34.** No development shall take place until the full details of the footbridge over the bypass at Mill Mound have been submitted to, and approved in writing by, the Local Planning Authority. These details shall include details of associated planting and landscaping that will minimise the impact of the footbridge on Mill Mound.

Reason: To ensure that the setting of the scheduled monument at Mill Mound is adequately protected.

Ecology

- 35.** The development hereby permitted shall not be commenced until such time as a biodiversity enhancement scheme has been submitted to, and approved in writing by, the Local Planning Authority. The enhancement scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason: To ensure the protection of wildlife and supporting habitat and secure opportunities for the enhancement of the nature conservation value of the site. This is in line with National Planning Policy Framework (NPPF) policy to provide a net gain in biodiversity.

- 36.** No development shall take place until a detailed method statement for removing or the long-term management/control of Japanese Knotweed (*Fallopia japonica*) on the site has been submitted to, and approved in writing by, the Local Planning Authority. The method statement shall include measures that will be used to prevent the spread of Japanese Knotweed (*Fallopia japonica*) during any operations e.g. mowing, strimming or soil movement. It shall also contain measures to ensure that any soils brought to the site are free of the seeds/root/stem of any invasive plant listed under the Wildlife and Countryside Act 1981, as amended. Development shall proceed in accordance with the approved method statement.

Reason: This condition is necessary to prevent the spread of Japanese Knotweed (*Fallopia japonica*) which is an invasive species. Without it, avoidable damage could be caused to the nature conservation value of the site contrary to national planning policy as set out in the National Planning Policy Framework paragraph 109, which requires the planning system to aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

37. No development shall take place until an ecological design strategy (EDS) addressing mitigation for impacts to barbastelle bat and other bat species (including lighting impacts), has been submitted to, and approved in writing, by the Local Planning Authority.

The EDS for barbastelle bat and other bat species shall include the following.

- a) Purpose and conservation objectives for the proposed works.
- b) Review of site potential and constraints, including identification of those areas/features on site that are particularly sensitive for barbastelle and other bat species and that are likely to cause disturbance in or around their breeding sites and resting places or along important routes used to access key areas of their territory.
- c) Detailed design(s) and/or working method(s) to achieve stated objectives, including how and where external lighting will be installed (through the provision of appropriate lighting contour plans and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their territory and having access to their breeding sites and resting places. If this cannot be achieved then the strategy shall include additional mitigation for lighting impacts, as outlined within the Environmental Statement.
- d) Extent and location/area of proposed works on appropriate scale maps and plans.
- e) Type and source of materials to be used where appropriate, e.g. native species of local provenance.
- f) Timetable for implementation demonstrating that works are aligned with the proposed phasing of development.
- g) Persons responsible for implementing the works.
- h) Details of initial aftercare and long-term maintenance.
- i) Details for monitoring and remedial measures.
- j) Details for disposal of any wastes arising from works.

The EDS shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter. All external lighting shall be installed in accordance with the specifications and locations set out in the strategy, and these shall be maintained thereafter in accordance with the strategy. Under no

circumstances should any other external lighting be installed without prior consent from the local planning authority.

Reason: To ensure that there is appropriate mitigation for all bat species.

- 38.** No development shall take place (including any demolition, ground works, site clearance) until a method statement for great crested newt mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:
- a) purpose and objectives for the proposed works;
 - b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for great crested newts.

- 39.** No development shall take place (including any demolition, ground works, site clearance) until a method statement for badger mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:
- a) purpose and objectives for the proposed works;
 - b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for badgers.

40. No development shall take place (including any demolition, ground works, site clearance) until a method statement for reptile mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;
- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
- c) extent and location of proposed works shown on appropriate scale maps and plans;
- d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
- e) persons responsible for implementing the works;
- f) initial aftercare and long-term maintenance (where relevant);
- g) disposal of any wastes arising from works.

The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for reptiles.

41. No development shall take place (including any demolition, ground works, site clearance) until a method statement for roman snail mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;
- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
- c) extent and location of proposed works shown on appropriate scale maps and plans;
- d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
- e) persons responsible for implementing the works;
- f) initial aftercare and long-term maintenance (where relevant);
- g) disposal of any wastes arising from works.

The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for roman snails.

42. No development shall take place (including any demolition, ground works, site clearance) until a method statement for barn owl mitigation has been submitted to, and approved in writing by, the Local Planning Authority. The content of the method statement shall include the:

- a) purpose and objectives for the proposed works;

- b) detailed design(s) and/or working method(s) necessary to achieve stated objectives (including, where relevant, type and source of materials to be used);
 - c) extent and location of proposed works shown on appropriate scale maps and plans;
 - d) timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction;
 - e) persons responsible for implementing the works;
 - f) initial aftercare and long-term maintenance (where relevant);
 - g) disposal of any wastes arising from works.
- The works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To ensure that there is appropriate mitigation for barn owls.

- 43.** No development shall take place until further supplementary ecological surveys for bats (to assess for new roosts in trees to be impacted), badger (to identify any new setts to be impacted) and great crested newt (to update the assessment of the population size to be impacted) have been undertaken to update the ecological mitigation requirements for these species. Any additional mitigation measures required should be specified and implemented through the method statements required through the other Conditions within this planning permission. The supplementary surveys shall be of an appropriate type for the above habitats and/or species and survey methods shall follow national good practice guidelines.

Reason: To ensure that there is appropriate mitigation for these species.

APPENDIX A

East Herts District Council

Original consultation response

I am writing to inform you that East Herts Council has resolved that Hertfordshire County Council be informed that East Herts Council:

- (A) supports the provision of the A120 Little Hadham Bypass and Flood Alleviation Scheme;
- (B) requests Hertfordshire County Council to bring forward design proposals for post-bypass traffic management measures and the environmental enhancement of Little Hadham at the earliest opportunity, to ensure that scheme implementation can occur as soon as possible after the new route becomes operational; and
- (C) supports Hertfordshire County Council's intentions to investigate options for the alignment of a bypass of Standon/Puckeridge and carry out consultation with residents in 2016.

The district council's report, is as follows:

1.0 Background

1.1 The concept of introducing a bypass for Little Hadham has long been supported by both Hertfordshire County Council (HCC) and East Herts Council. The proposal has been included in both the existing and previously adopted East Herts Local Plans and has been included in all three of HCC's Local Transport Plans.

1.2 After many years in drawing up proposals and options to provide a bypass for the village, a public consultation was carried out by HCC (supported by the Environment Agency) in October 2014 which put forward an intended scheme for implementation, which would also benefit from the inclusion of flood alleviation measures to help address instances of flooding which are experienced in the area on a fairly frequent basis.

1.3 Following consideration of responses to the public consultation, various modifications were made and the scheme has now reached the stage where a planning application has been submitted. HCC and the Environment Agency have worked in partnership to submit a full planning application for the development of a bypass of the A120 at Little Hadham, including a flood alleviation scheme. HCC is the determining authority for a planning application of this nature.

1.4 It is intended that the scheme would be delivered by 2019.

1.5 The full suite of application documents is available to view via the link provided at the Background Papers section of this report; however, a copy of the Planning Statement is included at **Essential Reference Paper 'B'** as this provides the context behind the scheme and a significant amount of relevant background

information. A copy of the site plan is also included at **Essential Reference Paper 'C'**. The consultation period closes on 7th January 2016.

2.0 Report

2.1 The application currently under consideration involves the construction of an A120 Bypass and Flood Alleviation Scheme at Little Hadham. The key objectives of the scheme's provision are:

To decrease the journey time and improve journey time reliability along the A120 between Bishop's Stortford and the A10 by delivering a local bypass at Little Hadham, to provide an improved transport network to support the East of England Economy;

To reduce the risk of fluvial flooding in Little Hadham by working with the Environment Agency to deliver a flood attenuation area as part of the delivery of the bypass; To reduce severance in the centre of Little Hadham by removal of the majority of through traffic congestion and, as a result, improving the overall well-being of residents in Little Hadham.

2.2 The principle of East Herts Council's support of the implementation of a bypass for Little Hadham has long been established. The background to the development of the scheme is set out in the Council's consideration of the 2014 public consultation in the relevant Non-Key report (NKD 14/16), a link to which is provided in the Background Papers section of this report. For context in considering the Council's response to the planning application, it is useful for the formal response to the previous consultation to be included at this point, when HCC was informed that East Herts Council:

(A) Supports both the principle of the construction of a bypass of Little Hadham and the route currently proposed;

(B) Considers that high priority should be given to mitigation measures to ensure that the visual impacts of both the road and flood alleviation structures are minimised as far as possible and in a manner compatible with their sensitive surroundings;

(C) Considers that it is extremely important that, where there is a need to alter existing public rights of way, these should be provided in such a way to ensure the safety of their users, taking into account those less ambulant or elderly;

(D) Requests Hertfordshire County Council to commence work on design proposals for post-bypass traffic management measures and the environmental enhancement of Little Hadham at the earliest opportunity, to ensure that scheme implementation can occur as soon as possible after the new route becomes operational;

(E) Urges Hertfordshire County Council to honour its commitment to investigate options for the bypass of Standon/Puckeridge once the Little Hadham bypass has been delivered.

2.3 Since the previous 2014 consultation, the project has been more fully worked up into a deliverable scheme and certain refinements made.

2.4 In respect of the planning application currently under consideration, the Council's Environment and Engineering section advises that it has been involved in the early stages of this project for a number of months and most recently at the

Little Hadham multi agency flood meeting. It agrees that the plans as detailed on the scheme drawing that indicate several flood storage areas would provide additional flood risk reduction and also provide opportunities for the creation of more amenity and biodiversity habitats as suggested in East Herts Council's strategic flood risk assessment (SFRA) document.

2.5 The Council's Environmental Health section has no objections to the application, and considers that the scheme will result in improved air quality in the village of Little Hadham.

2.6 The Council's Landscape Team has confirmed that it is happy to advise HCC on any detailed landscape design proposals, or arboricultural issues, as and when they arise, as the scheme progresses.

2.7 An officer of the Planning Policy Team has also been involved in the development of the scheme over the last few years via attendance of the related Project Board.

2.8 The scheme, as previously consulted on in 2014, has received strong local and wider support. The bypass would bring many benefits in terms of relieving congestion; providing greater journey time improvements and reliability; reducing flood risk to a significant number of properties in the village; and lowering noise and vehicle emissions. The implementation of the scheme is also viewed as an aid to boosting the local and wider economy and is supported by the Local Enterprise Partnership (LEP).

2.9 Following the implementation of the scheme, traffic calming and enhancement measures would be put into place in the village of Little Hadham to discourage through route drivers from utilising the former route and to ensure that the settlement would benefit from conditions more suited to the levels of traffic then intended to use it (in much the same way as the villages along the route of the old A10 benefitted when the bypass from Ware to Puckeridge was introduced). It is important for the quality of life of the residents of Little Hadham that the introduction of such measures be viewed as a priority by HCC and that they should be implemented at the earliest opportunity after the bypass opens.

2.10 From its original inception, it has always been intended that an A120 bypass should not only encompass Little Hadham, but should also provide relief to the settlements of Standon and Puckeridge. In this respect it is encouraging to note that, even though there is not yet any committed funding for such a scheme, consultation on potential route alignment is planned to take place with residents of those villages in 2016.

Further consultation response

No additional comments to make.

Little Hadham Parish Council

Original consultation response

This application was considered by the Council at an extra-ordinary meeting on Wednesday 6th January 2016 attended by 84 local residents.

For many years the Council has supported the provision of a bypass to the parish. This planning application brings the bypass much closer to creation.

The Council is aware that the principle driving force for the bypass comes from those traveling through the parish who will save eight or nine minutes during peak times and about four minutes at other times when they do not have to queue at the A120 traffic lights.

Parish residents will see many benefits from a bypass including:

- The flood prevention measures associated with the bypass will help protect many homes at the Ashe and the Ford. Many of these homes have been flooded more than once in recent years. This is seen by many residents as the most important aspect of the scheme.
- Queueing times at the A120 traffic lights will be shorter for those from the side roads. This will reduce the number of vehicles jumping the lights and putting pedestrians at risk.
- People have been deterred from sending their children to the village school and from buying homes in the parish because of the prospect of spending so much time waiting at the traffic lights.
- Fewer people will try to avoid the traffic lights by following a 'rat run' through Cradle End, Bury Green and Westland Green. These roads are unsuitable for fast traffic and there is a constant danger of accidents.
- The reduced volume of traffic along the A120 will make turning into the village school easier and safer. Pedestrians will be able to cross the A120 without a long wait for a gap in the traffic.
- The reduced volume of traffic through the parish, especially heavy lorries, should improve the air quality around the A120. This would have a particularly beneficial effect on the village school and nearby homes.
- The reduction in vehicles stopping and starting at the A120 traffic lights at all times of the day and night will reduce noise levels for those living nearby.
- Drivers will not be tempted to exceed the speed limit in an attempt to pass the traffic lights before they change to red.

The bypass will not, however be without drawbacks for local residents including:

- The bypass will pass relatively close to homes on the west side of Albury Road and Hadham Hall. Residents will have an increase in noise and visual pollution.
- The removal of the traffic lights holdup will attract more vehicles to use the A120. The traffic volume through Standon will increase. The lack of the 'platooning' effect on traffic flow will making turning onto and off the A120 in Standon more difficult and dangerous. A bypass for both Little Hadham and Standon would be more sensible.
- The planned bypass is for a simple road with one lane in each direction. There are some who doubt that this will be sufficient for future traffic. A dual carriageway between the M11 and A10 is likely to be needed eventually.

- The removal of the traffic lights holdup will increase traffic travelling through the parish travelling south. Traffic on the road south of the traffic lights, towards Much Hadham, is forecast to more than double at peak times.
- Although traffic along Albury Road is forecast to be reduced by a bypass, vehicles travelling to and from the Pelhams will still have to use the road. This includes a significant number of heavy lorries using the recycling unit at Furneaux Pelham.
- The bypass will occupy what is now open countryside and will be clearly visible – particularly from Albury Road.
- The bypass will disrupt a number of well used footpaths.
- A number of established trees will have to be felled.

There have been many views on the bypass expressed by a number of residents both for and against the bypass and the Council would like to address some of the issues raised.

Should there be a bypass at all?

A bypass will inevitably spoil open countryside. It will remove trees, affect footpaths and damage wildlife. Road improvements increase levels of traffic increasing the levels of air and noise pollution for everyone. Building a bypass for Little Hadham will only move the congestion to Standon.

However, the Council believes that most of the residents are in favour of a bypass.

Which route?

During the consultation period, residents were offered a number of possible routes the bypass could take. Most people chose the route that took the road furthest from homes and this route was originally accepted by HCC. However, after further consideration, including consulting residents near the ends of the planned bypass, HCC decided to adopt a shorter route which was closer to the houses on Albury Road. This decision was made without consulting other residents – including the Council. This, understandably, enraged many residents who thought their views had been ignored.

After some reflection, the Council agreed to endorse the revised route as it would be lower down the hill to Standon and so less visible to surrounding areas and it would despoil less of the open countryside. The Council is disappointed that HCC did not plan its consultation more carefully by not offering residents a route that was later withdrawn and by not involving everyone in the parish, including the Council, when changes were made to the route.

Residents of Albury Road are concerned that their road will still be affected by heavy traffic – particularly by heavy vehicles accessing the recycling depot in Furneaux Pelham. Restricted views and many parked cars make travel along the road dangerous yet many vehicles drive recklessly fast in order to reach the traffic lights. Poor visibility means it is very dangerous for many residents to leave their driveways. Albury Road residents are very concerned that there should be a slip road off the bypass for vehicles travelling north so that they do not have to pass through the village via the traffic lights.

How will traffic through the parish be affected?

Traffic through the parish on the current A120 is forecast to be reduced by about two thirds at peak times. Most heavy vehicles will use the bypass. Traffic through Cradle End, Bury Green and Westland Green are forecast to be greatly reduced. However, traffic on the road south of the traffic lights and on the road from the A120 toward Albury End are forecast to significantly increase.

How will a bypass affect homes?

Those homes nearest the A120 will profit from a great reduction in noise and pollution – particularly as most of the heavy vehicles will be diverted.

Some homes in Albury Road will be closer to traffic on the bypass than they are to the traffic at the traffic lights. This will inevitably increase noise levels. Some homes at Hadham Hall will also be relatively close to the bypass. The noise will be moderated by some of the road being in a cutting and by a bund and vegetation on the elevated section.

How will the bypass affect flooding?

71 homes and several businesses and community assets such as the Nags Head Pub, the Post Office, Doctors Surgery and the Village Hall have flooded, some several times in recent years, and are currently at risk of further flooding. Many more homes are currently at risk of secondary flooding from drainage ditches and drains that back up due to being unable to empty into a full River Ash. Also secondary flooding from sewer surcharging due to drainage from household roof gutters and other drainage pipes illegally connected into the sewer system.

The flood in 2000 and in 2001 cost over half a million pounds to repair and also caused significant disruption to transport links through the A120 at Little Hadham and surrounding roads. A further flood occurred in 2013 costing a similar amount to repair. Householders are now faced with insurance premiums of over £2000 per year along with a £15000 excess to pay before a new claim can be made. Flood risk homes are very difficult to sell which makes it harder for new people to move to the village and very difficult for village people starting families to move on to bigger homes. Unsaleable homes are more likely to become short term rental lets to enable the owners to move on to properties that suit their family needs. Some homes did receive some funding from a Repair and Renew Grant towards items to make their homes more flood resilient, but these were only available to householders who could afford to pay for the improvements first then claim it back. Any homes on a low income were unable to access the grant as easily.

With three floods in Little Hadham over 13yrs, and the increasing number of severe flood events seen each year throughout the UK, it is clear that it is just a matter of time before further flooding occurs. The cost/benefit analysis for structural flood prevention conducted by the Herts County Council and the Environment Agency has concluded that the only affordable sustainable way to help protect homes is to implement the Flood Alleviation Scheme that they will be responsible for maintaining. This will be part of the development for the proposed A120 by pass. The computer modelling shown in their planning application shows that 69 of the homes and the Pub, Village Hall etc. will be protected from flooding in the future for 1 in a 200 year severe rainfall events which is a higher protection level than that

installed in places such as York . This is achieved by a restrictor being installed where the bypass crosses the River Ash that during heavy rainfall will cause the water to back up into fields that currently flood, and be retained until it can be released slowly and safely back into the River. In extreme events such as a 1 in a 1000 year, the water will overflow along a slipway so that it does not affect Albury, and the overflow will flood homes in Little Hadham as before.

This proposal also says that as the water is held back to the north of the A120, the river level south of the A120 will be lower thus allowing the water run-off from the fields that currently backs up in drainage channels to be able to discharge into the river. There will be an improvement to the Lloyd Taylor Drainage by diverting the water away from the houses it currently affects and draining it around The Smithy directly into the River Ash using newly constructed channels that the Environment Agency will maintain.

There are concerns that the Lloyd Taylor scheme might not be able to cope at times of high rainfall. Residents would like an attenuation pond placed on this water course to the west of the village so that excess flood water will temporarily flood fields rather than flood the road.

Comments

1. The Council asks that HCC look again at the junction of the bypass with the Albury Road so that traffic bound for the north of the village does not have to travel via the traffic lights. Traffic should not be able to travel south along Albury Road from the bypass.
2. The Council asks that HCC revise its plans for the Lloyd Taylor drainage scheme to include the previously designed attenuation pond to prevent excessive water entering the waterway in the village.
3. The Council asks that HCC keep it informed of any changes to the published plan, however trivial, so that the local community can be kept informed.
4. The Council asks that the planning consent include time limits on when noise reduction measures should be installed.
5. The Council asks that the planning consent include time limits on the installation of traffic calming measures in order to reduce and slow the number of vehicles passing through the village after the bypass has opened.

Conclusions

The Council understands that some residents have serious reservations about the bypass as described in this planning application. However, the Council believes that, although far from perfect, most residents are willing to accept the plans as laid out by the County Council.

The Council wishes to add its support to the planning application in the hope that building can start as soon as possible. The Council hope to continue to work closely with the bypass team to ensure community input into the ecology/replanting and phase 2 road planning (traffic measures).

Further consultation response

The Council agreed that the alterations to the eastern end of the bypass would, if anything, improve the visual impact of the new road. The Council supports the measures taken to protect the important wildlife of the area – in particular the local bat population.

The Council understands the reasons for relocating the deer fencing to the top of the bund and consider that it will have minimal effect on local residents.

The Council continues to support the proposed bypass and flood alleviation scheme and hopes that construction work on the project can start as soon as possible.

Albury Parish Council

Original consultation response

The parish council submitted comments in response to the pre---planning consultation exercise at the end of 2014. This submission pointed out that Hertfordshire County Council had failed to follow its own guidelines as set out in its Statement of Community Involvement (SCI), adopted in March 2013. Paragraph 2.4 of the SCI states that, the County Council should ensure that key stakeholders, including district and parish councils, are involved in the process. The proposed A120 bypass follows the Little Hadham and Albury Parish boundary, weaving in and out of the two parishes. Albury Parish Council should have been identified as a key stakeholder, with an interest in the outcome of the preferred route; any measures to mitigate against the environmental impacts of the A120 bypass and the Little Hadham flood alleviation scheme. A very firm request was made in December 2014 that this oversight was rectified. This request has been ignored. No attempt has been made to respond to the concerns raised by the parish or discuss how the impact on the parish can be better mitigated. The identified 'moderate to major adverse' impacts of the proposal are of great concern to the parish council, as are the inaccuracies contained in the submitted documents.

Introduction

Two primary concerns remain: the landscape and environmental impact on Albury Parish in general and the particular concerns about increased flood risk in the parish. In addition, inconsistencies and inaccuracies in Arup's mapping give rise to a lack of confidence in their ability to understand the area for which they are providing specialist advice. The overall planning policy guidance for a local transport scheme and local flood alleviation against which these proposals should be judged is contained in the National Planning Policy Framework (NPPF). The planning system should contribute to the achievement of economic, social and environmental sustainability. This should include the provision of infrastructure and protect and enhance the natural environment, with all planning decisions underpinned by the NPPF's 12 core planning principles. Two of the 12 core planning principles are not upheld in the current proposals. A good standard of amenity is not being sought for all existing and future occupants of land and buildings; and the proposals do not contribute to preserving and enhancing the natural environment, for the parish of Albury.

Landscape and environmental impact

In paragraph 6.3.5 of the Statement of Consultation a significant number of respondents, including the parish council, expressed concerns about the adverse visual impacts of the scheme. The parish council does not feel that that paragraph 7.1.5 of the Statement of Consultation adequately answers these comments. The report says that 'planting has been included within the proposed scheme to screen views where required'. We are of the view that much more screen planting is required. We understand that Environment Agency embankments can only support close mown grass in order to maintain structural integrity and that tree and hedge planting will occur at the base of structures (according to the Landscape Strategy). However, insufficient information is contained in the documentation to convince the parish council that all possible options to reduce the impact of views from the north have been explored. The Statement of Consultation goes on to argue that further landscape planting, to reduce the visual impact, has to be balanced with the amount of land required from landowners. This is inadequate. Local negotiations could be conducted with landowners, facilitated by the parish council, for additional planting to be undertaken on private land, which does not have to be compulsory purchased as part of the scheme.

At page 361 of the Environmental Impact Assessment, it concludes that, even after mitigation, the significance of the residual impact on landscape and visual character will be 'moderate adverse'. The parish council consider that every opportunity should be taken to mitigate the impact of the proposed road and Little Hadham flood alleviation. The current documents submitted with the planning application do not sufficiently mitigate the impacts, or take every opportunity to achieve mitigation. Permission should not be granted until additional mitigation proposals have been submitted or further mitigation is ensured through planning conditions. In addition, the Statement of Consultation does not adequately deal with the issue of road noise. The statement refers in paragraph 6.3.5 to requests for low noise road surfacing but nowhere in the documentation does it state that the request has been considered, accepted or rejected. Additional noise barriers over the River Ash dam were also requested but in paragraph 7.1.5 of the Statement of Consultation it simply states that additional noise barriers have been considered but have been found to have limited additional benefits. The effect of additional noise generated by this road on the tranquil parish of Albury will be significant, particularly in relation to the section of road traversing the River Ash dam. These proposals reduce the amenity of residents in Albury Parish and do nothing to protect or enhance the parish's natural environment, and therefore are in conflict with national planning guidance. The parish council ask Hertfordshire County Council to reconsider the impact of noise in relation to this elevated section of road and require additional mitigation proposals to be submitted to lessen the impact on the landscape and natural environment.

Flood Alleviation

The parish council remains concerned that flood alleviation is focused on Little Hadham; the application is summarised, as a scheme would provide protection to Little Hadham and downstream communities from being flooded by the River Ash and its tributaries. The Planning Statement (para 4.1.2 and 4.1.4) says that the flood alleviation scheme will operate by the constriction of the flow of water through the embankment to protect Little Hadham. In paragraph 6.3.6 of the Statement of

Consultation comments relating to worries about increased flood risk to areas north of the dam are detailed. In paragraph 7.1.6 of the Statement of Consultation it states that the EA has carried out detailed modelling to ensure that the proposals will not have an adverse impact beyond the proposed flood storage areas, and that river levels in storm conditions, upstream of the storage areas e.g. at Clapgate and Albury would remain unchanged.

However, on page 345 of the Environmental Impact Assessment (EIA) the impact of the flood alleviation scheme on Little Hadham is compared with the impact on the parish of Albury. It concludes that there will be a major beneficial impact on Little Hadham and a major adverse impact on the land upstream of the Albury Tributaries and the River Ash crossings. Later at page 370, the EIA concludes that the significance of the residual impact on water and drainage, with an increased risk of flooding upstream of the Albury Tributaries and River Ash crossing will be 'large adverse', directly contradicting the Statement of Consultation response above. Comments were also recorded in the Statement of Consultation, about better maintenance of culverts and drains, and dredging of rivers as further measures that could help to tackle flooding in the wider area. Although the report states that the answer is contained in paragraph 7.1.6, this paragraph does not address the specific points made. The parish consider that there would be considerable benefit in addressing this point and including such other measures as mitigation to reduce the risk of flooding in Clapgate and Albury. It is noted that the level of the Upwick Road will be raised. In order to ensure that the Upwick Road is not flooded as a result of water being held back at the River Ash embankment, the flood storage area comes very close to the junction of Upwick Road and Albury Road and again brushes Albury Road immediately south of Clapgate. The parish council are concerned that sufficient measures have not been detailed in the planning application to provide assurances that Albury Road will not flood as a result of the flood alleviation measures for Little Hadham.

Incorrect and Inconsistencies

Firstly, the direct contradiction above, regarding the impact of the Little Hadham flood alleviation scheme on Albury Parish must be addressed. Will the impact upstream from the flood storage areas remain unchanged i.e. provide no environmental benefit, or will the flood risk be large and adverse? On page 345 of the EIA it compares Little Hadham, which it describes as an area of limited rural development, with Albury Parish, which it describes as open agricultural land and wooded areas. This statement is factually incorrect. North and west of the bypass and Little Hadham flood alleviation measures are the settlements of Upwick Green, Clapgate, Albury, Albury End, Patmore Heath and Gravesend. The proposed scheme shown in the Landscape Strategy shows the River Ash flood storage area as extending only to Upwick Road, whereas in all other documents it extend much further north, almost to Clapgate. These documents should be corrected to properly represent the schemes proposed with correct descriptions of the areas affected.

Conclusion

The comments made above lead the parish council to the conclusion that the impact of the A120 bypass and Little Hadham flood alleviation scheme on the

parish of Albury is extensive without any benefits. Although regard has been had to the NPPF in relation to the proposals and their positive effect on Little Hadham, the same regard has not been had for the negative impact on the rural parish of Albury and the hamlets of Albury End and Upwick Green, which are located a similar distance from the bypass as is the village of Little Hadham. Proposals to mitigate against noise, and the negative impact on the landscape and environment of the parish of Albury should be reassessed. Important and incorrect statements should be noted and amended and inconsistencies rectified. In particular, it is vital that the parish council understands exactly what the impacts of the proposals on flood risk are. Albury Parish Council is a key stakeholder in the planning and implementation of these schemes and should be fully involved in any and all further developments of the proposals, either through our planning consultant or directly with the Clerk and Chairman of the parish council.

Further consultation response

The Parish Council is pleased to hear of the amendments to the bypass, which now incorporates an underpass rather than the proposed Hadham Park Bridge. This solution will obviously be much better for local wildlife and the impact on Hadham Park reduced. The additional planting proposed and the amendment to the lighting scheme to include LED street lights is also a positive step.

However, none of the concerns expressed by Albury Parish Council in their letter dated 07/01/16 appear to have been taken into consideration, or the questions posed in that letter answered.

The amendment of most concern to Albury Parish Council and its residents is the deer fencing which is to be installed at the top of the dam embankments over the Albury Tributary and the River Ash. You state “the deer fencing has been moved from the toe of the embankments to the crest. This increases the ease of inspection of the fences, and reduces the risk of impounded water reducing the longevity of the fence.”

On page 20 of the Environmental Statement Addendum it is recognised that “The introduction of the deer fence on the top of the Albury Tributary flood attenuation embankment will be a perceptible new feature in close proximity views. However, this addition will not change the identified magnitude of impact and therefore the significant effects at recreational views E02 and E04 (very large adverse), E03 (large adverse) and E01 and E05 (moderate adverse), as at many of these the deer fencing will be visible in conjunction with the previously proposed noise barrier.”

Although we agree that the deer fence on the Albury Tributary may be seen in the context of the noise barrier, the River Ash embankment has no noise barrier, despite it being requested by the parish council.

We note that in Section 6 of the Planning Addendum that “the design amendments were found to not materially affect the landscape assessment”, but the Parish of Albury will experience the landscape impact of a deer fence on the River Ash embankment, without the benefit of a noise barrier, or any other form of mitigation, due to the restrictions on planting on the flood defence structure.

However, also in section 6 of the Planning Addendum, it states, “One additional land holding has been incorporated into the assessment as a result of additional planting provision.” This additional planting is to reduce ecological impact. Albury Parish Council requested, in its consultation response dated 07/01/16, that local negotiations be conducted with landowners, facilitated by the parish council, for additional planting to be undertaken on private land, which does not have to be compulsory purchased as part of the scheme. Nowhere does this appear to have been considered.

In fact, despite the planning application for the A120 by-pass having a significantly larger arc of influence on the Parish of Albury (and 10-15% of the area of the application falling within Albury Parish) than on Little Hadham, the consideration given for the effect on the parish is disproportionately small.

We ask again that options for environmental mitigation for the parish be considered. Albury Parish is suffering considerable impact from this by-pass proposal but minimal regard is being given to mitigating these effects.

Environment Agency

Original consultation response

The proposed development will only be acceptable if the following measures are implemented and secured by way of planning conditions on any planning permission granted.

Condition 1

The development hereby permitted shall not be commenced until such time as a scheme for the detailed design of the impounding structures and controls including debris screens where appropriate, on the River Ash and Albury Tributary has been submitted to, and approved in writing by, the local planning authority.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reason

To ensure the structural integrity of the proposed flood defences thereby reducing the risk of flooding.

Condition 2

The development hereby permitted shall not be commenced until such time as a scheme to provide adequate floodplain storage compensation at the Cradle End Brook crossing has been submitted to, and approved in writing by, the local planning authority.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reason

To prevent flooding by avoiding the displacement of flood water elsewhere.

Notes on conditions 1 & 2:

- i. A review of the above planning application has been undertaken independently from the Environment Agency Project Team proposing this scheme. The review has been carried out by the Oxfordshire, Swindon and Cotswold Partnerships and Strategic Overview team in Environment Agency's West Thames Area.
- ii. These comments are based on our review of the Flood Risk Assessment Ref: 235086-ARP-ZZ-ZZ-RP-CD-00001 Issue P03 (11 November 2015). We have not reviewed or commented upon the hydraulic modelling or modelling report as we understand these have been reviewed and approved separately by the Environment Agency
- iii. This proposal involves the retention of more than 25,000 m³ of water above normal ground level and will require registration under the Reservoirs Act 1975. Detailed design and inspection of the reservoir must be undertaken by a suitably qualified panel engineer.
- iv. We note from the flood risk assessment the proposed reservoirs will create depths of water of up to 5m close to the proposed highway. In agreement with Hertfordshire Council's emergency planners detailed design should include measures to ensure this depth of water does not pose any unnecessary risk to road users or others.
- v. Prior to deciding this application we recommend that due consideration by the local planning authority is given to assessment of surface water drainage (lead local flood authority).

Condition 3

Any facilities for the storage of oils, fuels or chemicals shall be provided with secondary containment that is impermeable to both the *oil, fuel or chemical* and water, for example a bund, details of which shall be submitted to the local planning authority for approval. The minimum volume of the secondary containment should be at least equivalent to the capacity of the tank plus 10%. If there is more than one tank in the secondary containment the capacity of the containment should be at least the capacity of the largest tank plus 10% or 25% of the total tank capacity, whichever is greatest. All fill points, vents, gauges and sight gauge must be located within the secondary containment. The secondary containment shall have no opening used to drain the system. Associated above ground pipework should be protected from accidental damage. Below ground pipework should have no mechanical joints, except at inspection hatches and either leak detection equipment installed or regular leak checks. All fill points and tank vent pipe outlets should be detailed to discharge downwards into the bund.

Reason

To protect groundwater. Any work must be done in line with the Environment Agency's Groundwater Protection 3 Position Statement on Storage of Pollutants, particularly statement D1 "Principles of storage and their transmission".

Note on condition 3.

The proposed main site compound (drawing 235086-APR-ML-XX-DR-YP-00103), is located over Secondary Aquifers (Thanet Sands and Lambeth group), as well as very close to the out cropping Principal Chalk Aquifer, in the North East. The area is also within a Source protection Zone 3 (SPZ3, total catchment).

The planning statements mentions that possible satellite compounds may be required. Where these will require the storage of oils, fuels or chemicals, they should be located outside of the Source Protection Zone 1 (SPZ1) North East of Little Hadham and the SPZ2 located South East of Hadham Park.

Ideally, the compounds should also be situated on the more impermeable geological deposits present, such as the London Clay, or other unproductive strata, in order to ensure that they do not pose an unacceptable risk to groundwater.

Condition 4

A scheme for surface water disposal needs to be submitted to and approved by the local planning authority. The scheme shall be implemented as approved. Infiltration systems should only be used where it can be demonstrated that they will not pose a risk to groundwater quality.

Reason

To protect groundwater. This must be done in line with the Environment Agency's Groundwater Protection Position Statements "G13: Sustainable drainage system" and "C4: Transport Developments". This is to ensure that SuDs are designed and maintained to current good practice standards, and that the point of discharge is located outside of Source Protection Zone 1 and 2. Where it is not possible to meet these discharge conditions, we will require a risk assessment in order to demonstrate that groundwater pollution will not occur.

Condition 5 No infiltration of surface water drainage into the ground along the length of the bypass is permitted other than with the express written consent of the local planning authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approval details.

Reason

To protect groundwater. Infiltration SuDs/ soakaways through contaminated soils are unacceptable as contaminants can remobilise and cause groundwater pollution. This is particularly important in locations overlying principal aquifers and within Source Protection Zones 1 and 2.

Condition 6

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until the developer has submitted a remediation strategy to the local planning authority detailing how this unsuspected contamination shall be dealt with and obtained written approval from

the local planning authority. The remediation strategy shall be implemented as approved.

Reason

To protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

Condition 7

The development hereby permitted shall not be commenced until such time as a scheme to secure the protection of licensed and un-licensed sources has been submitted to, and approved in writing by, the local planning authority. Any such scheme shall be supported by detailed information, include a maintenance programme, and establish current and future ownership of the facilities to be provided. The scheme shall be fully implemented and subsequently maintained, in accordance with the scheme, or any changes as may subsequently be agreed, in writing, by the local planning authority.

Reason

To protect groundwater. Areas of the proposed development are located within Source Protection Zones 1 and 2, and over The Chalk (Principal Aquifer). Construction and ongoing activities relating to the finished development could impact on the quality of the potable water supplies.

Condition 8

Piling or any other foundation designs using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

Reason

To protect groundwater. Some piling techniques can cause preferential pathways for contaminants to migrate to groundwater and cause pollution. A piling risk assessment should be submitted with consideration of the EA guidance <http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/scho0202bisw-e-e.pdf>

Condition 9

The scheme must be completed in accordance with the mitigation measures outlined in the Water Framework Directive assessment document submitted as part of the planning application, titled "*Assessment of Compliance with WFD Objectives for the Little Hadham A120 Bypass and Flood Alleviation Scheme*".

Reason

To compensate for any biodiversity lost as a result of the scheme. The mitigation outlined will ensure that the work is compliant with the Water Framework Directive.

Condition 10 The development hereby permitted shall not be commenced until such time as a biodiversity enhancement scheme has been agreed, submitted to, and approved in writing by the Local Planning Authority. The enhancement scheme shall be fully implemented and subsequently maintained, in accordance with the

timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reason

To ensure the protection of wildlife and supporting habitat and secure opportunities for the enhancement of the nature conservation value of the site. This is in line with National Planning Policy Framework (NPPF) policy to provide a net gain in biodiversity.

Examples of suitable enhancement work would be (but are not exclusive to) the following:

- Creation of new woodland habitat within the scheme
- Creation of new grassland habitat within the scheme
- Provision of improved buffer strips alongside channels within the scheme

The National Planning Policy Framework (NPPF) paragraph 109 recognises that the planning system should aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. Paragraph 118 of the NPPF states that if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused and that opportunities to incorporate biodiversity in and around developments should be encouraged.

Article 10 of the Habitats Directive stresses the importance of natural networks of linked habitat corridors to allow the movement of species between suitable habitats, and promote the expansion of biodiversity. River corridors are particularly effective in this way. Such networks and corridors may also help wildlife adapt to climate change.

Condition 11

There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this, the specifications, location and direction of artificial lights should be such that the lighting levels crossing the channel and within 8 metres of the top of bank of the watercourse are maintained at background levels.

Reason

To minimise light spill from the new development into the watercourse or adjacent river corridor habitat. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat, and in particular is inhibitive to bats utilising the river corridor.

Note to condition 11

Background levels should be to a Lux level of 0-2.

Condition 12 No development until a detailed method statement for removing or the long-term management / control of Japanese Knotweed (*Fallopia japonica*) on the site shall be submitted to and approved in writing by the local planning authority. The method statement shall include measures that will be used to prevent the spread of Japanese Knotweed (*Fallopia japonica*) during any operations e.g. mowing, strimming or soil movement. It shall also contain measures to ensure that

any soils brought to the site are free of the seeds / root / stem of any invasive plant listed under the Wildlife and Countryside Act 1981, as amended. Development shall proceed in accordance with the approved method statement.

Reason

This condition is necessary to prevent the spread of Japanese Knotweed (*Fallopia japonica*) which is an invasive species. Without it, avoidable damage could be caused to the nature conservation value of the site contrary to national planning policy as set out in the National Planning Policy Framework paragraph 109, which requires the planning system to aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible.

Informatives

The following informative should be attached to any planning permission granted.

Under the terms of the Water Resources Act 1991, and the Thames Regional Byelaws 1981, prior written consent of the Environment Agency is required for any proposed works or structures undertaken by others, in, under, over or within 8 metres of the top of the bank of the River Ash, Albury Tributary, Lord Taylor Drain, Spindle Hill Drain or Cradle End Brook, designated a 'main river'. Where works are undertaken by the Environment Agency works should be subjected to the same level of internal assessment.

Further consultation response

In our response to the original planning application in January 2016 (our ref: NE/2015/124210/01-L01) we requested a number of conditions be attached to any planning permission granted. With regard to our requested condition on lighting (condition 11) we would like the following added (see text underlined and in red below).

Condition 11

There shall be no light spill from artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this, the specifications, location and direction of artificial lights should be such that the lighting levels crossing the channel and within 8 metres of the top of bank of the watercourse are maintained at background levels. Also there shall be no light spill from artificial lighting in the areas to be enhanced for wildlife.

Reason

To minimise light spill from the new development into the watercourse or adjacent river corridor habitat. Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat, and in particular is inhibitive to bats utilising the river corridor.

Note to condition 11

Background levels should be to a Lux level of 0-2. There should be no light spill into future enhancement areas and wildlife corridors across the site (including the underpass).

We also request the following condition is added protect the Great Crested Newts and their habitat.

Condition

No development shall take place until a plan detailing the protection of and mitigation for damage to the population of Great Crested Newts (GCN) and their associated habitat during construction works and once the development is complete is submitted to and agreed in writing with the Local Planning Authority. Works shall then only proceed in accordance with the agreed scheme. The scheme shall include the following elements:

- i. A new pond shall be created to compensate for the fragmentation of critical breeding habitat.
- ii. The proposed covered tunnels within the underpass are made suitable for GCNs and the following considerations must also be taken into account to improve the likelihood that the tunnels will be used effectively:
 - a. Directional fencing to ensure newts can find the tunnels within the underpass – this is critical if the tunnels are to be effective.
 - b. Method to prevent disturbance from predators, pedestrians, vehicles and the elements – i.e. how it will be covered
 - c. Rough gravel substrate throughout, with rocks or other suitable refuge places for newts to rest through the tunnels.
 - d. No areas where newts may become trapped or unable to move in and out of the tunnel.
 - e. A management strategy is put in place to keep the tunnels passable and prevent them getting blocked up with material.

Reason

The proposed road dissects the route between three Great Crested Newt (GCN) breeding ponds. There is no guarantee that GCN will use the underpass to travel between ponds, therefore it is suitable to create a new pond to compensate for this potential fragmentation of critical breeding habitat. It is also important to improve the likelihood of the tunnels being used by GCN. This condition is necessary to protect the GCN and its habitat within and adjacent to the development site. Without it, avoidable damage could be caused to the nature conservation value of the site.

Informative

We recommend that advice is sought from Natural England on the compensatory habitat to be provided for bats which we do not believe is currently sufficient. Further compensatory habitat should be considered and should link in with future environmental enhancement works. These should create joined up corridors and linked areas of habitat across the site.

Hertfordshire County Council – Highways

Original consultation response

The Highways Development Management team at Hertfordshire County Council (HCC) does not wish to restrict the grant of permission subject to the following conditions:

Conditions:

Condition 1: No development shall commence until a phasing programme has been approved in writing by the Local Planning Authority. The provision of all elements in

a phasing programme shall be carried out in accordance with the approved phasing programme, and the time triggers specified in it, unless otherwise agreed in writing by the Local Planning Authority.

Reason: To provide clarification on how the development will be delivered, to assist the determination of reserved matters and to ensure that the necessary infrastructure provision and environmental mitigation is provided in time to address the impact of the development.

Condition 2: Prior to the commencement of each phase of the scheme in the phasing plan, detailed plans of all proposed highway infrastructure or modifications to the existing highway infrastructure shall be submitted to, and approved by, the Local Planning Authority. This must include all works external to the site, detailed road layouts and the extent of proposed road adoption and drainage provision.

Reason: To ensure that all highway works are built to Highway Authority standards and requirements.

Condition 3: Prior to the commencement of the development, a Construction Traffic Management Plan shall be submitted to, and approved by, the Local Planning Authority. The Construction Traffic Management Plan shall contain:

- the phasing of the development of the site, including all highway works, and the programme of works on site - location and details of wheel washing facilities and other measures to ensure control of dirt and dust on the public highway - methods for accessing the site, including construction vehicle numbers, sizes, and routing - associated construction vehicle parking and turning areas, and storage of materials clear of the public highway - temporary warning signage on any parts of the existing public highway where its users might be affected by the works - details of temporary or permanent road closures and traffic management measures - details of consultation with local businesses and neighbours

The construction of the development shall only be carried out according to the approved Plan.

Reason: To minimise impact of the construction process on the local environment and local highway network.

Condition 4: The highway element of the development shall not be brought into operational use until the development has been fully constructed to the satisfaction of the Local Planning Authority.

Reason: To ensure that the completed scheme is not used until it has been formally approved.

Advisory Note It is recommended that post-construction traffic monitoring shall be undertaken within 12 months of opening, and associated studies submitted to the Local Planning Authority in order to determine the extent of mitigation measures on the existing route.

The proposal is for a 3.9km long northern bypass of the A120 around Little Hadham and a flood alleviation scheme. The A120 is a vital east to west route in Hertfordshire's primary road network, linking the A10 and M11, and provides key access route to Bishops Stortford, Stansted airport and the county of Essex. Currently the highway experiences severe delays in the village of Little Hadham at the four-arm signalised junction with Albury Road. The proposed A120 bypass seeks to alleviate the congestion in the village's centre and subsequently decrease commuter travel times.

The proposal involves constructing the bypass through agricultural land and will consist of the following elements:

- 3.9km long new single carriageway with a national speed limit of 60mph; - Differential acceleration lane on the exit from the west roundabout; - 1km long eastbound climbing lane in the middle of the scheme due to steep gradients; - Two new all movement roundabouts at either end of the scheme – Tilekiln Roundabout (west) and Hadham Park Roundabout (east); and, - Three bridges; - Bridge taking existing Albury Road over the bypass; and, - Two accommodation bridges catering for agricultural vehicles and PRoW.

Site Description

The site for the proposed bypass is located north of the village of Little Hadham. The extents of the proposed bypass are approximately 2.4km east of the centre of Little Hadham on the A120 and approximately 600m to the west. The proposed bypass route will pass through agricultural land and cross Albury Road, Public Rights of Way (PRoW) and private/field accesses.

Analysis Policy Review

The applicant has provided a policy review of the following policy documents in their application for the proposed development:

- Transport White Paper (Creating Growth, Cutting Carbon Making Sustainable Transport Happen) 2011; - National Planning Policy Framework (2012); - The Eddington Transport Study: The Case for Action: Sir Road Eddington's Advice to Government 2006; - Transport and the Economy in the East of England: The Transport Evidence Study September 2008; - Hertfordshire County Council A120 Strategy 2006; - Local Transport Body Shortlist 2013; - Local Enterprise Partnership Strategic Economic Plan March 2014; - The Hertfordshire Infrastructure and Investment Strategy 2009 - Hertfordshire County Council (HCC) Local Transport Plan 3-2011-2031; - Inter-Urban Route Strategy; - East Herts Local Plan; - East Herts Draft Local Plan; and, - Eastern Herts Transport Plan April 2007.

The policy review is considered appropriate for the purposes of the TA.

Transport Assessment

The applicant has provided a Transport Assessment (TA) for consideration by the Highway Authority Development Management team.

Trip Generation and Distribution

The strategic traffic model, Harlow Stansted Gateway Model (HSGTM), was used to predict future year traffic flows. HSGTM is a strategic traffic model generally covering east Hertfordshire and the western side of Essex and provides an estimate of future traffic volumes on road links. It includes estimates of traffic with future planned development proposals including committed developments, local plan allocations, and planned infrastructure improvements. This approach was agreed by the Highway Authority Development Management team during pre-application discussions. The HSGTM traffic model was used to predict the future base plus bypass traffic flows by making the following changes to the network in the HSGTM model:

- Proposed bypass infrastructure was added into the road network; and, - The signal timings at the A120/Albury Road junction have been adjusted to improve the operation of the junction, post opening the bypass, when traffic volumes at the junction would be reduced.

The TA provided a summary of the two-way link flows for both the 2019 and 2024 years and for both the baseline and base with bypass scenarios. The percentage change between the baseline and base with bypass scenarios were provided. The results varied by location. Notable increases occurred on the following sections of road:

- A120 between High Street and Horse Cross; - A120 between Horse Cross and Albury End; - A120 between Albury End and bypass roundabout; - Cambridge Road; - Horse Cross Road; and, - South of Little Hadham signals.

Impact on Highway Network Journey Times

As part of the TA the journey times before and after the implementation of the bypass were considered. On average in both the AM and PM peak hours, users would have time savings between 7.6 and 9.1 minutes. The inter peak periods would see a 3 to 4 minute time saving with the introduction of the bypass.

Junction Assessment

The applicant has provided junction assessments for the following junctions:

- A10/A120/Ermine Street roundabout; - A120/Cambridge Road; - A120/South Road/Barwick Road; - A120/Station Road; - A120/High Street/Mill End; - A120/Horse Cross; - A120/Albury End; - A120/Albury Road (Little Hadham signals); - A120/Cradle End; - A120/A1184/Hadham Road roundabout; - A1184/B1004 roundabout; - A1184/Obrey Way roundabout; - A1184/B1383 roundabout; - Tilekiln Roundabout (western end of proposed bypass); and, - Hadham Park Roundabout (eastern end of proposed bypass).

The aforementioned junctions were assessed for the following scenarios:

- 2014 Base Year; - 2019 (opening year) Future Year Base Flow; - 2019 Future Year Base Flow plus bypass; - 2024 (5 years post opening) Future Year Base Flow; and, - 2024 Future Year Base Flow plus bypass.

Base traffic flows were obtained by obtaining classified turning counts and queue length surveys for the following junctions in March 2014:

- A120/Cambridge Road; - A120/South Road; - A120/Station Road; - A120/Standon High Street; - A120/Horse Cross; and, - A120/Cradle End.

In June 2014 classified turning counts were obtained at the A120/Albury End junction. HCC provided ARUP with turning count data for the following locations:

- A120/A10 (April 2014); - A120/Albury Road (April 2014); - A120/A1184 (June 2008); - A120/B1004 (June 2011); - A120/Obrey Way (March 2015); and, - A1184/B1383 (June 2008).

The applicant applied TEMPRO growth factors to covert 2008 and 2011 traffic survey data to 2014 for consistency with the other survey data.

The proposed peak hours were 08:00 – 09:00 and 17:00 – 18:00 for the AM and PM peaks, respectively. The following thresholds were deemed appropriate for each of the assessed junctions and were used to support the results of the assessments:

- Ratio to Flow Capacity (RFC): a figure at or below 0.85 demonstrates that the junction is operating satisfactorily. 0.85 to 1.0 indicates that the junction is over desired capacity but within theoretical capacity, and greater than 1.0 the junction is considered to be operating over theoretical capacity. - Maximum Queue Length in Passenger Car Units (PCU's). - Delays (seconds).

The junction assessment results were summarised as part of the TA and full assessment results were provided as an Appendix in the TA.

The 2014 baseline analysis junction modelling results demonstrated existing capacity and operational issues at the A120/Albury Road signalised junction. The junction is operating well over theoretical capacity threshold in both AM and PM peak hours.

The 2019 baseline analysis junction modelling results demonstrated future capacity and operation issues at the following locations:

- A10/A120 Roundabout – A10S arm operates over theoretical capacity in the PM peak hour. - A120/Albury Road Signalised Junction – operates over theoretical capacity in both peak periods. - A120/A1184 Roundabout – Hadham Road arm operates over theoretical capacity in the PM peak hour.

The 2019 base plus bypass analysis junction modelling results demonstrate potential future capacity and operational issues when the bypass is introduced to the road network:

- A10/A120 Roundabout – A10S arm operates over theoretical capacity in the PM peak hour with queues exceeding 100PCU. - A120/Cambridge Road – Cambridge Road arm would operate over theoretical capacity in both peak hours. - A120/Station Road – Station Road arm would operate over its theoretical capacity in the AM peak hour. - A120/A1184 Roundabout – Hadham Road arm and A120W arm operate over their theoretical capacities in the AM and PM peak hours.

The 2024 baseline analysis junction results demonstrate that the same junctions as the 2019 scenario will operate over the theoretical capacities. However, in 2024 the following junctions also demonstrate potential future operation and capacity issues:

- A120/Station Road Junction - Station Road arm operates over its theoretical capacity in the AM peak hour. - A120/Cradle End junction – Cradle End right turn operates slightly over its theoretical capacity in the AM peak.

The 2024 base plus bypass analysis junction modelling results demonstrate potential future capacity and operational issues at the same junctions as was highlighted in 2019 results. However, in 2024 the following junctions also demonstrate potential future operation and capacity issues:

- A10/A120 Roundabout – A10N arm operates over theoretical capacity in the AM peak hour. - A120/Horse Cross Junction – Horse Cross arm will operate over its theoretical capacity in the PM peak hour and A120E arm will operate over its theoretical capacity in the AM peak hour. - A120/ A1184 Roundabout – A120N arm operates over its theoretical capacity in the AM peak hour.

While the aforementioned junctions experience degradation as a consequence of the bypass in 2019 and 2024, the aim of the bypass was to reduce congestion and improve highway conditions through Little Hadham, in particular at the A120/Albury Road signalised junction. The introduction of the bypass noticeably improved the junction's capacity and operation by removing a high volume of bypassing traffic from the highway through the village.

Highway Safety

The applicant has provided detailed collision data as part of the Transport Assessment for the affected road network for the period of December 2009 to November 2014. The collision data is considered suitable for this purpose and no distinct causation patterns were identified for any of the accident clusters along the network. It is not considered that the proposed bypass will negatively impact on the overall safety of the highway.

Swept Path Analysis

The applicant has provided swept path assessments of the proposed bypass and new junctions. Swept path assessments demonstrate that a FTA Design Articulated Vehicle (1998) with a 16.5 overall length can safely traverse through the network.

Vehicle Access

Due to the nature of the proposed development, this is not applicable.

Pedestrian Access

Due to the nature of the proposed development, this is not applicable. PRowS diversions will be discussed in the accessibility section.

Road Safety Audit

A Stage 1 Road Safety Audit has not been provided as part of the application package. However, a Stage 1 Road Safety Audit will be required for any new junctions and highways to ensure that the design is safe and appropriate for its intended use.

Refuse and Service Delivery

Due to the nature of the proposed development, this is not applicable.

Parking

Due to the nature of the proposed development, this is not applicable.

Cycle Parking Provisions

Due to the nature of the proposed development, this is not applicable.

Accessibility

Public Transport - The TA identifies that there may be impacts to buses through the area as a consequence of the new bypass. The following bus routes were identified as travelling along the A120 through the village of Little Hadham, through the congested A120/Albury Road signalised junction – 20, 351, 354 and 386. The introduction of the bypass will improve reliability and decrease the bus journey times along this section of the route.

Two bus routes, 354 and 386, were identified as passing through the Little Hadham signalised junction to travel to Standon. Travellers to and from Standon will therefore benefit from the reduction of traffic congestion at the A120/Albury Road signalised junction. Bus routes along Station Road and High Street may be impacted by the A120 traffic as it may become more difficult to turn right from cross streets. High Street junction operates within capacity so bus services on this road are unlikely to be greatly impacted. While Station Road operates over capacity, the TA states that the bus routes are unlikely to be impacted as the route 354 only operations on a Saturday, route 386 has no schedule services during the AM peak or the PM peak and route 331 has only one southbound service during each of the peak hours.

Walking and Cycling - There are several PRowS in the vicinity of Little Hadham which include connections to the north and south of the A120. The following PRowS cross the route to be altered:

- Footpath 57; - Footpath 58; - Bridleway 35; - Bridleway 36; and, - Footpath 34.

There are also footway provisions along the A120 through Little Hadham. Footways are provided on Albury Road on the western side that go to the edge of the village from the A120 junction. Footways are also provided on Albury road south to Hadham Ford on the eastern side. No formal crossing points are provided along the A120 with the exception of at the Albury Road signalised junction.

Travel Plan

Due to the nature of the proposed development, this is not applicable.

Construction

A Construction Traffic Management Plan (CTMP) will be required to ensure construction vehicles will not have a detrimental impact on the vicinity of the site and a condition will be required to provide adequate parking for construction vehicles on-site to prevent on-street conflict and impacts to the highway safety. Planning Obligations / Community Infrastructure Levy (CIL) Due to the nature of the proposed development, there will be no S106 Agreements required.

Conclusion

The Highways Development Management team at Hertfordshire County Council at Hertfordshire County Council (HCC) does not wish to restrict the grant of permission, subject to conditions.

Natural England

Original consultation response

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)

No objection – no conditions requested

This application is in close proximity to the Patmore Heath Site of Special Scientific Interest (SSSI). Natural England is satisfied that the proposed development being carried out in strict accordance with the details of the application, as submitted, will not damage or destroy the interest features for which the site has been notified. We therefore advise your authority that this SSSI does not represent a constraint in determining this application. Should the details of this application change, Natural England draws your attention to Section 28(1) of the *Wildlife and Countryside Act 1981* (as amended), requiring your authority to re-consult Natural England.

Other advice

We would expect the Local Planning Authority (LPA) to assess and consider the other possible impacts resulting from this proposal on the following when determining this application:

- local sites (biodiversity and geodiversity)

- local landscape character
- local or national biodiversity priority habitats and species.

Natural England does not hold locally specific information relating to the above. These remain material considerations in the determination of this planning application and we recommend that you seek further information from the appropriate bodies (which may include the local records centre, your local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document) in order to ensure the LPA has sufficient information to fully understand the impact of the proposal before it determines the application.

Protected Species

We have not assessed this application and associated documents for impacts on protected species.

Natural England has published Standing Advice on protected species. You should apply our Standing Advice to this application as it is a material consideration in the determination of applications in the same way as any individual response received from Natural England following consultation.

The Standing Advice should not be treated as giving any indication or providing any assurance in respect of European Protected Species (EPS) that the proposed development is unlikely to affect the EPS present on the site; nor should it be interpreted as meaning that Natural England has reached any views as to whether a licence is needed (which is the developer's responsibility) or may be granted.

Although we have not assessed this application for impacts on protected species, we do note that the Environmental Statement (ES) and its supporting appendices have identified the presence of a number of protected species, including Barbastelle and other bat species, great crested newts, badgers, reptiles and breeding birds. Natural England also notes that the ES contains detailed mitigation proposals, some of which will need to be subject to licence applications in due course.

In addition to the species listed in the ES and its appendices, a member of the public has claimed that nightingales and deer are also present in the vicinity and may need to be taken into consideration.

Biodiversity enhancements

We note that the ES contains a number of proposals for the incorporation into the design of features which are beneficial to wildlife, such as the infilling of gaps in existing hedgerows and the creation of new ponds. The authority should consider securing such measures to enhance the biodiversity of the site from the applicant, if it is minded to grant permission for this application. This is in accordance with Paragraph 118 of the NPPF. Additionally, we would draw your attention to Section 40 of the Natural Environment and Rural Communities Act (2006) which states that *'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'*. Section 40(3) of the same Act also states that *'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'*.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us.

Natural England offers two chargeable services - the Discretionary Advice Service (DAS), which provides pre-application and post-consent advice on planning/licensing proposals to developers and consultants, and the Pre-submission Screening Service (PSS) for European Protected Species mitigation licence applications. These services help applicants take appropriate account of environmental considerations at an early stage of project development, reduce uncertainty, the risk of delay and added cost at a later stage, whilst securing good results for the natural environment.

Hertfordshire County Council – Ecology

In respect of the further information submitted in support of the above proposal, I would like to make the following comments:

1. The principal new information on ecological matters concerns the **barbastelle bat trapping and radio tracking study** undertaken to update and improve the understanding of this species use of habitats along the route of the by-pass and inform mitigation and compensation measures. Despite considerable previous targeted survey effort, there remained a contrast between the information collected on this species and the local knowledge of this bat in its roost woodland and in the general area. Consequently the compensation measures proposed were not considered adequate.

2. Specialist barbastelle surveys were commissioned in 2016 to consider:

- Status along the route with emphasis on woodlands and tree lines;
- Radio-track individuals to assess breeding colonies and sample habitat use;
- Establish a more robust baseline to inform mitigation proposals along the route.

3. Surveys included trapping and radio-tracking, automated roost emergence and re-entry surveys during June and August. 35 bats of various species were captured during June – including Leisler's, another rare species.

4. A total of **six barbastelle bats were radio-tracked**. Breeding female barbastelle flew further distances and had longer home ranges than males. One of the key findings was that **all bats bar one used the woodland corridor between Stocking Wood and Bloodhounds Wood**, crossing the existing A120, a key crossing point being the underpass and Little Plantings Wood. From the radio-tracking data for each bat, it appears that relatively limited crossings of the proposed route of the by-pass are made, other than by the underpass and to the west of Little Hadham (Bat 753). Use of the landscape locally also takes place east, north and south of the route. At least five crossing points of the existing A120 road are identified although two are through existing underpasses for farm vehicles and at there are at least another three crossings of main roads locally. Of course this is only a sample of these individual bats and of the population as a whole (estimated to be 10-15%), but I support the view that **the woodland corridor to the east of**

the route is a critical asset locally. However it would also appear that the sample of bats at least can tolerate existing road crossings in a number of places in the area – indeed, one roost is immediately on the edge of Bishops Stortford (Bat 280).

5. Eight roost sites were identified from the tracked bats, none of which were within the 'enclosed' loop of the proposed road although this does not preclude other possible roost sites being present within this area.

6. Fig 2 does not show roost locations but trapping sites; roost locations are identified collectively on Fig 3 and for each of the bats tracked and shown on subsequent Figures. All but one roost were located on **dying oak trees, associated mostly with loose bark**, the maximum count of emerging bats being 18. This **highlights the importance of these features** within the landscape.

7. The main findings in respect of habitat use is that the woodland complex from **Bloodhounds to Stocking** appears to be the '**roost woodland**' given that this area seems to be the main breeding site. Juvenile and male bats also showed similar patterns of habitat use. Adult females used mature tree lines, small copses and woodlands within the wider agricultural landscape.

8. The overall results have been evaluated:

8.1 Barbastelle bats were caught in all the main woodlands associated with the woodland roost complex and at the existing A120 underpass. Other bats associated with woodland included Natterer's, Leisler's, Daubenton's, brown long-eared and pipistrelle.

8.2 Activity patterns are similar to previous studies on barbastelle but home ranges, core areas and distances travelled were smaller, probably due to the more limited number of bats sampled than previous studies. Habitat use is centred on woodland foraging within this otherwise largely agricultural landscape, with commuting routes including linear tree lines and woodland belts as well as open arable land, especially when dark.

8.3 Roosts used were typical for this species and characterised by loose bark, which is often used for a few days before moving to another site. This is a vulnerable habitat feature subject to local losses due to storm damage. Many trees supporting this feature are likely to be used during the breeding season and so are a very valuable resource.

8.4 It is considered that the **barbastelle population affected by the A120 bypass is of national importance** given the rarity of this species and clear use of the Bloodhound Wood complex as a breeding site. I am aware there is an SAC in Cambridgeshire for barbastelle – this was originally notified as an SSSI for its woodland habitat –but was extended to include the barbastelle roost areas, one of the few maternity roost sites known. However there are also relatively recent records scattered across NW Essex with a number from Hatfield Forest. I am not aware of any proposal to designate the roost site of Bloodhounds and Stocking Woods complex an SSSI.

9. No compensation or mitigation suggestions are included within the survey report; these are outlined within other recent documents, as below:

10.1 The **Environmental Statement** has been amended. The principle change to the proposal is the introduction of the **Hadham Park underpass** which replaces the previously proposed bridge. This will provide for a **safe passage option** across the new road directly west of Bloodhounds / High Wood. This should provide new mitigation / compensation for barbastelle flying westwards from the roost complex and represents an improved response to the better understanding of the bat's use of the area. The Hadham Park underpass is partially based on the bat surveys, as noted on the Plan and Profile drawing and cleared for farm vehicles, which will require it to be c.5m tall and c.7m wide. It will be nearly 21m long with entrances planted with trees and hedgerow.

10.2 **Additional ecological planting** is also proposed north and south of the existing A120 underpass to maintain a good flight line into the underpass and to reduce the impact of any additional lighting from the roundabout junction that will be required.

10.3 The position of deer fencing has also been reconsidered to ease river inspection etc. although this is of no ecological concern.

11.1 Additional bat data and an updated extended Phase 1 habitat survey were used to inform a revised assessment upon ecological receptors along the length of the scheme.

New potential impacts and effects were identified, which will be mitigated and enhanced by the following measures as part of the revised Proposed Scheme:

- **Roadside planting** of 9.1 km of species-rich hedgerow with trees, located at the boundaries of the Proposed Scheme.
- **Non roadside planting** of 3.7 km new hedgerow or enhancement of 7.4 km of hedgerow, or a combination of the two. This will be located at least 25m from the Proposed Scheme.
- **Artificial lighting** to be installed at Tilekiln and Hadham Park roundabouts has been designed to include the following **bat mitigation** measures:
 - Careful positioning of lighting columns to take account of proximity of vegetation likely to be used by bats;
 - Low mounting height of lights;
 - Use of highly directional light sources; and
 - Use of shields where necessary to avoid backward light spill.
- The provision of **Hadham Park Underpass** to partly mitigate the increased collision risk as a result of the Proposed Scheme. This will be supplemented by the additional habitat provision outlined above to mitigate impacts at the population level.

11.2 I consider further clarification would be needed for some of the above:

- Regarding the proposed hedgerow planting, it is not entirely clear as to what will be provided;
- No heights are given for what is considered to be low mounting lights;
- The extent of lighting along the existing A120 is not shown on a plan within the ecological statement.

11.3 I would expect detailed proposals on these issues to be provided either prior to determination or as a Condition of approval. The proposals also need to demonstrate the avoidance of light pollution in the vicinity of the Hadham Park roundabout.

12. **Nature Conservation** is addressed in detail in Section 4.4 of the updated Environmental Statement. This primarily reflects the above bat work and updated extended Phase 1 some new habitat information. The ES addresses the expected range of habitats and species, including designated nature conservation sites, habitats and species of principal importance, hedgerows, bats, badger, hazel dormouse, otter, water vole, great crested newt, reptiles, breeding birds, Roman snail and watercourses. Planning policy is outlined, along with other guidance within the BAP, habitat network mapping and birds of conservation concern. The approach should comply with the CIEEM Guidelines for Ecological Impact Assessment.

13. Thorough desk studies and field surveys have been undertaken – supplemented by the above **more detailed bat work and updated 2016 habitat surveys**, in order to determine ecological values according to best practice. **The**

Phase 1 Habitat Survey in July 2016 did not find any significant differences in the habitats described in 2014. This is not unexpected unless some land had been left unmanaged or otherwise severely modified, for which there is no reason. **I consider two detailed surveys of this nature over two years are more than adequate to describe the area in question.**

14. The route and the local area are then described in terms of sites, habitats and species.

14.1 Habitats

The quality of the semi-improved grassland adjacent to the reservoir south of Newwood Spring is high, although given its location surrounded by intensive arable, artificial nature of the pond and its species composition, it may well have been sown. It is in any event not affected by the road. The Phase 1 survey recorded land within a 500m buffer of the road. The majority of the land affected by the road proposals is of limited ecological significance given it is dominated by intensive arable (95%), although some species interest in the general area is surprisingly high. The river Ash is degraded at this point of its course given the low and intermittent flows it now suffers from.

14.2 **Species** are described accordingly. The key one is **barbastelle bat**, the roosts of which are considered as being of national importance. **This is the most significant ecological issue affected by the road scheme and appropriate mitigation is essential to maintain this species.** Otherwise, a total of **nine bat species were recorded in 2016, a moderate-high diversity** which is surprising for the local land area. This is considered to be of district value. Perhaps the 'ancient' quality of some of the local features present in the general area – hedgerows, scattered woodlands and woodland chains, is a factor in helping to support these, given the agricultural land is otherwise ecologically unprepossessing. Consequently **maintaining habitat connectivity** would be a key objective. Trees located within land required for the scheme have been assessed for bats and no significant tree roosts were identified.

14.3 **Badger** details are unavailable but I have no reason to suspect they will have not have been adequately addressed. **Other mammal species** in the area have variable conservation significance from brown hare, hedgehog to fallow deer, although these are not likely to be affected by the road other than in potential road casualties, the avoidance of which will be partly addressed by fencing where considered necessary.

14.4 **Amphibians and reptiles** were recorded although will not be directly affected by the road although great crested newt habitat between three breeding ponds west of Bloodhounds Wood will be removed. Previously breeding pond 9 was considered to be affected – apparently it is now considered that no breeding ponds occur within the proposed scheme.

The presence of **32 common bird species** recorded as part of the breeding bird community is considered to be typical of that for farmland and includes skylark, whitethroat, yellowhammer, song thrush, linnets and bullfinch. A breeding pair of barn owls is present in the area which is of county significance.

14.5 **Roman snail** was recorded as a small population and considered as of Parish value. It is increasingly considered as being of local abundance on chalk soils in Hertfordshire.

14.6 **White-letter hairstreak butterfly** was recorded from an elm hedge and considered of Parish value. It is also locally abundant in this habitat across east and north Hertfordshire.

14.7 A small stand of **Japanese knotweed** was recorded north of the scheme.

On the basis of the above, **I consider the ecological surveys to be sufficient to provide an appropriate baseline to assess impact and mitigation / compensation requirements.**

15.1 The **impacts of construction** works are described. The principle change is that the **Hadham Hall roundabout works are considered to have a permanent adverse effect significant at the county level on the Wildlife Site of Little Plantings Wood.** I am unclear as to why this is so; the proposals shown on Drawing 'General Arrangement for A120 Sheet 7' show all the works taking place within the current highway boundary. Whilst there is a label 'new access location' largely obscured and pointing into the woodland, this whole woodland area lies outside of the Application Site boundary which includes compound areas so I cannot see how this wood will be affected. Whilst the roundabout works could impact upon adjacent tree roots of the woodland, I consider this would be only along the very edge and potentially little more than affected already, so I do not see why this is considered to be an adverse effect at the county level.

15.2. The **watercourses** affected appear to be small features of limited value; the **impact is considered to be not significant** and I have no reason to disagree with this.

15.3 The proposals will **remove 3.71 km of hedgerows** of which 1.1km are 'important'. This is considered to be a **permanent adverse effect significant at district level.**

15.4 The **removal of treeline / hedgerow habitat** used by barbastelle bats; some may be affected more than others if they currently use these specific features for commuting / foraging given they forage separately from each other. Two of the radio tracked bats used these features; in total **it estimated that four bats from the Bloodhounds Wood complex will be affected by the road impacts**, which if breeding females, represents **10% of the estimated population.** **The fragmentation of the hedgerow from the SW corner of Bloodhounds Wood is considered to be a permanent adverse effect significant at the national level,** without mitigation. The impacts of **uncontrolled lighting during construction** of Hadham Hall roundabout are also now considered to be of **national significance.** The national significance of the impact on barbastelle is consistent with the view expressed in my previous comments.

15.5 **Other bat species** using hedgerow features will be **similarly affected**; this impact is now upgraded to be **significant at the District level.**

15.6 Works will also affect **great crested newts** by removing habitat (hedgerows) between three breeding ponds. This may potentially cause **local extinctions** and is considered to be **significant at the district level**. An EPS licence will be required. A mitigation strategy will be required by a Condition of approval. An EPS licence will also be needed.

15.7 It is considered that ground works associated with the two roundabouts will affect barn owl foraging habitat. I am not clear as to why this is the case given that no rough grassland habitat was identified within these areas on the Phase 1 Habitat survey, although they are close to small areas of amenity grassland which is unlikely to be of much significance if closely grazed or mown. No details are available in the confidential barn owl report, but this is considered **significant at the county level**.

16. 1 **Operational impacts** are then described. Little impact is considered for designated nature conservation sites. Watercourse impacts seem to repeat the Construction impacts.

16.2 In respect of species, **barbastelle** bats are clearly the most important. **Mitigation to limit light pollution** in respect of bats at both roundabouts is outlined in 12 above. Whilst this is unlikely to remove all the negative impacts of lighting, further measures are described:

- 'the specific lighting products to be used will be **low colour temperature LED lights (amber)** that have a **low UV component** which will minimise the attraction of nocturnal flying insects. This will minimise disturbance to bats relative to the more widely used cool temperature LED or high pressure sodium lighting'.

16.3 Despite this, the negative impact of lighting – however mitigated – is still considered to potentially deter crossing or use of Little Plantings Wood by barbastelle, which also currently cross the existing A120 without using the underpass. **The eastern approach to the roundabout will be illuminated for 133m** in accordance with road safety standards. This will affect the whole of the **northern edge of Little Plantings Wood**, a site known to be used by three of the radiotracked bats. I consider this to be a highly significant impact on the most sensitive area of the whole scheme.

Consequently, **additional planting is proposed** to improve habitat connectivity and help to screen the proposed lighting impacts. This is proposed north of the A120 immediately west of the underpass and south of the existing A120 between Little and Great Plantings Woods. In principle this should help to consolidate and replicate the characteristics of the existing crossing point given that these areas will not be subject to any illumination. It will encourage continued bat use of the underpass area as well as encourage continued crossing of the existing road above the underpass.

16.4 However, **the proposed new planting**, whilst welcomed as a proposal to secure additional habitat, **needs to be reconsidered**. Currently the area is shown on the Phase 1 survey as improved grassland with scattered trees but the majority of this area is in fact **former ancient woodland**, the remains of which are now present as the remaining scattered standard trees, possibly some of the original

younger standards which were retained following felling of the remainder of the woodland. This now effectively provides a **wood pasture habitat** which would already be of considerable value for foraging bat species, similar to parkland in character. **It is not appropriate to plant all of this area up with trees if this already provides a good habitat.** It would be better to enhance this with hedgerow planting were appropriate and secure an agreement with the landowner to continue management if currently grazed – presumably there must already be an agreement to plant it up.

16.5 Securing this feature – with **some strategic tree planting** to screen the roundabout, hedgerow and grassland enhancements – would be just as beneficial if not more so, and should be reconsidered in this respect. I believe such a **management agreement** would be as valuable as the current proposal which should be revised to secure the maintenance and enhancement of the existing habitat present here alongside screen planting.

16.6 The proposed new **Hadham Park Underpass** is designed to mitigate the increased collision risk resulting from the proposed scheme given that bats using it will not be exposed to traffic. However the risk of mortality from road traffic collisions due to the new road cannot be entirely eliminated; indeed, it is acknowledged that bats already cross existing roads in a number of places within this area without using underpasses, as revealed by the radiotracking data. The new road will undoubtedly increase this general risk for a variety of reasons (more and faster traffic), but it may also reduce the risk on the bypassed road. However, on balance **I acknowledge the range of mitigation measures as outlined in the ES will seek to reduce any increased impacts, consistent with the level of significance of impact identified.**

16.7 **Other bat species – mitigation measures** for barbastelle will **benefit all other bat species.** The new underpass will partly mitigate the increased traffic collision risk associated with the proposed scheme. The additional planting – where appropriate – will also increase foraging resources which may also increase recruitment into the local bat populations and so compensate for any losses due to road mortality.

16.8 **Barn owl. Semi-mature native trees of at least 3m** in height will be planted on raised bunds between Cradle End Brook and Hadham Park Roundabout to act as a '**hop-over**' for barn owls which encourages them to fly higher at this location and so avoid vehicle collisions. There is also a commitment to **provision of a nesting structure at least 3km away** (4.4.9.2). Whilst I consider that this will not guarantee birds will not continue to cross elsewhere or even forage along the new roadside verge, **I acknowledge this approach seeks to reduce mortality of barn owls.**

16.9 **Compliance with the Water Framework Directive** is also described for the River Ash, Albury tributaries, Lloyd Taylor Drain, Cradle End Brook, Bury Green Brook. These appear to adequately consider ecological issues I have no reason to consider these do not satisfy WFD requirements although I have no expertise in assessing these matters.

17. **Residual effects** are described for construction and operation as follows:
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Construction: designated sites – not significant; watercourses – compliant with WFD objectives; hedgerows – beneficial at district level; great crested newts – not significant; barn owl – not significant; barbastelle – not significant; other bats – not significant.

Operation: watercourses – compliant with WFD objectives; barn owl –not significant; barbastelle – not significant; other bats species – not significant.

Assuming mitigation, compensation and enhancement measures are put in place, I have no reason to dispute the residual effects.

18.1 Cumulative effects. The adjacent **Bishops Stortford North** development is described as providing ecological mitigation for several features including barbastelle and great crested newt, removing any adverse impacts and consequently generating **no significant ecological effects**. Consequently, if these are successfully implemented it is not anticipated there will be any cumulative effect.

18.2 Whilst I acknowledge mitigation is proposed, I do not consider that however successful this may be, the introduction of 2,000 homes essentially next to currently largely undisturbed Wildlife Site woodlands and old grassland cannot possibly do anything other than degrade this area by introducing considerable disturbance and physical pressure on this area. Whilst this is largely inevitable, **I do not consider the impacts of the proposed road scheme will generate additional impacts which together would otherwise be unacceptable, given that the planning position for the BSN development is long standing as a development site, involving largely arable land.**

19.1 Ecological enhancements. It is stated the proposed scheme will generate the following enhancements:

- A large net gain in native hedgerow, including 9.1km of roadside planting;
- Further hedgerow planting within 10km of the scheme;
- 2.5 ha of new woodland between Little Plantings and Great Plantings Wood;
- Extensive roadside margins of wildflowers;
- Sympathetic management for wildlife;
- Four maternity / large colony bat boxes on retained trees.

These represent mitigation for species as well as enhancements and are largely supported, notwithstanding the new woodland comments above (16.4).

19.2 I also consider the long term success and contribution of the roadside verge grasslands as species-rich grassland is likely to be limited given the lack of appropriate management and influence of adjacent arable sprays, which will invariably lead to a coarsening of the sward and ultimately scrub encroachment. However, the verge communities will in part be dependent upon the exposed soil and slopes and I acknowledge the contribution rough grassland will make even for small mammals and other wildlife in providing cover and foraging areas.

20. **Additional mitigation measures** are outlined that are required to comply with nature conservation legislation or animal welfare. These include:

- Resurveying trees with bat roost potential prior to felling within the proposed route;
- Culverts and underpasses under the road will be made large enough for badgers to enable safe passage;
- A final badger survey pre-works commencement will be undertaken and an appropriate mitigation strategy provided as necessary;
- Deer fencing to exclude fallow deer from the road corridor. Bridges and underpasses would provide crossing points;
- Nesting birds – vegetation removal outside of the breeding season or at least not without an appropriate check;
- Reptiles – precautionary reptile displacement approach for vegetation clearance; supervised potential hibernacula dismantling; fencing to exclude reptiles as appropriate; provision of hibernation sites at the base of hedgerows.
- Relocation of Roman snails as necessary, under licence from NE.

21.1 **Given the negative impacts of the scheme on bats and great crested newts**, it is stated that **a European Protected Species (EPS) licence will be required** for these species. **Suitable mitigation and compensation has been proposed** for bats and great crested newts will be outlined in more detail as a Condition. This seeks to avoid any significant adverse effect upon EPS and **I consider the proposals will achieve this in a reasonable and proportionate manner. This will also enable the three Habitat regulations tests to be satisfied** as outlined within the planning statement. On this basis I also have **no reason to consider that appropriate EPS licences would not be issued for the works**.

21.2 EPS licences would also require a **monitoring programme** to be implemented and this is referred to within my previous comments. However it would be helpful for a **monitoring programme for barbastelle to be agreed as a condition of Approval if it is not provided prior to determination**. In my view this should include monitoring the woodland roost complex, and both underpass crossing points (Bury Green Brook underpass and Hadham Park underpass).

22. These comments reflect the principle changes to the original planning application submission. In this respect I will not repeat my previous comments, most of which still stand in relation to the scheme. My principle concerns related to the proposed seed mixes and subsequent management practicalities, as also outlined above.

23. **On the basis of the above, I do not consider there are any outstanding ecological issues that would in principle prevent this proposal from being determined, subject to satisfactory amendments as outlined.**

Herts & Middlesex Wildlife Trust

Original consultation response

Objection: The majority of the ecological report and mitigation/compensation strategy is acceptable. However there are a number of elements that require more information, more consideration, more mitigation/compensation measures or further clarification. In principle HMWT does not object to the concept of the scheme but is extremely concerned about the lack of appropriate survey, quantification of impact and mitigation measures put forward regarding barbastelle bats. These are set out below:

Bats (barbastelle):

The primary ecological consideration for this scheme is how the internationally important maternity population of barbastelle bats will be impacted by the proposals. This is the only confirmed maternity colony in Hertfordshire. It receives the highest level of protection under European law and is listed as an Annex II species of the European Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora) – an animal of community interest whose conservation requires the designation of Special Areas of Conservation. Under the Conservation of Habitats and Species Regulations 2010, LPAs have a duty to consider the Directive in the application of all their functions.

This population is likely to be affected in several ways:

- Severance of flight lines
- Lighting at the main crossing point
- Increased traffic disturbance brought closer to sensitive roosting areas

The ecological report recognises these issues but does not put forward sufficient mitigation and compensation to be certain that the population will not be negatively affected. The conservation status of this species makes it vital that these impacts are clearly understood and accounted for in accordance with the legal duty of the local authority. It is recommended that the following changes are applied.

Flight lines:

Dark flight lines, particularly at dusk, are critical for the foraging behaviour of barbastelles. Early foraging along dark flight lines is estimated to provide up to 2 hours extra foraging time per night¹, which can be critical in their survival chances. Whilst barbastelle are known to cross open landscapes in the late evening and dawn, they are faithful to dark flight lines in the early evening in order to extend their feeding activity and range. Disturbance of these flight lines through light pollution or traffic disturbance could significantly impact on the conservation status of the barbastelle population. There is also a real risk of collision with traffic if mitigation designed to facilitate crossing the road has not been properly designed. Whilst suitably designed underpasses are known to be effective, if these structures are not correctly positioned or too small it is likely that they will not be used. This will force the population to cross the road at a more dangerous location or abandon the flight line.

The first step in gauging impacts of the scheme on barbastelle is to identify where these flight lines are and then protect them with suitable mitigation. At present no flight lines have been found by this study, nor has sufficient effort been made to find

¹ <http://www.bio.bris.ac.uk/research/bats/britishbats/batpages/barbastelle.htm>

them. Given the importance of this colony, consistent with the criteria for designation as a Special Area of Conservation, it is considered appropriate that the ecological consultant conduct a radio tracking study to find and protect these flight lines with appropriate mitigation. BS 42020 states:

6.2.1 *All ecological information should be prepared and presented so that it is fit to inform the decision-making process (see 8.1). As such, all ecological information should be:*

a) appropriate for the purpose intended and obtained using appropriate scientific methods of ecological investigation and study (see 6.10);

b) sufficient, i.e. in terms of:

- 1) scope of study;*
- 2) habitats likely to be affected;*
- 3) species likely to be affected;*
- 4) ecological processes upon which habitats and species and system function are dependent;*
- 5) coverage of a sufficiently wide area of study commensurate with the requirements of the species or feature of interest, including connected systems (e.g. downstream)*

In accordance with these principles, insufficient survey effort has been put forward to establish exactly how the development will impact on the barbastelle population.

Appropriate mitigation is likely to consist of reinforcement of hedgerow connections (large tree planting in hedgerows or green lane creation), creation of undisturbed water sources (not close to the road and on the north side of the road), and suitably sized road crossing points. The currently proposed road crossing points represent a serious issue with the scheme at present. It is suggested in the report that a culvert of 1.5m in height and an unspecified width is sufficient to function as a bat underpass. The literature referenced in the ecological report has been misrepresented to justify this height. Boonman states ² *'This cross sectional area (the cross sectional area of the bat underpass, my emphasis) differs per species, it is 7 m² for Daubenton's bats, 18 m² for pond bats and 47 m² for common pipistrelles (based on a probability of 95% that a culvert is used)..... If bats prefer to maintain a certain distance to both horizontal and vertical obstacles (Schaub & Schnitzler 2007), an underpass with a width/height ratio of one would be preferable to a wide and low underpass with the same cross sectional area.*

Clearly a culvert of 1.5m by 1.5m would not provide the necessary cross sectional area to function as a bat underpass for any of these species. Given that the priority species in terms of use of the underpasses is barbastelle, examples of where barbastelle use underpasses should be mimicked. The current underpass across the A120 is one example but no dimensions are provided. Another study (Kerth, Melber 2009³), also referenced in the ecological report, documents the use of a culvert of 4.5m x 5m as being used by barbastelles. In the absence of other evidence this should be considered the minimum dimensions of a barbastelle underpass.

² Martijn Boonman, 2011. Factors determining the use of culverts underneath highways and railway tracks by bats in lowland areas. Lutra Volume 54, Number 1, Pages 3-16

³ Kerth, G. and Melber, M. 2009. Species-specific barrier effects of a motorway on the habitat use of two threatened forest-living bat species. Biological Conservation Volume 142, Issue 2, Pages 270–279

Lighting:

The only confirmed flight line and road crossing point (as identified by the Herts and Middx Bat Group surveys in 2011 – not this study) is the A120 underpass. The road proposals involve lighting the roundabout at the eastern end of the scheme within 100m of this feature. It is not specified how far away from the roundabout the lighting will extend, what light levels will be, what type of light will be produced etc. If this flight line is severed due to the impacts of lighting the colony will be significantly compromised. The ecological report acknowledges this possibility of disturbance but provides no detail on the level of light disturbance and no detail on mitigation measures. It suggests possible mitigation options but no definitive measures. This is not good enough, particularly for a population of this importance. BS 42020 states

'6.6.2 An ecological report should avoid language that suggests that recommended actions "may" or "might" or "could" be carried out by the applicant/developer (e.g. when describing proposed mitigation, compensation or enhancement measures). Instead, the report should be written such that it is clear and unambiguous as to whether a recommended course of action is necessary and is to be followed or implemented by the applicant.' The LPA must be sure that the scheme delivers certainty that this population will not be negatively affected in accordance with their legal duty under the Habitats Directive and Conservation of Habitats and Species Regulations 2010.

The ecological report must identify the significance of the A120 flight line through appropriate survey and the level of threat to that flight line through full explanation of the lighting proposed. Once this has been provided appropriate mitigation measures can be designed. A bat survey submitted in support of a planning application should show:

- what is there and its value and significance;
- how it will be impacted by the development;
- how these impacts can be mitigated;
- how the development will result in no net loss (and where possible a net gain) to their population.

At present this survey does not fulfil these requirements.

Increased traffic disturbance:

Roads, particularly major roads, have been shown to have a significant disturbing effect on bat activity⁴. This proposal will bring the road with all its associated noise and light impacts closer to the known roosting locations of the barbastelle colony in Bloodhounds Wood. This impact has not been adequately addressed in the report. Guidance on appropriate survey, assessing impacts and appropriate mitigation for

⁴ Berthinussen A, Altringham J. 2012a. The effect of a major road on bat activity and diversity. Journal of Applied Ecology 49, 82-89.

road schemes is provided the DEFRA research report WC1060⁵. The ecological report submitted in support of this proposal should utilise this research to demonstrate that the scheme will not result in unacceptable levels of disturbance that would negatively impact this Annex II species.

Monitoring:

In order to establish an acceptable baseline to enable assessment of the existing population and subsequent effective monitoring of the population and the mitigation designed to protect it, a suitable monitoring scheme must be fully described. It is our contention that an appropriate baseline survey has not yet been conducted. This baseline survey needs to be fully described, approved and completed to enable appropriate assessment of the impacts of the scheme and to facilitate the production of a complementary monitoring programme. The monitoring programme should be consistent with best practise guidelines (Berthinussen A, Altringham J. 2015) and demonstrate how it will be able to address any failure of the mitigation.

Enhancement:

NPPF states:

109. The planning system should contribute to and enhance the natural and local environment by:

- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*

113. Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.

117. To minimise impacts on biodiversity and geodiversity, planning policies should:

- *plan for biodiversity at a landscape-scale across local authority boundaries;*
- *identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;*
- *promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;*

118. When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

⁵ Berthinussen A, Altringham J. 2015. Development of a cost effective method for monitoring the effectiveness of mitigation for bats crossing linear transport infrastructure. DEFRA research report WC1060.

125. By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

In this instance there is an as yet unspecified impact on a European Habitats Directive Annex II species of conservation concern (barbastelle). NPPF and the Conservation of Habitats and Species Regulations clearly expect that all impacts upon this population are understood and appropriately mitigated before permission can be granted. However NPPF goes further than just mitigation. It expresses the requirement to 'enhance the local environment', 'provide net gains in biodiversity where possible', that 'appropriate weight' is given to the protection of 'international' sites, that LPAs identify international 'sites of importance for biodiversity, wildlife corridors and the stepping stones that connect them', 'promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets'. Ultimately it seeks to 'conserve and enhance biodiversity'.

In order to truly enhance this internationally important population (and benefit other species incidentally), it is recommended that a habitat enhancement fund be created for the use of local landowners to attempt to increase the barbastelle population in the area. This fund could be administered by an appropriate body to incentivise local landowners to provide habitat known to benefit barbastelle populations⁶. It should aim to encourage habitat creation schemes, good management and account for income foregone by undertaking such improvements. Habitat enhancement should focus on proven methods such as, hedgerow tree planting, creation of dark corridors (avenue, green lane or double hedge planting), pond creation, woodland planting, wetland border enhancements, wildflower meadow, artificial roost sites to facilitate monitoring (Greenaway 2008).

Definition on ecological enhancements currently offered:

The outline environmental mitigation offered to date is welcomed and will contribute to the local ecological environment in a positive way. However species lists, numbers of trees etc. have not been specified. Definitive detail must be provided either before or after planning (via an appropriate condition) to ensure that ecological gains are maximised. This must apply to all planting schemes, habitat creation, establishment and management regimes.

Summary:

- More survey information required to properly quantify impacts on barbastelle population
- Mitigation required based on the survey appropriate to the level of impact, e.g. lighting, habitat creation, flight line crossing points etc.
- Monitoring regime required
- Habitat enhancement fund required to create net gains in barbastelle population
- Definition needed on all other habitat creation aspects of the scheme

Further consultation response

⁶ Greenaway, F. 2008. Barbastelle bats in the Sussex West Weald 1997 – 2008, Sussex Wildlife Trust
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The previous comments of HMWT on this application made the following points in objection to the original proposals.

- More survey information required to properly quantify impacts on barbastelle population
- Mitigation required based on the survey appropriate to the level of impact, e.g. lighting, habitat creation, flight line crossing points etc.
- Monitoring regime required
- Habitat enhancement fund required to create net gains in barbastelle population
- Definition needed on all other habitat creation aspects of the scheme

In response to this representation and those of other ecological objectors, the applicant has submitted further survey and outline mitigation/compensation. The additional bat survey is of the highest quality and significantly increases the understanding of how bats (with particular reference to barbastelle) use the landscape. From the information generated it is possible to draw reasonable assumptions about how the population of barbastelle will be impacted by the proposals. The report attempts to address these impacts by suggesting suitable avoidance, mitigation, compensation and enhancement measures to offset them. It identifies the main impacts to be collision risk, habitat destruction, lighting and disturbance. The previous objection points are addressed below in turn in relation to the new ecological information. If not comments are made on ecological mitigation it should be assumed that HMWT is comfortable with the measures put forward.

- More information has been supplied which enable reasonable assumptions to be made regarding how barbastelle and other bat species use the landscape. HMWT is satisfied that sufficient survey effort has now been undertaken.
- Mitigation for collision risk has been partially addressed by the inclusion of an underpass at position 11. The risk of collision cannot be entirely eliminated or predicted so a judgement of what is reasonable to address concerns based on the data provided should be employed. HMWT are satisfied that this mitigation in conjunction with other measures is sufficient to minimise potential collisions to acceptable levels.
- Mitigation for the impact of lighting has been suggested and will include cowled low level lighting with low UV output and a warm light colour. In principle this is acceptable but no information is provided as to how high these lights will be or a more detailed specification. It is important that all mitigation measures are definitively proposed (in accordance with BS 42020) so that the LPA know what will be delivered. It is recommended that a pre commencement condition is applied stating that development cannot proceed until details of the lighting scheme are supplied. The distance that the lighting must extend from the Hadham Hall roundabout has been stated as 133m, which brings it very close to the main A120 underpass crossing point. HMWT would like further reassurance that this will not result in any light disturbance of the flight line to the underpass.
- Despite mitigation measures to reduce the lighting impacts, it is acknowledged in the report that there will be residual negative effects. These are predicted to

cause disturbance to foraging and roosting areas in Little Plantings Wood and documented road crossing points. It is therefore stated in the report that a European Protected Species Mitigation License will be required. In accordance with R (on the application of Simon Woolley) v Cheshire East Borough Council, the applicant is required to supply answers to the three tests of an EPSML to the LPA. This information has been supplied. The LPA must have regard to these tests in reaching its decision on the application so that it can discharge its duties under the Conservation of Habitats and Species Regulations 2010 (as amended).

- 3.7 km of hedge are shown to be destroyed, with 1.1 km of this being protected under the Hedgerow Regulations 1997. It is proposed to compensate for this by planting 9.1 km of roadside hedge and 3.7 km of non-roadside hedge or 7.4 km of hedgerow enhancements. It is ambiguous at present as to which will be delivered and should be clarified. In accordance with BS 42020 it should be made clear exactly what will be delivered.
- It is acknowledged that the production of various documents is proposed to be subject to condition: e.g. CEMP, landscape planting specifications, barbastelle bat mitigation strategy, Great Crested Newt mitigation strategy. This is acceptable but greater clarity of principles to underpin these documents should be established at this stage. For example:
 - It should be stated that all documents will be consistent with BS 42020 and definitively explain what will be delivered – not what could be done. All measures must be marked on plans.
 - Hedgerow planting should incorporate a minimum of 10 species appropriate to the soil type and location. The landscape specifications at present contain some inappropriate species such as Elder. All material should be of native provenance.
 - It should be clarified whether 3.7 km of non-roadside planting or 7.4 km of hedgerow enhancement, or both, will be delivered. It is recommended that both are provided. It should also be made clear how hedgerow improvements and ongoing management will be funded and delivered.
 - Grassland creation and management should be based on appropriate NVC community types – at present the mixes described in the landscape plan are not wholly appropriate. Emorsgate seeds offer better approximates to NVC communities and are of entirely native provenance.
 - Woodland creation will be based on appropriate NVC community types e.g. W8. Woodland planting should not be in straight lines.
 - Pond and wetland planting will be complex, respect local plant distribution and include a range of specific egg laying species for newts.
 - All management regimes will be fully described and costed to deliver beneficial management in perpetuity. Details of funding mechanisms should be supplied.

- A scheme to monitor the barbastelle population must be fully described, including potential remedial actions to address any negative trends in the barbastelle mitigation strategy.
- The planting of new woodland to part compensate for the loss of up to 4 core foraging zones of barbastelle is welcomed, but the location of the 2.5 ha of new woodland in the parkland to the south of the A120 is not considered to be a suitable location for this. Insufficient survey information has been provided to show that this will have a beneficial impact on the environment in general and on barbastelle in particular. There is no species list or NVC assessment of the existing habitat supplied sufficient to accurately assess its ecological value. There is no assessment of the invertebrate population that it may support. Ordinarily the invertebrate fauna would not be a major consideration but after communication with the landowner it is known that it approximates the definition of Parkland, has been unfertilised for decades and is grazed with a herd of organic cattle. Organic cattle are extremely rare locally and provide a highly valuable feeding opportunity for a range of bat species due to not being subject to anthelmintics (wormers). These persist in their dung and have an enduring negative effect on dung fauna. Conversely the dung and general presence of organic cattle will have a significant beneficial effect on invertebrate diversity and numbers.

The field's proximity to other woodland, semi-mature Oak parkland character and organic status means that it is highly likely to make a significant contribution to the local invertebrate population, adding diversity of species and habitat. This will have consequent beneficial effects on the feeding resources available to barbastelle and other bat species. Its character and location means that it will function more like a large, complimentary woodland glade with multi-dimensional feeding opportunities due to its complex structure. It should not be dismissed as semi improved species poor grassland – as it is in the ecological report addendum. It has much more value than that. Irrespective of this, the presence of the semi-mature Oaks means that the assessment does not accurately reflect its ecological identity. Whilst not strictly conforming to the S41 definition of Parkland, it shares many features and is certainly moving towards this habitat.

Therefore it is not considered to be appropriate to effectively replace one locally uncommon habitat of ecological value with another. This does not represent a substantial ecological gain, rather an exchange of one important ecological resource with another.

This field could make a greater contribution to the barbastelle population e.g. a broad hedge bordering the green lane with a network of ponds to create a darker flight line, shelter and food source, or a floral enhancement of the pasture. However this should be with the agreement of the landowner because if this is not compatible with the current management of the field it will not result in the desired ecological uplift.

If it is agreed that planting this field with trees is not acceptable on ecological grounds then alternative solutions should be proposed. There are several

other options available e.g. equivalent sized W8 woodland creation on arable land, flight line reinforcement through hedge management agreements. To do this in the time available it is recommended that a habitat enhancement fund is provided to seek opportunities with local landowners to accomplish a set of agreed habitat creation and management outcomes.

- The fund should be provided to facilitate additional barbastelle habitat creation and management – above and beyond just the replacement of the 2.5 ha of compensatory woodland planting. Quantifying the impacts of this development is extremely difficult, although the bat report has done a good job in attempting to do this. With a population of this importance it is reasonable to provide a contingency for additional habitat enhancement as a safety net for the long term survival and expansion of the colony. This is consistent with the NPPF requirement to conserve and enhance biodiversity and reflective of the national importance of this population. The bat survey has identified a potential severance of flight lines for up to 10% of the barbastelle population. It would seem reasonable that a mechanism for compensatory habitat creation for sufficient habitat to replace this resource should be provided. The compensatory hedgerow planting cannot be considered to be part of this calculation because it is to compensate for the habitat that is being removed, not the severance of flight lines. Similarly the road side habitat creation is unlikely to be utilised based on our knowledge of this species. Therefore at present there is a net loss of accessible foraging habitat for barbastelle as a result of this proposal. This must be addressed through additional habitat creation in appropriate and viable locations.

Summary

- HMWT is satisfied that sufficient survey information to make a judgement has now been provided.
- Collision risk has been adequately addressed but not flight line severance.
- Lighting plans acceptable in principle but more details required together with assurance there will be no increase in light levels to route to existing A120 underpass.
- Answers to the tests of a EPSML supplied. LPA should consider these in reaching their decision.
- Hedgerow planting or enhancement plans need clarifying in accordance with BS 42020.
- CEMP, Landscape, barbastelle bat mitigation strategy and GCN strategy can be conditioned. They need to state definitively what they will deliver i.e. BS 42020 compliant.
- Recommendations made for inclusions/amendments to these plans. Planting should be appropriate and authentic based on NVC.
- All management described and in perpetuity funding mechanism specified.
- Barbastelle monitoring scheme fully described together with potential remedial actions.

Additional habitat creation/management fund required.

Hertfordshire and Middlesex Bat Group

Original consultation response

Objection

The Hertfordshire and Middlesex Bat Group (HMBG) object to the current proposals for the A120 bypass due to the: lack of appropriate bat survey particularly with regard to important population of barbastelle bats known to be present within the area, poor analysis of the impact of the bypass on bats and the inadequate mitigation proposals put forward to ensure that the bat populations remain at a favourable conservation status and are not lost from the local area. The HMBG considers that the current proposals pose an unacceptable risk to the bat populations.

Inadequate Bat Survey

The bat report (Bat Survey Appendix D.6 13th May 2015) provides insufficient detail for a sound baseline to be able to adequately assess the impact of the proposed bypass on the bat populations. The HMBG assumes that the surveyors are fully licensed experienced surveyors for such an important road scheme but no information is provided in the report. Weather conditions can affect bat activity. Although the dates of the transects are given, there is no information on temperature, wind speed or rain during the surveys as is usual practice.

The position of the SM2 bat detectors are mapped and the transects walked are mapped but there is no interpretative mapping of the different bat species behaviour such as the flight lines and foraging areas. The HMBG considers that the surveys should have been designed to cover a wider area to better understand the bat population movements. Since a maternity site for barbastelles has been identified by the HMBG within close proximity to the bypass, it is particularly important that the flight lines for barbastelles (a bat species of international importance listed on Annex 11 of the European Habitats Directive and therefore receiving the highest level of protection) is fully understood prior to the construction of the bypass.

The HMBG considers that further field bat surveys are required to establish the barbastelle flight lines. This will be required as a baseline for future monitoring and to ensure that the mitigation measures are sufficient to maintain the species population at a favourable status within the area. Post construction monitoring will be required to provide feedback on the impact on the scheme with further proposals implemented should the monitoring show the population to be affected.

The HMBG dataset contains confidential sensitive species location data. ARUP have not mapped their own species data but have mapped the Bat Group's data. The HMBG provided ARUP with records from their database to enable them to be aware of previous bat species locations in the area and help them with the analysis of their own results. The data provided included the radiotracking survey undertaken by the Bat Group. The data is supplied with terms and conditions applied to their use. HMBG were surprised that their confidential records had been plotted as point data on a map without prior consent. ARUP have therefore not complied with the Bat Group conditions for the supply of data and have breached the data owners (HMBG) copyright.

Assessment of Impact

The construction of the A120 bypass would result in the: loss of the existing hedgerows along the route of the new road, sever existing bat flight lines, cause disturbance to areas currently used by bats and potentially could kill bats by collision with traffic. Of particular concern is that the increased traffic and light spillage from the new road would be brought closer to sensitive bat roosting areas including the important maternity colony of barbastelles identified by the HMBG.

Although barbastelles will fly over open habitats, they favour flying: through woodland, along tree-lined river/stream valleys and along overgrown field hedgerows. The Environment Statement (ES) states that the ground works within the land will require the removal of 3.4km of hedgerow, which they acknowledge will have an adverse impact on species dispersal. However the ES also states that the removal of the hedgerows will not significantly affect the barbastelles which could be disputed. The HMBG considers that the loss of 3.4 km of hedgerows is likely to have an impact on the bat populations flying within the area including barbastelles. Barbastelles fly between Bloodhounds Wood and to the west areas such as Braughing and Standon. The proposed bypass crosses the Ash Valley the Albury tributary and the Cradle Brook; watercourses likely to be followed by barbastelles.

Barbastelles avoid light and are currently flying and foraging within dark areas. Any change in the light levels could cause significant disturbance that could result in bats having to fly greater distances to foraging habitats and put the population of bats at risk. Any lighting of the new road that changes the behaviour of bats by causing them to deviate from their normal flight route to an alternative darker area could constitute illegal disturbance under the Conservation and Habitats Regulations 2010. The impact may be great enough to cause the bat population to leave the area. The ARUP Environment Statement (November 2015) also concludes that the permanent night time illumination of the proposed Tilekiln and Hadham Park Roundabouts is likely to divert light sensitive barbastelles from their existing dispersal routes, potentially reducing their home range and extent of accessible foraging leading to a reduction of breeding success of the barbastelle bats. The ES report page 203 concludes that the impact will result in a permanent adverse effect on barbastelle conservation status which will be significant at county level.

It is of particular concern to the HMBG that the east Hadham Park roundabout (area proposed for installation of permanent lighting columns) is within 100 metres of the underpass used by bats dispersing from their maternity site to the woodlands to the south of the A120.

The HMBG also notes that the ES page 198 states that the HMBG confirmed roosting activity within the wood but fails to state that the roosting site is a maternity site and therefore of high significance.

Bats emit ultrasonic calls to detect their prey by listening to the returning echoes and may also listen for the sounds generated by their insect prey. Traffic noise may mask these sounds.

There is also a risk of collision with motor vehicles. Work by Berthinussen and Altringham (2012) has shown that if forced to cross roads, most bats cross at heights that puts them in the paths of vehicles.

The proposed bypass is very close to Bloodhounds Wood, the disturbance created by the increased noise and light associated with the road is also very likely to impact on the bats roosting and flying within the vicinity of the wood.

Mitigation

Mitigation success is unpredictable and therefore the enhancement measures must be above the level required for compensation to increase the chances of success and retain the bat populations within the local area. The LPA must be sure that the scheme delivers certainty that the bat populations will not be adversely affected in accordance with their legal duty under the Habitats Directive and Conservation of Habitats and Species Regulations 2010. Wherever possible developments should aim to enhance the population of bats within the area. The 2012 National Planning Policy Framework (NPPF) states that the planning system should “minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government’s commitment to halt the overall decline in biodiversity”. The compensation must be sufficient to provide alternative suitable flight and foraging habitats. To allow for uncertainties in bat mitigation habitat enhancements should also include a programme of long term habitat management improvements designed specifically for bats.

Considerable research on bats and roads has been undertaken by John Altringham and colleagues such as Berthinussen, A and Altringham, J 2012, the affect of a major road on bat activity and diversity. J Appl Ecol 49:82-89; Berthinussen, A and Altringham, J 2015 Development of a cost effective method for monitoring the effectiveness of mitigation for bats crossing linear traffic infrastructure, DEFRA research report WC1060 and Altringham, J and Kerth, G, Chapter 3 of Bats and Roads. This work needs to be taken account of when considering the mitigation put forward for the A120.

Three ‘hop overs’ are proposed in the scheme that includes planting trees of at least 3 metres in height on bunds. The research to date by John Altringham and colleagues has shown that the effectiveness of hop overs is not known. Hop overs are more likely to be used if there is continuous tree cover with branches overhanging the road. The HMBG considers that it is unlikely that Highways would be in favour of leaving branches to overhang the road. The planting of semi-mature oak trees to replace those lost is welcomed but even with these taller trees to achieve sufficient tree height and cover along the new bypass will still be a long term process by which time the disturbed bats may be lost from the area.

The construction of underpasses suitable for bats is more likely to be successful than the hop over points suggested. The work by the HMBG has already demonstrated that barbastelles will use the existing underpass below the A120 and therefore it seems logical that similar sized underpasses should be provided along the route of the road.

The ARUP Bat Report suggests installing culverts along the A120 where the route crosses hedgerows. This suggestion is welcomed however the dimensions given

for the culverts (1.5 metre height) are too small. Although bats will fly through culverts, to encourage them to fly through, the culverts need to be tall enough to allow bats to fly through without changing flight height or direction. If the underpass is too small or not positioned or designed to be suitable for bats to fly through, the bats are more likely to fly over the road risking collision. Although the bat report indicates that more than one culvert suitable for bats should be installed the landscape strategy (November 2015) plan only shows one culvert to allow both bat and badger use under the proposed road between Cradle End Brook and Hadham Park Bridge. The HMBG suggests that taller underpasses should be used with an increase in number of underpasses placed along existing/probable flight lines. The ES proposes the planting of approximately 9.7km of native species hedgerow which is welcomed but to increase chances of successful use, hedgerows should be planted in advance of the construction of the underpass that provide linking habitat from existing flight routes. The underpasses must be designed to be favourable for bats flying through with no lighting. Preferably measures should be put in place to prevent bats from flying across the road where the underpasses are located.

The ARUP Bat Report states that the two roundabouts will be subject to lighting but gives no detail on the lighting to be used although this is given in the landscape strategy report. The Landscape strategy (November 2015) states that permanent LED lighting columns (10 metres in height) will be erected at the two roundabouts. LED lights certainly have advantages over the high sodium lighting previously used along A roads. LED lights do not emit UV radiation and are more controllable with a directional narrow beam that reduces light spillage although some backward light spillage will still occur. White LED lights however have strong emissions in the blue region of the colour spectrum. The "Bats and Lighting in the UK" report by the Bat Conservation Trust and the Institute of Lighting Engineers states that a wavelength of 590-660nm (narrow band amber coloured LED light) should be used to allow humans to see whilst minimising disturbance to the bats. It is particularly important that the lighting columns proposed for the east roundabout does not interfere with the barbastelle bats flying through the existing underpass near the roundabout. Measures to reduce disturbance to bats will therefore need to consider the: use of amber coloured LEDs, the fitting of luminaire accessories such as cowls to direct the light to where it is needed, limiting the times that lights are on and selected dimming of lights in sections used/likely to be used by bats. The NPPF 2012 also requires that decisions should limit the impact of artificial light pollution on nature conservation.

In summary the HMBG objects to the proposed A120 scheme in its current format due to insufficient information (survey, impacts and mitigation) to enable an evaluation to be made on the likely effects on the important bat populations within the area. The LPA must be sure that the scheme delivers certainty that the bat populations will not be adversely affected in accordance with their legal duty under the Habitats Directive and Conservation of Habitats and Species Regulations 2010.

CPRE Hertfordshire

Original consultation response

We note the amendments to the draft scheme in response to comments from a number of organisations and individuals, some of which address issues that we raised.

CPRE Hertfordshire nevertheless considers that there are likely to be direct adverse impacts arising from the use of the bypass on users of the A120 and local roads that intersect with the A120, between the proposed bypass and the A10, west of Little Hadham, and in particular at Standon and Puckeridge. In our view these impacts must be addressed and planned for in advance of completion of the proposed Little Hadham Bypass.

These impacts are recognised in the Transport 'Assessment', which at section 9.2 accepts that additional traffic will be attracted to A120 between A10 and Bishop's Stortford and that mitigation of the transport impact at one junction (Station Road, Standon) is likely to be necessary. We agree, but we are even more concerned about impacts at the A120/High Street junction, for which there are no alternative junctions for traffic to and from the southern part of Standon and the local route to Much Hadham. These impacts will result in particular from the changes to the character of traffic flows westbound on the A120 once the effect of the break in flow at the Little Hadham traffic lights is removed.

Furthermore, we consider that there are likely to be adverse socio-economic impacts on Standon and Puckeridge, not recognised by the Environmental Impact Assessment, as a result of the impact on traffic movements at all the existing junctions in Standon.

These concerns have previously been drawn to the attention of the County Council as Highways Authority by local organisations, because of the potential consequences for local road users and pedestrians arising from the unbroken flow of traffic between Bishop's Stortford and the A10, and we are disappointed that this is not reflected in the planning application.

In particular, paragraph 9.2.2.1 of the Transport 'Assessment', states that '*...should it be determined through monitoring post implementation of the Little Hadham bypass, that significant capacity issues have arisen, HCC will consider opportunities for providing interim mitigation at appropriate locations in the Standon area.*' This is a totally inadequate response to a predicted problem that would need to be resolved as soon as it occurs, and for which mitigation measures should then be implemented immediately, not at some indeterminate future date.

We therefore request that the Planning Authority includes conditions and any necessary Highways Agreement provisions when granting planning permission, to ensure that appropriate mitigation measures are implemented as soon as possible at the Station Road and High Street, Standon junctions.

Hertfordshire Gardens Trust

Original consultation response

Our comments on 23 July 2014 raised the issue of the significance of the heritage asset of Hadham Hall and historic landscape. (HHER 15993). HGT consider that

the importance of the views from Hadham Hall towards Bloodhounds and High Woods is a key component in the historic significance of the landscape. The proposed Hadham Park Bridge to the east of the bypass would cause significant damage to this view and thus the significance of the site as detailed in our letter of 23/7/14. We are aware of damage to the setting of Hadham Hall and landscape caused by this bypass, with noise, light pollution and visual intrusion from bunds and other bridges. However, the Hadham Park Bridge would cause such significant damage that HGT (as part of The Gardens Trust, statutory consultees) hereby register their objection. An underpass in this location would not cause the loss of significance that this bridge does.

Historic England

Original consultation response

Summary

Historic England's interest in this application primarily relates to potential impacts on designated heritage assets at, Mill Mound scheduled monument, grade I listed building Parish Church of St Cecilia, grade II* listed buildings Hadham Hall and Gatehouse Range at Hadham Hall 60m west of the Hall and Little Hadham's Conservation Area. The proposed development lies within the vicinity of these heritage assets and is likely to impact on their significance through change within their setting. The Environmental Statement (ES) concludes that there will be an overall benefit to the impact on the setting of most of these assets, however we consider that on balance there is likely to be some overall harm to their significance. We conclude that whilst there is likely to be some harm to the significance of these assets, due to the interruption of their setting, it is up to the Council to weight this harm against the public benefits of the proposal in line with paragraph 134 of the NPPF as part of the decision-making process. Any harm requires clear and convincing justification in line with paragraph 132 of the NPPF. Mitigation should also be appropriate to the level of harm experienced.

Historic England Advice

We have commented on this site previously as part of a public consultation in 2007, as part of a scoping consultation in 2014, and as part of pre-application advice in 2014 (our comments are dated 19th April 2007, 28th July 2014 and 2nd December 2014). Our comments have highlighted potential impacts on heritage assets and, in addition to our comments below, we would refer you to these previous responses as part of this consultation.

It is acknowledged that the ES uses the Design Manual for Roads and Bridges (DMRB) assessment into impacts on the historic environment. We advised against the use of this method of assessment in our letters dated 28th July 2014 and 2 December 2014. It was highlighted that we believe that the assessment criteria and the associated matrices of the DMRB provide little useful contribution to the assessment of impacts and tend to confuse concepts of significance, sensitively and magnitude of impact. They also do not take into account the fact that all designated heritage assets, regardless of grade, are of national importance. It is considered that the use of this method of assessment has led to the discrepancies in terms of the level of impact on the historic environment as highlighted below. The concerns are compounded when considering the possible down playing of the level

of harm, which will result in subsequent inadequate level of mitigation proposed. We recommend that the approach to assessing significance and setting follows the advice set out in our Good Practice Advice Notes 2 and 3 (<http://www.historicengland.org.uk/advice/planning/planning-system/>).

The designated heritage assets primarily affected by this application are situated at Mill Mound scheduled monument, grade I listed building Parish Church of St Cecilia, grade IT listed buildings Hadham Hall and Gatehouse Range at Hadham Hall 60m west of the Hall, a number of Grade II listed buildings and Little Hadham's Conservation Area. The above heritage assets have a strong rural setting and can be appreciated within the strong rural setting as there is little development to the north of the A120. There is also a public footpath (Hertfordshire Way) that runs from south to north, past Mill Mound and through the application site which reinforces this appreciation. The setting and surroundings of these heritage assets greatly contribute to their significance and relationship with one another. Significance is based on a range of heritage values that make up the overall architectural, artistic, historic and/or archaeological interest. As the NPPF makes clear, significance derives not only from a heritage asset's physical presence but also from its setting. The NPPF defines setting as the surroundings in which a heritage asset is experienced, and makes clear that impact on significance can occur through change within the setting of a heritage asset. Impact on the significance of these heritage assets is likely to arise from the intrusion of the bypass within the rural landscape and the increased urbanisation of their setting which will result. The landscape and setting will be experienced differently with the associated visual, audio and odours associated with new roads and will ultimately lead to an adverse impact on the setting of a number of heritage assets.

The ES submitted with the application outlines that the reduction in traffic in the village would have a moderate beneficial effect on the setting of many heritage assets. It is agreed that the reduction in traffic in the village would have a moderate beneficial effect on the setting of many heritage assets including Little Hadham Conservation Area and listed buildings whose primary aspect affronts the A120. The ES concludes that there will be a benefit to the setting of Little Hadham Conservation Area due to the reduction in traffic to its principle aspect and within the village generally. The ES acknowledges a level of harm to the setting as a result of the intrusion of the bypass in the landscape to the north east but considers that this harm would be outweighed by the benefits. I can advise that we agree with this assessment on balance.

In terms of the impact on scheduled monument Mill Mound, the ES concludes a moderate adverse effect due to the impact on the rural setting. The ES considers this can be mitigated through existing and additional planting. The ES concludes that impact is significant but does not lead to substantial harm as outlined within the NPPF. Given the distance of the development to the Mill Mound it is considered that there will be more than a moderate adverse effect due to the impact on the rural setting. It is acknowledged that a public footpath bridge is required to suspend over the cutting of the bypass. It is also acknowledged that additional planting is proposed to reduce the impact on the Mill Mound, which is welcomed, and it is queried whether the bridge can be moved further away from the Mill Mound and/or opportunity is taken to improve visitor interpretation of the site to further reduce mitigate impacts.

Turning to the impact on grade I Parish Church of St Cecilia, the ES concludes that there will be a slight beneficial impact on significance, due to a reduction of traffic from its principle setting. The ES recognises an adverse impact in terms of views to the north of the church but concludes a slight beneficial impact overall. However, it is considered that whilst there will be a slight benefit from the reduction of traffic in the village from its principle aspect, this benefit does not outweigh the harm which would derive from an impact to the wider setting as a result of the bypass intruding the landscape to the north west. We consider the ES should be revised in this respect.

In terms of the impact on grade II*listed buildings Hadham Hall and a Gatehouse Range 60m west of Hall the ES concludes that there will be a slight beneficial impact on significance, due to a reduction of traffic from its principle setting. The ES recognises an adverse impact in terms of views to the north of the cluster but consider the impact of the can be ameliorated with additional planting. As a result the ES concludes a slight beneficial impact overall. However, as above, whilst it is considered that whilst there will be a slight benefit from the reduction of traffic in the village from its principal aspect, this benefit does not outweigh the harm which would derive from an impact to the wider setting as a result of the bypass intruding the landscape to the north. We consider the ES should be revised in this respect.

The ES concludes that there will be a benefit to the setting of Little Hadham's Conservation Area due to the reduction in traffic to its principle aspect and within the village generally. The ES acknowledges a level of harm to the setting as a result of the intrusion of the bypass in the landscape to the north east but considers that this harm would be outweighed by the benefits. I can advise that we agree with this assessment on balance.

It is acknowledged that the ES outlines that a number of areas with archaeological potential were found within the geophysical survey. The ES concluded that the proposed scheme had low potential for substantial harm to archaeological remains. The likely remains are considered to be of medium value and could contribute to regional research objectives. In addition the ES outlines that there would be a slight adverse impact on a number of Grade II listed buildings including cluster to the south of the bypass at Hadham Park. We would advise that discussions take place with the County and District archaeologists and conservation officers with regard to acceptability and appropriate mitigation.

Based on the above considerations, there is likely to be a degree of harm to the significance of a number of heritage assets and it is considered that this harm has not been properly assessed within the ES in many instances. Whilst this harm would be less than substantial in our opinion, it would still need to be weighed against the public benefits of the proposal in line with paragraph 134 of the NPPF as part of the decision making process. Any harm requires clear and convincing justification in line with paragraph 132 of the NPPF. Mitigation should also be appropriate to the level of harm experienced.

Recommendation

Before any decision is made on this application, there is a requirement to weigh up any harm to heritage assets against the public benefits of the proposal. Any harm

requires clear and convincing justification in line with paragraph 132 of the NPPF. Mitigation should also be appropriate to the level of harm experienced.

Hertfordshire County Council – Historic Environment

Original consultation response

The scheme is located within an area known to possess a high potential for Roman and medieval remains, and also a more general potential for prehistoric settlement. The existing line of the A120 follows the line of Roman Stane Street, and has been a focus for settlement from at least the Roman period. Nationally important evidence of Roman pottery and tile production lies close to the road, at Bromley Hall, and a substantial linear earthwork in Caley Wood is probably a late Iron Age linear dyke that was once dominant in the landscape.

The development therefore has major historic environment implications, and this office recommended that in the Environmental Statement submitted with the application should be informed by the results of a geophysical survey of the route, and an archaeological evaluation, in order that any archaeological remains that could be a significant constraint on the project would be identified at an early stage. The results would also inform the programme of archaeological mitigation that will be required prior to, and potentially, during, road construction.

A geophysical survey of the route was carried out in 2014 which identified a limited number of probable archaeological features, including an enclosure of uncertain date, and also anomalies of uncertain origin (Appendix B, Environmental Statement). A programme of trial trenching, to test the results of the geophysical survey, was subsequently agreed, in September 2015. This has not yet been carried out, due to a combination of factors, and the results of this overall assessment are therefore not available to inform the ES.

While this is undesirable, and contrary to the advice previously provided by this Office, I note that it is stated in the ES (Volume i: Non-technical summary) that a programme of trial trenching ‘has been recommended, to be undertaken prior to construction’ and therefore, on balance, I recommend that the following provisions be made, should you be minded to grant consent for the development:

1. A programme of detailed archaeological field evaluation of the road corridor and associated sites (site compounds, temporary access, etc.) via trial trenches, based on the results of the geophysical survey. This should be undertaken at the earliest opportunity and prior to any construction.
2. And such appropriate mitigation measures indicated as necessary by the results of the evaluation.

These may include:

- a) the preservation of any archaeological remains *in situ*, if warranted, via amendment(s) to the design of the development, or construction methods

- b) the appropriate archaeological excavation of any remains before any development commences on the site, with provisions for subsequent analysis and publication of the results
- c) the archaeological monitoring and recording of the ground works of the development, including associated works for site compounds, landscaping, access, etc. (and also including a contingency for the preservation or further investigation of any remains then encountered)
- d) the analysis of the results of the archaeological work with provisions for the subsequent production of a report and an archive, and the publication of the results, as appropriate
- e) such other provisions as may be necessary to protect the archaeological interests of the site.

3. The placement of a groundworks condition on consent, to ensure that a detailed methodology is agreed and approved by the Planning Authority, in order to mitigate the impact of the development upon any archaeological remains present, that may be worthy of preservation in situ.

I believe that these recommendations are both reasonable and necessary to provide properly for the likely archaeological implications of this development proposal. I further believe that these recommendations closely follow para. 141, etc. of the National Planning Policy Framework, relevant guidance contained in the National Planning Practice Guidance, and in the recently issued Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015).

In this case appropriately worded conditions on any planning consent would be sufficient to provide for the level of archaeological investigation that this proposal warrants. I suggest the following wording:

A *No demolition/development shall take place/commence until an Archaeological Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of archaeological significance and research questions; and:*

1. *The programme and methodology of site investigation and recording*
2. *The programme for post investigation assessment*
3. *Provision to be made for analysis of the site investigation and recording*
4. *Provision to be made for publication and dissemination of the analysis and records of the site investigation*
5. *Provision to be made for archive deposition of the analysis and records of the site investigation*
6. *Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.*

B *The demolition/development shall take place/commence in accordance with the programme of archaeological works set out in the Written Scheme of Investigation approved under condition (A)*

C *The development shall not be occupied/used until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis and publication where appropriate.*

If planning consent is granted, I will be able to provide detailed advice on the requirements for the investigations and provide information on professionally accredited archaeological contractors who may be able to carry out the investigations. Please allow 5-10 working days for consideration of any submitted archaeological Written Scheme of Investigation.

I hope that you will be able to accommodate the above recommendation.

Further consultation response

Having reviewed the additional documents and plans I can confirm that our advice concerning the historic environment implications of the development remains largely unchanged (advice dated 13/1/16).

As previously notified, a geophysical survey of the route was carried out in 2014 which identified a limited number of probable archaeological features, including an enclosure of uncertain date, and also anomalies of uncertain origin, within the road corridor (Appendix B, Environmental Statement). A programme of trial trenching, to test the results of the geophysical survey, was subsequently agreed, in September 2015, but had not been carried out when we commented on this application in January 2016.

I am now able to confirm that this trial trench evaluation of the road corridor took place in September 2016, and, although the trenching comprised only a very low percentage sample of the route, it did identify three foci of later prehistoric and Roman settlement activity, including two enclosures. Two further sites identified probably represent later prehistoric clay extraction pits.

A draft report on this archaeological evaluation is currently being revised by the archaeological contractor, Cotswold Archaeology but once approved by this office, can be submitted to the Planning Authority (as per the Environmental Statement. Volume i: Non-technical summary)

The results of the limited programme of trial trench evaluation carried out confirm that an appropriate programme of detailed archaeological field evaluation of the road corridor and associated sites should be undertaken well prior to road construction, in order that any archaeological remains that might be a significant constraint on the project can be identified at an early stage. The results can also inform the programme of archaeological mitigation that will be required prior to, and potentially, during, road construction.

I therefore recommend that the following provisions be made, should you be minded to grant consent for the development:

1. A programme of further, detailed, archaeological field evaluation via trial trenches of the road corridor and associated sites (such as site compounds, temporary access, bridges, embankments, the new under-pass, etc.), based on the results of the geophysical survey and the programme of trial trench evaluation carried out in September 2016, prior to any preparatory works, or road construction, taking place.
2. And such appropriate mitigation measures indicated as necessary by the results of the evaluation.

These may include:

- a) the preservation of any archaeological remains *in situ*, if warranted, via amendment(s) to the design of the development, or construction methods
 - b) the appropriate archaeological excavation of any remains before any development commences on the site, with provisions for subsequent analysis and publication of the results
 - c) the archaeological monitoring and recording of the ground works of the development, including associated works for site compounds, landscaping, access, etc. (and also including a contingency for the preservation or further investigation of any remains then encountered)
 - d) the analysis of the results of the archaeological work with provisions for the subsequent production of a report and an archive, and the publication of the results, as appropriate
 - e) such other provisions as may be necessary to protect the archaeological interests of the site.
3. The placement of a groundworks condition on consent, to ensure that a detailed methodology is agreed and approved by the Planning Authority, in order to mitigate the impact of the development upon any archaeological remains present that may be worthy of preservation *in situ*.

I believe that these recommendations are both reasonable and necessary to provide properly for the likely archaeological implications of this development proposal. I further believe that these recommendations closely follow para. 141, etc. of the National Planning Policy Framework, relevant guidance contained in the National Planning Practice Guidance, and in the Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015).

In this case appropriately worded conditions on any planning consent would be sufficient to provide for the level of archaeological investigation that this proposal warrants. I suggest the following wording:

A No demolition/development shall take place/commence until an Archaeological Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of archaeological significance and research questions; and:

1. *The programme and methodology of site investigation*

2. *The programme and methodology of site investigation and recording as suggested by the archaeological evaluation*
3. *The programme for post investigation assessment*
4. *Provision to be made for analysis of the site investigation and recording*
5. *Provision to be made for publication and dissemination of the analysis and records of the site investigation*
6. *Provision to be made for archive deposition of the analysis and records of the site investigation*
7. *Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.*

B *The demolition/development shall take place/commence in accordance with the programme of archaeological works set out in the Written Scheme of Investigation approved under condition (A)*

C *The development shall not be occupied/used until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis and publication where appropriate.*

With regard to the groundworks condition, I would welcome the opportunity to comment on its wording.

If planning consent is granted, I will be able to provide detailed advice on the requirements for the investigations and provide information on professionally accredited archaeological contractors who may be able to carry out the investigations. Please allow 5-10 working days for consideration of any submitted archaeological Written Scheme of Investigation.

Hertfordshire County Council – Flood Risk Management

Original consultation response

The drainage strategy prepared by Arup, dated 11th of November 2015, project number 235086-ARP-ZZ-ZZ-RP-CD-00001 submitted to the LPA presents an acceptable drainage strategy. The proposed development site can be adequately drained and mitigate any potential existing surface water flood risk if carried out in accordance with the overall drainage strategy.

The drainage strategy details an assessment of the potential increase in flood risk and how to manage the increase in run-off rates, volumes and overland flows. The applicant has demonstrated an appropriate sustainable drainage scheme can be implemented in accordance with industry best practice, prioritising on surface drainage methods such as swales, ponds and filter drains; which provide adequate storage, water quality treatment and where possible biodiversity benefits.

The drainage strategy has been shown on a layout plan along with the corresponding detailed surface water calculations of each SuDS scheme and the drainage strategy provides evidence of a clear management and treatment train for the SuDS system.

LLFA position

We would recommend to the LPA that outline planning permission could be granted to the proposed development if the following planning condition is implemented as set out below.

Condition 1

The development permitted by this planning permission shall be carried out in accordance with the approved drainage strategy carried out by Arup, dated 11th of November 2015, project number 235086-ARP-ZZ-ZZ-RP-CD-00001 and the following mitigation measures detailed within the drainage strategy:

1. Limiting the surface water run-off generated by the 1 in 100 year + climate change critical storm so that it will not exceed following rates:
 - a. Catchment 1: 11.6 l/s
 - b. Catchment 2a: 2.43 l/s
 - c. Catchment 2b: 0.69 l/s
 - d. Catchment 3: 7.62 l/s
 - e. Catchment 4a: 4.35 l/s
 - f. Catchment 4b: 11.43 l/s
 - g. Catchment 5: 4.16 l/s
 - h. Catchment 6: 6.39 l/s
 - i. Catchment 7: 9.6 l/s
2. Discharge into the following watercourses:
 - a. Catchments 1, 2a and 2b: Albury tributaries
 - b. Catchments 3, 4a and 4b: River Ash
 - c. Catchments 5 and 6: Cradle End Brook
 - d. Catchment 7: Bury Green Brook
3. Undertake the drainage to include swales, ponds and filter drains as indicated in Appendix E of the drainage strategy.
4. Providing a total attenuation volume of 4402 to ensure no increase in surface water run-off volumes for all rainfall events up to and including the 1 in 100 year + climate change event. The minimum attenuation volume to be provided in each catchment as follows:

- a. Catchment 1: 881 m³
- b. Catchment 2a: 183 m³
- c. Catchment 2b: 50 m³
- d. Catchment 3: 580 m³
- e. Catchment 4a: 326 m³
- f. Catchment 4b: 869 m³
- g. Catchment 5: 314 m³
- h. Catchment 6: 484 m³
- i. Catchment 7: 797 m³

The mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the local planning authority.

Reason

To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.

Informative to the LPA

The LPA will need to satisfy itself that the proposed underground surface water attenuation features can be maintained for its lifetime and we recommend the LPA obtains a maintenance and adoption plan from the applicant.

Hertfordshire County Council – Landscape

Original consultation responses

Landscape Policy & Guidelines

National Planning Policy Framework

The NPPF promotes the conservation and enhancement of the natural environment and good design, ensuring that developments respond to local character and are visually attractive as a result of good landscape design.

Conclusion

Overall the proposed development results in **permanent significant adverse landscape and visual effects**. This is largely due to the contrived and urban nature of the scheme imposed within a rural landscape.

In determining the significance of landscape and visual effects, some judgements of sensitivity and magnitude have been underestimated. Furthermore the siting and design of several potentially highly visible components of the scheme has not been resolved, these components are likely to increase the magnitude of change and the overall significance of effects that in turn could influence the requirement for mitigation measures.

Opportunities for landscape mitigation have been identified however the extent to which many will actually be realised is yet to be decided. The landscape strategy has sought to introduce new planting wherever possible however the opportunity for on-site mitigation is severely compromised by the tight site boundary, and large areas of flood banks that cannot be planted. With this in mind the opportunity for off-site mitigation potentially has an important role to play in providing compensation, however this has been dismissed.

In conclusion, the proposed development results in **permanent significant adverse landscape and visual effects** and is therefore not supported in principle. However in the event that, on balance of all planning considerations, the proposal is approved, then it is considered that the proposed landscape mitigation strategy is the most effective it can be within the constraints of the tight site boundary, and large areas of flood banks that cannot be planted.

Landscape and Visual

Planning Statement

At the inception of the design process, in setting out the case for the proposed scheme and the consideration of options, transport issues, flood alleviation and improving the environment of Little Hadham appear to be the key considerations. Disappointingly the effect of the proposal on the wider natural environment does not appear to be a consideration until much later in the process at the detailed design of Option 5. This has resulted in a scheme that appears contrived within the landscape.

It is vital that the natural environment is considered at the inception of the design process and the development of options, to ensure that adverse landscape and visual effects can be avoided as far as possible, resulting in a scheme that is 'best fit' for its environmental context.

The document refers to the site context as "*semi-rural*" in nature however this is not correct, as semi-rural is reference to an area that is more suburban in character. The area is rural and is therefore likely to be more sensitive than a semi-rural area to this type of urban development; this should be reflected in the landscape/visual baseline against which the effects of the proposed development are measured. For example 9.6.2.3 Visual Receptors characterise views from residences across their gardens into the agricultural landscape beyond as semi-rural, potentially lowering their sensitivity to the proposed urban development, resulting in an overall lower significance of effects.

ES Volume II: Environmental Impact Assessment (EIA)

EIA Scoping (5.2)

At the scoping stage HCC requested that off-site landscape mitigation should be considered however this was dismissed as “*not practicable*” This is disappointing, especially considering that the provision of on-site landscape mitigation is severely compromised due to the constraints of a tight site boundary, and large areas of flood attenuation embankment that cannot be planted.

Landscape (9)

Landscape and Visual Effects (9.4.1)

The assumption that any landscape and visual effects assessed as being moderate or above are considered significant reflects best practice and is therefore fully supported.

Transport (9.6.2.5)

Albury Road is judged to be of low sensitivity, however it is suggested that due to its rural character and recreational users, it should be low – moderate.

Assessment of Effects (9.7)

Construction (9.7.1)

The landscape and visual effects during the construction phase have been assessed. Despite identifying several **significant adverse** landscape and visual effects, it is concluded that “*no specific construction mitigation to reduce landscape and visual effects has been identified.*”

Landscape Effects (9.7.2.1)

With regards Wareside/Braughing Uplands the overall significance of effect is judged as neutral, however this should be neutral/slight (in line with the methodology set out in Appendix C).

With regards Upper Ash Valley the measure of the magnitude of change is not consistent with the methodology, it is suggested that the overall significance of effect should be moderate/large (not moderate).

Visual Effects (9.7.2.2)

There is concern that the photomontages do not illustrate components such as signs, lighting/CCTV columns, or deer fencing. Due to their vertical nature these are potentially highly visible aspects of the proposed development, especially across elevated and exposed sections of the scheme.

The document states that “*it will, however, be important to consider the potential location of these components when considering the potential impacts of the scheme.*” It is questioned how this can be achieved where the siting and design of components has not been confirmed, see also comments under Operation 9.8.2 and Landscape Strategy.

Mitigation of Effects (9.8)

Operation (9.8.2)

With regards Deer Fencing, there is concern for the statement that it will be “*predominantly screened from views from outside of the proposed scheme.*” The

Landscape Strategy clearly states that the fence specification and location is yet to be decided. It is advised that until the siting and design of the deer fence is confirmed, its effect on views cannot be determined.

Conclusion

There is no overall conclusion offered in the ES. Importantly it is not clear how the findings of the landscape and visual assessment have helped to shape the proposed scheme design, with the exception of the amendments to the western tie in. For example, a brief analysis shows that the most significant adverse visual effects are experienced by receptors to the east, south and west of the new road, it would therefore follow that a more robust mitigation strategy is implemented to reduce the impact upon these areas.

The Landscape Strategy does acknowledge that the landscape mitigation measures have been developed in response to the landscape and visual effects identified in the ES (see comments under Landscape Strategy), again this lacks any further detail.

The ES Volume I: Non-technical Summary provides an overview of the EIA findings and concludes that the proposed development results in **permanent significant adverse landscape and visual effects**. This conclusion is fully supported.

Landscape Strategy (LS)

It is evident from the LS that many key aspects of the scheme design have not been decided or fully resolved. The siting and design of aspects such as are likely to have a landscape and visual effects.

Opportunities and Constraints (2.3)

The LS sets out a suite of landscape opportunities and there is strong concern that many of the opportunities will not actually be realised, see comments below.

Opportunities

Careful route alignment and sensitive ground modelling – It is understood that there have been amendments to the western tie in, however the majority of the route has not been aligned in respect of landscape character; indeed it is a contrived arc that cuts across the Albury and Ash valley landscapes, and fragments the field pattern.

With regards ground modelling, the flood attenuation banks, embankments, cuttings and noise bunds, it is queried how these have been designed “*sensitively*,” especially where they cut across the Albury and Ash valley landscapes.

Hedgerow, tree and shrub planting – The proposed planting strategy has sought to establish new planting wherever possible, however overall it remains severely compromised by a tight site boundary, and large areas of flood attenuation embankment that cannot be planted.

A strong rationale underpins the planting strategy, based on local landscape character, for example the number, spacing and frequency of hedgerow trees varies as you move between the lowland valley and the upland landscapes.

Sustainable urban drainage – There is concern for the statement that “*well modelled attenuation ponds can complement the river valley characteristics.*” It is queried how this can be achieved, indeed the landscape strategy shows standard engineered attenuation ponds with banked edges in places and grass cover, that do not reflect the wider landscape character.

Bridge design finishes - The bridge design has been explored and it is agreed that, out of the options put forward, a three span bridge is the preferred option.

With regards bridge finishes an opportunity for finishes “*to respect the local landscape character and incorporate local materials*” has been identified, however the strategy goes to confirm that finishes are yet to be decided and refers to concrete finishes or cladding where necessary.

Arboriculture Development Report

The report states that 30 no trees, 6 no groups and 13 no partial groups will be removed. Where the removal of any tree is unavoidable its loss should be compensated for with new tree planting. In general it is recommended that for each tree removed, two new replacement trees should be planted within the site, it is anticipated that the proposed development will deliver far in excess of this amount.

Ramblers Footpath Secretary – Bishop’s Stortford

Original consultation response

The proposed bypass will bisect or affect the following Public Rights of Way, Footpath Little Hadham 57, Footpath Little Hadham 58, Bridleway Little Hadham 35, Bridleway Little Hadham 36 and Footpath Little Hadham 34.

I am satisfied with the proposals for Bridleways 35 and 36.

I have other comments/suggestions and concerns on the remaining PROW, as follows:-

Footpath 57.

This will be diverted to link with Footpath 55. An improvement would be to extend Footpath 57 westward on the north side of the A120 to link up with Footpath Albury 21. Currently anyone wishing to walk from Footpath 55 to Footpath 21 is required to walk on the verge. Although theoretically this is a wide verge in practice it is overgrown in places requiring one to walk in the road.

Footpath 57 and Footpath 58.

These are proposed to be diverted to cross the new bypass, either by a pedestrian refuge, or via the flood defence / spillway under the A120. I understand that under normal conditions people will be able to use the underpass where they will be separated by a retaining wall. (The dual use underpass is a good idea.) Only in

extreme conditions will they be unable to use the underpass, where it will perform its primary role in preventing flooding of the A120. Given the extreme conditions experienced in Yorkshire and Cumbria it is becoming evident that current definitions of a 1 in a 100 occurrence may no longer be accurate and need to be revised. To avoid problems in the future I would suggest that whatever factors have been assumed they should have an added factor, maybe significantly higher than the current built in contingency that may have been allowed.

Footpath 34.

Footpath 34 is part of the Hertfordshire Way, and is a popular and well-used long distance trail. Currently Footpath 34 joins Bridleway Bishops Stortford 18 via an underpass, without crossing the A120. The proposal is to divert Footpath 34 so that it crosses the A120 via an uncontrolled pedestrian crossing. Due to its current use as part of the Hertfordshire Way, and for the safety of users, I believe Footpath 34 should be diverted via an underpass and not over the A120 as proposed.

Affinity Water

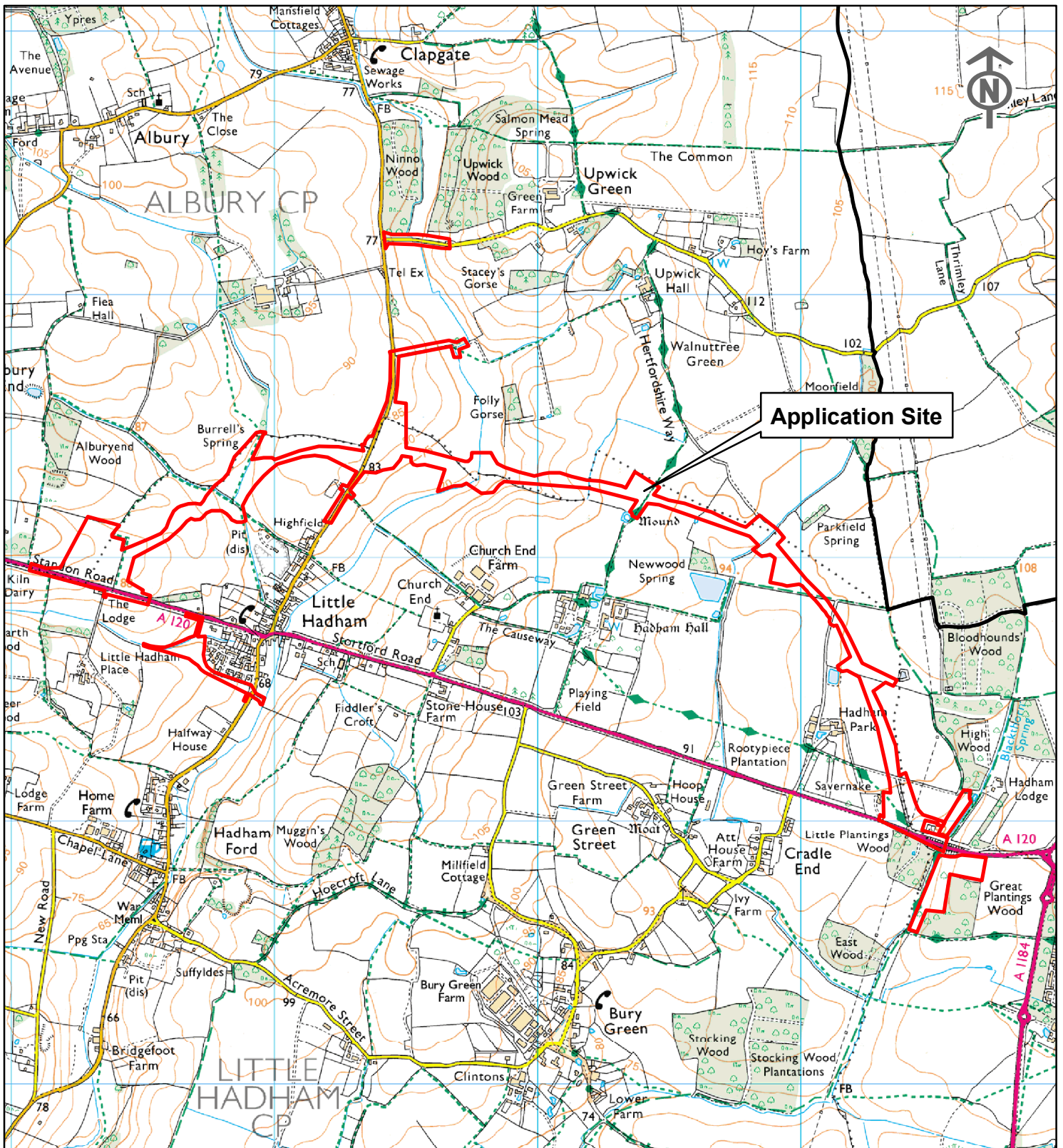
Original consultation response

Planning applications are referred to us where our input on issues relating to water quality or quantity may be required.

You should be aware that the site is located within the groundwater Source Protection Zone (SPZ) of Causeway Pumping Station. This is a public water supply and comprises of a number of chalk boreholes operated by Affinity Water Ltd.

The construction works and operation of the proposed development site should be done in accordance with the relevant British Standards and Best Management Practices, thereby significantly reducing the groundwater pollution risk. It should be noted that the construction works may exacerbate any existing pollution. If any pollution is found at the sites then the appropriate monitoring and remediation methods will need to be undertaken.

For further information we refer you to CIRIA Publication C532 "Control of water pollution from construction - guidance for consultants and contractors".



DEVELOPMENT CONTROL COMMITTEE

Date: Wednesday 21st December 2016

Proposed 3.9km northern bypass of the A120 and flood alleviation scheme. comprising a new 9.3m wide single carriageway road, verges, roundabout junctions (including lighting), bridges, embankments, drainage, landscaping and associated engineering at A120, Land north of Little Hadham

0 210 420 630 840 1,050 1,260 1,470 1,680 1,890

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HERTFORDSHIRE COUNTY COUNCIL
DEVELOPMENT CONTROL COMMITTEE
WEDNESDAY, 21 DECEMBER 2016 AT 10.00 AM
DISTRICT: HERTSMERE BOROUGH

Agenda Item No

2

**PLANNING APPLICATION (0 / 0815-16 CM0888) FOR PROPOSED
EXTENSION TO EXISTING BUILDING TO ENCLOSE GREEN WASTE
COMPOSTING ACTIVITIES AT REVIVA COMPOSTING LTD, ELSTREE
HILL SOUTH, ELSTREE, HERTFORDSHIRE WD6 3BL**

Report of the Chief Executive and Director of Environment

Author: Felicity J Hart, Principal Planning Officer (Tel: 01992 556256)

Local Member: Caroline Clapper

1. Purpose of Report

1.1 To consider application no. 0/0815-16 (CM0888). This is an application submitted by Reviva Composting Ltd for a large extension to the existing building on their green waste composting site at Elstree Hill South. The site was previously granted planning permission in 2011 for change of use to a green waste recycling and composting operation, erection of a building and the siting of temporary structures including skips, machinery and a portaloo.

2. Summary

2.1 This application has been submitted due to a requirement of St Albans Magistrates Court. This followed Hertsmere Borough Council issuing an Abatement Notice which was appealed. The notice prohibited the statutory nuisance and required the owner to prevent the recurrence of the statutory nuisance as soon as reasonably practicable and in any event within 90 days of the date of the notice.

2.2 The Notice was appealed by the applicant and after the hearing at St Albans Magistrates' Court in June 2016 the Notice was amended to require the applicant to submit a full planning application to HCC to extend the existing building in order to house green waste recycling activities. The applicant was also required to use their best endeavours to secure the grant of planning consent, and to pursue any necessary appeals.

2.3 This application is therefore for the erection of a large extension to the east side of the existing building. The proposed extension would extend the existing building to the east and would measure 91m x

45.7m with a height to the ridge of 10 m. The existing building measures 49.2m x 45.7m.

- 2.4 No increase in quantity of material to be processed is proposed, nor would there be any increase in vehicle movements, nor change to the hours of operation.
- 2.5 The site is situated in the Metropolitan Green Belt and there is a general presumption against inappropriate development which by definition is harmful to the Green Belt. This proposal is considered to be inappropriate development. The applicant has, however, put forward very special circumstances that they consider, as to why planning permission should be granted. A full assessment of these very special circumstances has been undertaken, however, the main harm identified is that of odour together with impact on openness in the Green Belt.
- 2.6 The applicant's view is that the erection of the extension to the building would be to facilitate the 'outdoor' part of the operation being conducted indoors which, it is claimed would have the effect of significantly reducing any odour nuisance potential and therefore improve the amenity and protect human health within the area

3. Conclusion

- 3.1 It is concluded that the proposed development should be refused planning permission.
- 3.2 The proposal constitutes inappropriate development in the Green Belt for which no very special circumstances have been demonstrated that would override harm and harm to the Green Belt. The proposed development is therefore contrary to The Hertfordshire Waste Development Framework (HWDF), Waste Core Strategy, Policy 6 and advice set out in the National Planning Policy Framework (NPPF), the National Planning Policy for Waste (NPPW) and policies SP1, CS12 & CS13 of Hertsmere Core Strategy. The development would cause substantial harm to the Green Belt by reason of its visual appearance, bulk and scale and the encroachment of its built form into the countryside resulting in its loss of openness and the development would fail to conserve the natural environment that surrounds the site.
- 3.3 The proposal would have an adverse effect on the local area, due to the siting, scale and design of the building being inappropriate for its location. The application has not demonstrated that the proposed operation of the site (with indoor housing of waste activities) would not adversely impact upon the amenity and human health of local residents due to the potential for odour from the site. Therefore the proposal is contrary to Policy 11 of the HWDF 'General Criteria for Assessing Waste Planning Applications' the NPPW and the NPPF.

- 3.4 The application has not demonstrated that the site will not increase flood risk to the site and elsewhere, nor that it can provide appropriate sustainable drainage techniques. Therefore the proposal is contrary to Policy 16 of the Hertfordshire Waste Development Framework, Soil, Air and Water, Hertsmere Policy CS16 Environmental Impact of Development, the National Planning Policy Framework and the National Planning Policy Guidance.

4. Description of the site and existing and proposed development

- 4.1 The application site comprises approximately 2ha of land situated to the south of Elstree village centre and immediately to the north of the A41 and M1 junction. It is currently used for green waste composting following planning permission being granted for that use in 2011. The site is situated in the Metropolitan Green Belt.
- 4.2 The application proposes the erection of a large extension to an existing building on the site measuring 91m x 47.5m with a height to the ridge of 10m. It would stretch across the northern part of the site and would fill the bulk of the site area, leaving some open site area to the east and south of the building.

Current Operations

- 4.3 The current composting operation at the site sources material from local landscape gardening companies, waste transfer stations and Local Authority Household Waste Recycling Centres. There is a customer base that includes over 400 small businesses that rely on the site for the deposit of green waste from their trade. The applicant has an OMP (Odour Management Plan) which is approved by the Environment Agency.
- 4.4 Currently a large portion of the composting operation takes place out in the open. The original planning application showed a series of rows of composting material (windrows) in which this would take place. The current planning application now proposes that this material should be housed inside the building if planning permission is granted.
- 4.5 The St Albans Magistrates' Court determined that in order to prevent the recurrence of the statutory [odour] nuisance a full planning application to extend the existing building was required.
- 4.6 Currently the site accepts green waste material delivered on small transit type vans or HGVs. The vehicles enter the site via a weighbridge and each driver is questioned by trained weighbridge staff to determine the description, nature and source of the waste they are delivering. All details of the registered waste carrier and the waste type are recorded on a weighbridge ticket. Unacceptable loads carrying contaminated wastes are rejected at the weighbridge. Currently those accepted are then directed to an outdoor waste reception area.

- 4.7 The applicant states that the material in the waste reception area is always processed as quickly as possible, often within a few hours and that material is not kept unprocessed for longer than 7 days.
- 4.8 The applicant states that currently the green waste material is shredded outdoors using a slow speed shredder and then shortly afterwards the shredded material is moved into the existing building for sanitisation, screening and maturation. This shredded material is then formed into a windrow on the external pad to form a 'batch'. The batch is then moved inside the enclosed building within a maximum of 7 days. The application states that the existing building is odour controlled in that it is fully enclosed and there is an odour suppression system as well having a biofilter installed, although there is also a large door to provide access. The application also states that the current building has a fan which is designed to pull any vapours emitted from within the building to an outlet in the rear gable wall of the building.
- 4.9 In the current operation of the site the windrow is transferred into a composting bay within the building where it is actively monitored for temperature and moisture levels to ensure optimum composting conditions. Each windrow is turned twice within a period of 7 days to achieve even temperature distribution. This is known as the sanitisation phase. Both this phase and the stabilisation phase are carried out within the existing purpose built building. The application states that the current building is ventilated with an extraction fan, which changes the air three times per hour and treats the air through a biofilter.
- 4.10 After the stabilisation process has taken place, the material is screened inside the existing building. This separates the material into different size fractions, and removes any contamination.
- 4.11 The final product produced is compost produced to PAS100 standard endorsed by the Environment Agency. The high grade 10mm compost is stockpiled in the open for a further 2 weeks, this is known as the maturation phase. There are then 2 final output streams; a 0-10mm product which is sold predominantly in 1 tonne bags to the domestic market and a coarser 10-40mm product which is sold to farmers as a soil conditioner and fertiliser.

The proposal and proposed operations

- 4.12 The applicant maintains that all Best Practicable Means (BPM) have been employed to reduce the potential for odour over the last five years. However, despite the best endeavours of the applicant to control odour emissions, the local community consider that there is an unacceptable odour issue emanating from the site and consistently lodge complaints with the Local Authority and the Environment Agency.

- 4.13 As a result of the complaints and the order of St Albans Magistrates Court this planning application has been submitted. The site does not seek to increase the overall throughput of green waste at the site (this is restricted to a maximum of 78,000 tonnes per annum via condition on the original planning permission). This proposal seeks to enclose the majority of existing site waste activities inside a large building in order to try to abate most of the possible odour nuisance generated as a result of the composting process. The large building proposed would be attached to the existing building and would have a similar appearance.
- 4.14 The application states that there are no unacceptable environmental impacts and that the very nature of the application is designed to **reduce** impacts and emissions associated with the composting process. By housing the site activities inside the building it is proposed by the applicant that it will have the effect of reducing the potential for odour, noise, vibration and dust. The applicant considers that the development is sustainable and meets policy objectives.

5. Planning History

- 5.1 0/0375/09 - Change of use of land to green waste composting and erection of building - refused planning permission May 2009
- 0/1816/09 – Change of use of land to green waste composting and erection of building – Planning permission granted January 2011.

6. Consultations

- 6.1 **Hertsmere Borough Council – Environmental Health**
It is commented that in 2011 Hertsmere Borough Council (HBC) referred to the possible detrimental impact that this proposed site could have on the area if planning permission was approved due to the potential increase in air pollution, noise and odour. Composting does have the potential when not properly controlled to cause environmental pollution, harm to human health and nuisance through odours, leachate and potentially harmful bio aerosols. On 9 December 2015 HBC served an Abatement Notice upon the operator due to the intensity, frequency and duration of odour nuisance from the composting site on residents in the area. The Notice was appealed and by order of the Magistrates Court the operator was required to submit a full planning application to extend the existing building in order to house green waste recycling activities.
- 6.2 Whilst HBC Environmental Health Department welcomes this planning application as a possible way forward for the operator, the application has failed to provide any detail as to how the odour will be abated by the new extension. The Council would expect the application to give a more detailed robust, technical assessment on how this new building is going to contain the odour and ensure that no odour is detected

beyond the boundary of the site. We are concerned that the movement of the green waste material into and out of the building will still have the potential to cause odour.

- 6.3 HBC notes from the Working Plan that not all of the waste recycling activities will be taking place inside the building. The green waste reception area for Non-HGV vehicles is located outside the building together with the oversize storage and finished compost stockpile.
- 6.4 Hertsmere Borough Council Environmental Health Department objects to this application on the grounds that there are no detailed technical assessment to justify the new extension and demonstrate that the odour will be contained and some of the green waste activities which have the potential to cause odour are shown on the Working Plan as taking place outside the building.
- 6.5 It is further noted that the site is within Hertsmere Borough Council's Green Belt, as defined within SADM23, with the result that both national and local policies restrict all new development which is harmful to the openness and purposes of keeping land within the Green Belt. Further that the site has planning permission for the processing and recycling of green waste but it is apparent from the Council's records on the site that the operations on site are not being carried out in accordance with requirements of this permission.
- 6.6 This application seeks to erect a substantial extension (4182m²) to an existing building within the site. The substantial extension of the existing building on the site is proposed by the operator of the site to reduce harm being caused by the waste processing activity on site. It is considered that the proposed development does not result in a material change of use of the site. As the proposed development relates to the erection of a considerable extension of an existing building within the Green Belt it is important that the development is assessed against Paragraph 89 of the National Planning Policy Framework (NPPF). This is because this paragraph provides within it provisions for the erection and extension of buildings within the Green Belt as long as they comply with the relevant conditions found within this paragraph. Paragraph 89 of the NPPF states:

“A local planning authority should regard the construction of new buildings as inappropriate in the Green Belt. Exceptions to this are:

- *buildings for agriculture and forestry;*
- *provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it;*

- *the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;*
- *the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;*
- *limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan; or*
- *limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.”*

As the development proposed by this application relates to the construction of an extension of an existing building it is considered in accordance with the relevant parts of Paragraph 89 (above) that this development needs to be assessed against indent three and indent six. As the proposed development would result in an unequal extension to the original building with an increase of over 100% of its original size (both in terms of volume and area) it is considered that this development results in a disproportionate addition which over and above the size of the original building. As a result it is considered that this proposal does not comply with requirements within indent 3 of Paragraph 89. Given that the proposed development would result in the infilling of the site it is considered that it should be assessed against indent 6 of Paragraph 89 as well. As indent 6 allows for limited infilling of a site where it does not result in a greater impact on the openness of the Green Belt and the purpose of including land within the Green Belt it is important to assess the development against these criteria. With regards to openness this is about the physical permanence of the extended building. The proposed extension of the existing building on the site would result in a significant increase of the built form on the site. This development would therefore considerably increase the built physical presence on the land compared to what is currently on the site and, as such, would fail to preserve the openness of the Green Belt.

- 6.7 The Framework states at Paragraph 80 that the Green Belt serves five purposes: *to check the unrestricted sprawl of large built-up areas; to prevent neighbouring town merging into one another; to assist in safeguarding the countryside from encroachment; to preserve the setting and special character of historic towns; and to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.* The application site is not located within a large built up area and is not within close proximity of a historic town. The nature and location

of the development would also ensure that the extension of the building on the site does not result in neighbouring towns merging into one another and the development would not fail to assist in urban regeneration, by encouraging the recycling of derelict and other urban land. However, the development spreads a substantial amount of additional built form into the site. As such, the proposal fails to assist in the safeguarding of the countryside from encroachment, contrary to bullet point three of paragraph 80 of the Framework.

As such, it is considered that the development proposed by this application represents inappropriate development within the Green Belt because it fails to meet the requirements set out within Paragraph 89 for operational development which may be appropriate within the Green Belt.

6.8 At Paragraph 88 of the Framework states;

“When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.”

Accordingly substantial weight has been afforded to the harm to the Green Belt by virtue of the inappropriate nature of the proposed development. Therefore as with previous Green Belt policy inappropriate development is, by definition, harmful to the Green Belt and paragraph 87 of the Framework states that it should not be approved except in very special circumstances.

6.9 Hertsmere Borough Council notes that the Planning Statement which accompanies this document states that the very special circumstances for this development are locational need, the lack of available land for this activity outside the Green Belt and the fact that construction of the new building will result in a reduction in odours emanating from the site. It is important to note that no evidence accompanies these assertions and it is therefore difficult to assess the validity of them. As a consequence it is considered that little weight can be attached to them and that they do not amount to very special circumstances which would overcome the substantial harm caused to the Green Belt by this proposal. Further to the harm already identified to the Green Belt, it is considered that the proposed extension to the building on the site would fail to conserve or enhance the natural environment of the borough because it would considerably increase the size of an existing building on the site by more than doubling its size. As a consequence the development would fail to conserve or natural environment that surrounds the site with the result that it would be contrary to Policy SP1 & Policy CS12 of the Council Core Strategy.

- 6.10 An overall balancing exercise required. It is considered that the proposal would cause harm to the Green Belt by reason of inappropriateness. It would cause harm to the openness of the Green Belt and would result in the encroachment of built form into the countryside, conflicting with one of the five purposes of including land within the Green Belt. Given the size of the extension it is considered that it is a disproportionate increase of the original building. To these factors it is considered that substantial weight should be attached.
- 6.11 Taking all matters into consideration, the considerations in support of the proposal do not outweigh, let alone clearly outweigh the harm that arises. The very special circumstances that are therefore required to justify the proposal do not exist with the result that the development is contrary to the NPPF. In addition, it is considered that the proposed development does not accord with Policy SP1, Policy CS12 and Policy CS13 of the Core Strategy (2013) or Policy SADM 27 of Site Allocation and Development Management Policies Plan (2016). Accordingly the Council would respectfully ask that Hertfordshire County Council refuse this application.
- 6.12 Accordingly Hertsmere Borough Council would respectfully ask that Hertfordshire County Council refuse this application.
- 6.13 **Highways England**
No objection.
- 6.14 **The Environment Agency(EA)**
There is an objection to the grant of planning permission based on a lack of detail submitted to address the odour concerns. The composting development currently operates under an Environmental Permit under the Environmental Permitting Regulations 2010. We do not currently have enough information to assess whether the proposed changes to the development would meet our requirements to prevent or minimise and/or control pollution, and we have concerns that these requirements might not be met through the current planning application. We must therefore object to the proposal as submitted. We need to consider whether odours can be adequately managed through the design of the new building. In the absence of a detailed odour management plan based on the new building design, we are unable to assess the associated risks. This objection is supported by paragraph 122 of the National Planning Policy Framework (NPPF) which recognises that the planning system and pollution control regimes are separate but complementary. Planners are asked to consider the acceptability of the proposed use of land and the impacts of that use, but not the control of processes and emissions that will be covered by a permit. In cases where the generation of odours from developments can be readily anticipated, you should expect to be provided with objective evidence that demonstrates that odour emissions will be

adequately controlled to prevent any significant loss of amenity to neighbouring sensitive land users. This is important because possible odour mitigation measures could in themselves have land use and amenity implications. The parallel tracking of planning and Environmental Permit applications offers the best option for ensuring that all issues can be identified and resolved, where possible, at the earliest possible stages. This will avoid the potential need for amendments to the planning application post-permission. We therefore advise joint discussions with the applicant, planning authority and ourselves, as well as parallel tracking of the planning and permit applications.

- 6.15 In order to overcome this objection, EA need to see an odour management plan which addresses their concerns which are outlined in the following.
- 6.16 It is stated that the proposed building is to house 'green waste recycling activities', and that 'all green waste will be processed within the existing and proposed building'. However, the plan submitted with this planning application has some green waste being stored outside the building. It seems contradictory to erect a building in order to prevent odours yet still store unprocessed material outside. There is insufficient detail submitted with this planning application outlining how long this waste will be stored there. Point 5.5 of the planning statement says that 'at times treatment facilities will cause an odour'. This is not acceptable, and the applicant has not provided any details as to how they will minimise the odours, or what is meant by 'at times'. There is no detail as to how frequent this will be. Point 5.8 of the planning statement states that odour sources are fats and carbohydrates. At the moment the site should only be taking green waste, and the planning statement does not seem to refer to any plans to change what is to be brought onto the site. Can this be clarified? Point 6.8 of the planning statement states that oxygen is monitored, along with temperature and moisture. However we are not aware that Reviva monitors oxygen at this site. Can this be clarified? Point 6.15 of the planning statement mentions unacceptable loads regarding physical contamination; however there is no mention of waste that is very odorous. This needs to be discussed within their plan, stating what they will do with odorous waste. Point 6.26 of the planning statement mentions monitoring of the windrow. However, this refers only to temperature and moisture, and does not mention monitoring oxygen, which is a contradiction to point 6.8 above. Details need to be provided of what is to be monitored on the site. Section 15.1 of the planning statement states that the applicants are not planning to increase the overall throughput of the site. However, the applicant has voluntarily reduced their annual throughput, so it is not clear whether this statement applies to the reduced throughput or the throughput allowed under their permit. There should be a definitive figure. Overall, there is a lack of information regarding any odour abatement at the site.

6.17 We would expect a detailed odour management plan to incorporate the following measures: first-in-first-out procedures; closing the doors whilst tipping waste. The question of how it is known whether the biofilter is big enough for the proposed building needs to be addressed. Additionally it is asked how it is proposed negative air pressure will be achieved how big the fans will be and where they will be in the building?

6.18 **Hertfordshire County Council – as Highway Authority**

There is no wish to restrict the grant of permission. The following advice note is provided.

6.19 This application seeks planning permission for extension of the existing building to enclose green waste composting activities at Reviva Composting, Elstree Hill South. The site covers an area of approximately 2 ha. and currently operates as a composting and biomass site for processing green waste through composting and recovery of the woody fractions as biomass and was granted permission to do so on 28th January 2011. Due to the foul smell being generated by the composting operation a Statutory Nuisance Abatement Notice has been issued and the prevention of recurrence steps of the notice have stated that this can be via submission of a planning application. This application is intended to address this issue.

6.20 The application does not propose to change the hours of operation at the site, the amount of vehicle movements or anything other changes other than those stated above. Therefore the hours of operation for the site will be 6am-6:30pm Monday to Friday and 6am-1pm Saturdays with no working on Sundays or Public Holidays. The vehicle movements will remain at 200 vehicle movements per day (100 in / 100 out) in accordance with the current planning permission.

6.21 There are no highway issues associated with this proposal as the number of vehicle movements will remain as currently permitted, therefore the Highway Authority does not wish to restrict the grant of planning permission.

6.22 **Elstree & Borehamwood Residents Association Residents' Association (EBRA)**

EBRA notes that Reviva's planning application does not present any independent expert evidence to support its proposal that a proposed extension of their existing building to enclose green waste composting activities is the correct/only/best solution to the odour problem. It is unclear to EBRA what other options have been explored and whether other Green Waste Composting facilities have similar odour issues. It is unclear as to what is actually causing the odour problem. Felt that there should be independent expert evidence to identify the source or sources of the odour Green waste composting should not be emitting such odours. It was on this basis that Reviva were given permission to

operate in the Elstree Lane South site in 2011. Residents were given assurances that odours would not be an issue.

6.23 EBRA believe that Reviva is only permitted to compost green waste which when correctly processed outdoors should not cause bad odours, since the materials are not in a state of advanced decomposition emitting noxious odours. One suggested possibility is that waste delivered is contaminated with food waste or animal waste and has not been detected by Reviva. The odours Residents reported to the Environment Agency are very strong and pungent and can last for one or two days on particular episodes. They can be widespread and have been reported as far away as Edgware, Stanmore and Harrow. EBRA suggest that a source of the odour could be from the indoor processing facility itself, possibly when the systems fail. This question is not addressed. EBRA state *"Given that the source of the problem is not technically evidenced, the solution can only be viewed as being 'self prescribed' by Reviva themselves, and as such is unreliable. Reviva is a commercial organisation and could be seen as looking to extend their existing building to increase their business productivity and profitability. Reviva say they have 'state of the art' facilities. If this is the case, then are there issues related to how the site is man managed and the levels of process control which require addressing? And why is the odour problem so longstanding? Reviva's business was in 2011 granted permission to operate on Green Belt Land in close proximity to a residential area, a renowned hospital currently undergoing a massive redevelopment programme, a large business park and an upmarket large hotel and luxury leisure club. In our opinion we find it quite extraordinary to think that permission was given at all for Reviva to operate in this location and especially to an operator who had already a proven track record in not managing their composting operation competently. This surely is a prime example of inappropriate development on green belt land with no 'very special circumstances'. Due to the particular nature of composting businesses, and as Reviva in their Planning Statement admit that 'the treatment of biodegradable resources will have the potential to cause odours', it is essential that these premises are properly geographically located. As our locality becomes more urbanised, we recognise this presents a problem as recycling centres are a required facility but this should be incorporated in proper strategic town planning."*

6.24 EBRA state *"The proposed extension is huge in terms of its bulk, size and volume. Although the site is set back from the road, surely this extension would be so large as to out of place with its locality and would visually impair the environment? Reviva's composting site is monitored by various authorities and we are not sure 'how joined up' all these authorities are in actually monitoring and policing activity and sharing results and information. There seems to be a lot of 'loopholes' which need to be expressly documented about how Reviva can and can't operate and perhaps more severe (financial) penalties in place when Reviva fails to operate properly and odours are emitted. Could a*

possible solution be for Reviva to internally remodel their existing building to accommodate the green waste currently stored outside? It is EBRAs view that planning permission should not be granted to Reviva to extend their existing building. There is simply no independent expert evidence to identify the problem and therefore, identify the solution. There are many risks in a larger composting facility - eg. Fire, water pollution and air pollution, which would need to be fully assessed.”

6.25 The Brockley Hill Residents Association(BHRA)

“We hereby object to the proposal from Reviva to extend their buildings to accommodate the recycling waste that they are storing on their site off Elstree Hill South (A5183). The area is Green Belt land and it is questionable whether permission was correctly given for a recycling centre in the first place. To enlarge the buildings would further compound the situation and would not stop – indeed could increase - the offensive effluvia that frequently make life a misery for residents of Elstree and surrounding areas. The construction of this large warehouse on Green Belt Land does 'harm' to the Green Belt and impacts on the 'openness' of this land. The 'odour' released during the composting process negatively impacts on residential amenity. We are most concerned about the dangers of 'enclosing' rotting vegetation as there could be an attendant overheating and fire risk. We believe that the site is far too close to residential, business premises, hospitals and nursing homes and should be relocated at the earliest opportunity. We question whether Reviva provided any evidence that their proposals had been used effectively on another site? If so, which sites have they cited for that evidence and how effective was the technology? Further, the consequences are too serious to experiment or gamble with untried or untested technology given the propensity for technology to fail from time to time.”There is additional ‘odour’ generated by the HGV activity to and from the site and loading and unloading. In the original planning application there was a restriction of lorry size and movements. Who is responsible for monitoring this to ensure that Reviva comply and with what result?”

“How often is the site monitored by the Environment Agency? It is perceived that lorry movements have increased significantly since the previous site closed at Woodcock Hill farm. Reviva should keep records about waste in and waste out for business purposes. Who checks those?”

“Reviva has changed their intake from purely green waste to biodegradable waste: they state that methane sulphur and ammonia are generated. An original restriction was that no biodegradable waste would be recycled on that site. When was permission given for the biodegradable waste to be recycled there? Who monitors the type of waste handled at The Elstree site?”

“We are concerned about the consequences this new waste product may be having on the ground water? Is the Environment Agency responsible for monitoring this, or are other agencies involved and what the results of their controls and investigations are.”

“The nearby crossroads at the top of Elstree Hill has been identified as a pollution hot spot by Hertfordshire County Council. There can be little doubt that the air quality at the recycling location by the busy A41 and M1 routes also has poor air quality. We wonder what contribution the Composting site makes to these pollution hot spots.”

6.26 Elstree & Borehamwood Green Belt Society (EGBGS)

“The area is Green Belt land and it is questionable whether permission was correctly given for a recycling centre in the first place. To enlarge the buildings would further compound the situation and would not stop – indeed could increase - the offensive effluvia that frequently make life a misery for residents of Elstree and surrounding areas”

“The process of loading and unloading the removal Lorries generates really horrible stench and must surely be a health hazard for staff and nearby households”.

“We suggest that it is dangerous to enclose rotting vegetation as there would be an attendant overheating and therefore fire risk.”

“The wonder whether the attempt to control the foul smell by extraction and filtration would be unnecessarily costly and question whether it would actually be effective, especially given the propensity for technology to fail from time to time”.

“They believe that the site is far too close to a residential area and should be relocated at the earliest opportunity.”

“EGBGS question whether Reviva provided any evidence that their proposals had been used effectively on another site? If so, which sites have they cited for that evidence and how effective was the technology?”

“Much of the smell is generated by the lorries loading and unloading. In the original planning application there was a restriction of lorry size and movements. Who is responsible for monitoring this to ensure that Reviva comply and with what result?”

“How often is the site monitored by the Environment Agency? It is perceived that lorry movements have increased significantly since the Conway site has closed at Woodcock Hill farm. Reviva should keep records about waste in and waste out for business purposes. Who checks those?”

“Reviva has changed their intake from purely green waste to biodegradable waste: we believe that methane sulphur and ammonia are generated. An original restriction was that no biodegradable waste would be recycled on that site. When was permission given for the biodegradable waste to be recycled there? Who monitors the type of waste handled at The Elstree site? What effect is this new waste product having on the ground water? Is the Environment Agency responsible for monitoring this, or are other agencies involved?”

“The nearby crossroads in Elstree have been identified as a pollution hot spot by Hertfordshire County Council. There can be little doubt that the air quality at the recycling location by the busy A41 and M1 routes also has poor air quality. Who is monitoring this now for fungal spores and harmful particulates which could be generated by the recycling site?”

“The application should be put on hold until all of these points are addressed and satisfactory answers provided from the Environment Agency, Hertfordshire County Council, the agency responsible for air quality control etc. etc.”

**6.27 Elstree Village Preservation Society –
Objects.**

6.28 Hertfordshire County Council – Ecology

“The site is situated within the Green Belt therefore a judgment on the appropriateness of the development will need to be made by planners. There are no other designated sites within or adjacent to the application site. There are species records nearby of breeding birds and great crested newts (GCN). The GCN records are not within 500 m of the proposed site; however there are suitable habitats and a possible breeding pond in close proximity. I do not believe that GCN surveys are justified however I would caution that they could be on site. The tree lined ditch that runs along the northern boundary of the site could also be suitable for reptiles, other amphibians and breeding birds and is likely used by foraging bats. There is also suitable foraging habitat for badgers adjacent to the proposed site. However a majority of the works are to be done on hardstanding with little or no habitat removal, with the exception of what looks to be a small patch to the east of the proposed extension. Given the above mentioned habitats and possible protected species I would suggest the Informatives are included in any planning decision relating to protection of nesting birds during spring/summer season and the following: The area of vegetation affected by the proposed development site should be mown/strimmed as short as possible before and during construction to ensure it remains/becomes unfavourable for reptiles, great crested newts and other amphibians; Stored materials (that might act as temporary resting places) are raised off the ground eg on pallets or batons; and any rubbish is cleared away to minimise the risk of protected species using

the piles for shelter; Trenches or excavations are backfilled before nightfall or a ramp left to allow protected species to escape Building work should (ideally) be carried out during April-June, when great crested newts are more likely to be found in ponds and less likely to be found on site; If a protected species is found, work must stop immediately and ecological advice taken on how to proceed lawfully from Natural England or an ecological consultant.”

6.29 Hertfordshire County Council – Waste Management

“Hertfordshire County Council in its role as the Waste Disposal Authority (WDA) does not currently hold a contract with Reviva Composting, Elstree Hill South, Elstree, WD6 3BL. In line with the Authority’s Local Authority Collected Waste (LACW) Spatial Strategy 2016 the WDA would support the improvement of the current facility and has no objections to the proposed enclosure of Reviva’s Elstree site.”

“The changing nature of LACW organic waste collections means it is important to have facilities in the county that can provide a range of organic waste treatment methods. Having facilities within the county enables waste to be treated locally. This reduces transports costs and provides environmental benefits by reducing the distance waste is transported for treatment.”

6.30 Hertfordshire County Council - Lead Local Flood Authority

“Objects to the application and recommends refusal of planning permission until a satisfactory surface water drainage assessment has been submitted. In order for the Lead Local Flood Authority to advise that the site will not increase flood risk to the site and elsewhere and can provide appropriate sustainable drainage techniques, the surface water drainage assessment should as a minimum include the following; Statement of compliance with the NPPF and NPPG policies, LPA local plan policies and HCC SuDS Guidance and Policies. Anecdotal information on existing flood risk with reference to most up to date data and information. Location of any ordinary watercourses including any which may be un-mapped. The location/extent of any existing and potential flood risk from all sources including existing overland flow routes, groundwater, flooding from ordinary watercourses referring to the national EA fluvial (River) and surface water flood maps. Where infiltration is proposed, evidence of ground conditions/ underlying geology and permeability including BRE Digest 365 compliant infiltration tests should be provided. Detailed drainage calculations for all rainfall return periods up to and including the 1 in 100 year + climate change event including pre-development greenfield run-off rates. Full detailed drainage plan including location of SuDS measures, pipe runs and discharge points, informal flooding (no flooding to occur below and including the 1 in 30 Year rainfall return period). Provision of a SuDS management train to manage surface water runoff. Full details of any

required mitigation/ management measures of any identified source of flooding. A surface water drainage assessment is required under the NPPF for all Major Planning Applications as amended within the NPPG from the 6 April 2015. A surface water drainage assessment is vital if the local planning authority is to make informed planning decisions. In the absence of a surface water drainage assessment, the flood risks resulting from the proposed development are unknown. The absence of a surface water drainage assessment is therefore sufficient reason in itself for a refusal of planning permission. “

“The applicant can overcome our objection by undertaking a surface water drainage strategy which demonstrates that the development will not increase risk elsewhere and where possible reduces flood risk overall and gives priority to the use of sustainable drainage methods, the SuDS hierarchy and management train. If this cannot be achieved we will consider whether there is a need to maintain our objection to the application. Production of a surface water drainage assessment will not in itself result in the removal of an objection”.

6.31 **Hertfordshire County Council – Landscape**

Landscape Policy & Guidelines

National Planning Policy Framework

The NPPF promotes the conservation and enhancement of the natural environment and good design, ensuring that developments respond to local character and are visually attractive as a result of good landscape design.

With regards Greenbelt the NPPF states that when considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations...A local planning authority should regard the construction of new buildings as inappropriate in Green Belt. Hertfordshire Waste Development Framework Adopted Nov 2012
Policy 6: Green Belt.

Applications for new and/or expansion of existing waste management facilities within the Green Belt will be required to demonstrate very special circumstances sufficient to outweigh the harm to the Green Belt together with any other harm identified. In considering proposals within the Green Belt the following criteria will be taken into account as material considerations...The site characteristics...
Hertsmere Borough Council, Core Strategy Adopted Jan 2013
Policy CS13 The Green Belt.

There is a general presumption against inappropriate development within the Green Belt, as defined on the Policies Map and such development will not be permitted unless very special circumstances

exist. Development proposals, including those involving previously developed land and buildings, in the Green Belt will be assessed in relation to the NPPF.

Hertfordshire Landscape Character Assessment

The site lies within the Elstree Ridge and Slopes landscape character area as defined within the Hertfordshire Landscape Character Assessment. The site is located within the M1/A41 corridor that is identified as creating a major impact in this area. The following guidelines should help shape the proposed development:

- Promote the extension of existing woodlands, particularly with a view to visually integrating the intrusive motorways and urban fringe development
- Encourage effective management along transport corridors to ensure thinning, selective felling and replanting is undertaken to achieve a varied age structure and locally indigenous species mix.

Quality of Submitted Information

The submitted 'Proposed Site Plan' (CLA drawing no. 16-158-110 Rev A) is not consistent with the approved 'Landscaping Scheme' (Bidwell's drawing no. 25037/ConDisc011 Rev B).

For example the proposed plan shows the existing building in a different location to that shown on the approved plan. Furthermore it shows the proposed building extension overlapping an area that is shown on the approved plan as an earth bund with fencing, and planting including orchard.

The inconsistencies in information raise the question as to whether or not the site has been developed in accordance with the planning permission; indeed there is strong concern that the landscape scheme has not been implemented in full.

The proposed development negatively impacts upon the approved landscape scheme resulting in the removal of important landscape/visual/acoustic mitigation measures. The displacement of these features has not been acknowledged or adequately compensated for within the proposal.

Siting, Scale & Design

The proposal is to extend the existing building by 4182m² (91.4m long by 45.7m wide by 10m high). This is considered a substantial addition to the building footprint, and on plan appears to almost triple the size of the existing building. It represents a *'disproportionate addition over and above the size of the original building'* and is therefore considered

inappropriate development in the Green Belt in line with NPPF para. 89.

Conclusion

Overall the proposals are not supported for the reasons as discussed above.

6.32 **Oliver Dowden MP**

Objects to the application and raises deep concerns.

He comments that he knows from personal experience, and from correspondence from residents, the serious distress caused by the pungent smells that the site produces when operating. These have a considerable adverse effect on the quality of life of those nearby. Also share the serious concerns of the Elstree & Borehamwood Green Belt Society over the impact of this development on our precious green belt. Enlarging the site would blight more of this land, which we should be committed to preserving.

6.33 A total of 597 consultation letters were sent out and **52** letters objecting to the application have been received (a further consultation was undertaken. The issues of concern can be summarised as:

- Loading and unloading of vehicles will still smell
- Opening the doors to the building will let the smell out
- The smell currently is awful and affects residents' health
- There is a bio aerosols hazard
- The site is a blot in a peaceful and tranquil area
- The smell has upset the entire community
- The site needs to be closed down not expanded.

6.34 Publicity for the application was as follows: A site notice was erected on 6th November 2016 and the application was advertised in the Borehamwood and Elstree Times on 10th November 2016.

7. Planning Policy

National Planning Policy Framework 2012 (NPPF)

7.1 The NPPF was released in March 2012. The NPPF contains the presumption in favour of sustainable development. The document also promotes the development plan as the starting point for decision making and that decisions should be made in accordance with an up to date Local Plan unless material considerations indicate otherwise.

7.2 The NPPF refers to three dimensions of sustainable development; economic, social and environmental and the purpose of the planning system being to contribute to the achievement of sustainable development. In order to achieve sustainable development economic, social and environmental gains should be sought jointly and

simultaneously through the planning system. Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life and improving the conditions in which people live, work, travel and take leisure.

- 7.3 The NPPF also seeks to protect Green Belt land stating that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics being their openness and their permanence. Green Belt purposes include checking the unrestricted sprawl of large built-up areas; preventing neighbouring towns merging into one another; assisting in safeguarding the countryside from encroachment; preserving the setting and special character of historic towns; and to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 7.4 Inappropriate development in the Green Belt is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Local Planning Authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

National Planning Policy for Waste 2014 (NPPW)

- 7.5 This policy document seeks to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment, together with ensuring the design and layout of new development and other infrastructure such as safe and reliable transport links complements sustainable waste management.
- 7.6 Waste Planning Authorities should assess the suitability of sites/areas for new or enhanced waste management facilities against a list of criteria which includes the following:
- The extent to which the site will; support the other policies set out in the document,
 - The physical and environmental constraints on development, including existing and proposed neighbouring land use, and having regard to the factors in Appendix B,
 - The capacity of existing and potential transport infrastructure to support the sustainable movement of waste,
 - The cumulative impact of existing and proposed waste disposal facilities and the well-being of the local community, including any significant impacts on environmental quality, social cohesion and economic potential.
 - Green Belts have special protection in respect to development.

7.7 In determining planning applications, applicants would need to demonstrate the quantitative or market need for new or enhanced waste facilities where proposals are not consistent with an up-to-date Local Plan. The likely impact on the local environment and on amenity also needs to be considered and judged against Appendix B. Waste management facilities should be well-designed, so that they contribute positively to the character and quality of the area in which they are located.

7.8 Appendix B – Locational criteria: in determining planning applications the following factors should be taken into account:

Flood risk; land instability; landscape & visual impacts (localised height restrictions); nature conservation; conserving the historic environment; traffic & access – considerations will include the suitability of the road network and the extent to which access would require reliance on local roads; air emissions, including dust; odours; vermin & birds; noise, light and vibration for which considerations will include the proximity of sensitive receptors and potential for noise affecting both the inside and outside of buildings, including noise and vibration from goods vehicle traffic movements to and from a site.

Development Plan

7.9 The Development Plan is the Hertfordshire Waste Development Framework Waste Core Strategy and the Welwyn Hatfield District Plan. The NPPF and the NPPW are both material considerations and how policies from the Development Plan are in conformity with these need to be considered.

7.10 The relevant development plan policies are:

Hertfordshire Waste Development Framework Waste Core Strategy Adopted November 2012

Policy 1- Strategy for provision for waste management facilities
Policy 1A- Presumption in favour of sustainable development
Policy 6 - Green Belt
Policy 7- General criteria for assessing planning applications outside of identified locations (part iv).
Policy 9 - Sustainable transport
Policy 11- General criteria for assessing waste planning applications
Policy 13- Road transport and traffic
Policy 16 – Soil, Air and Water

Hertsmere Core Strategy 2013

Policy SP1 Creating sustainable development
Policy CS12 The Enhancement of the Natural Environment
Policy CS13 The Green Belt

Site Allocations and Development Management Policies Plan 2016
Policy SADM 27

8. Planning Issues

8.1 The principal issues to be taken into account in determining this application are:

- Background to the submission and proposed development
- Impact on residential amenity and odour
- Impact on the Green Belt
- The planning balance
- Flood risk

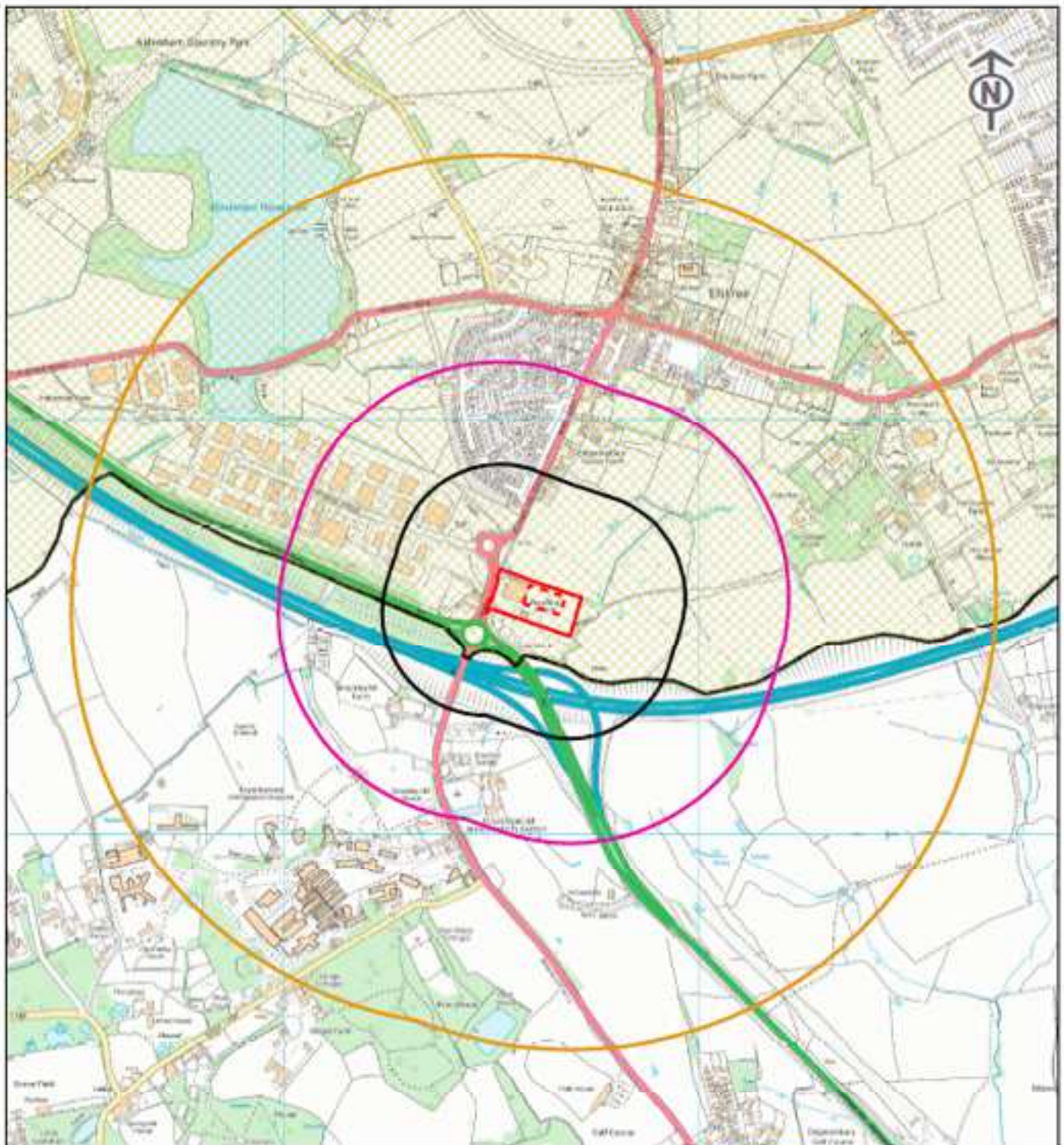
Background to the submission and the proposed development

- 8.2 This application has been submitted due to a requirement set out in an amended Abatement Notice served on the applicant by St. Albans Magistrates Court in June 2016. The applicant was required to submit a full planning application to extend the existing building in order to house green waste recycling activities. The application shows a large extension measuring 91m x 47.5m which would treble the size of the existing building.
- 8.3 The submitted Working Plan shows some activities to be sited outside the building to include waste wood storage, biomass storage and oversize storage; green waste reception area for non HGV vehicles and finished compost stockpiles. The plan also shows a significant part of the yard area as 'empty'.
- 8.4 Over the last few years, the site has generated a significant number of complaints from residents and businesses in the local area which has led to Hertsmere Borough Council serving an Abatement Notice. The purpose of the amended Abatement Notice served by St Albans Magistrates Court is to seek to find a solution that would solve the problem of odour and mitigate the effects.
- 8.5 Therefore Hertfordshire County Council needs to be assured from a technical perspective that the proposed building would guarantee to solve the odour problem.
- 8.6 The Environment Agency advises that not enough information has been submitted to assess whether the proposed changes to the development would meet the EA's requirements to prevent or minimise and/or control pollution, and there are concerns that these requirements might not be met through the current planning application. Sufficient detail needs to be submitted in order to consider whether odours can be adequately managed through the design of the new building. In the absence of a detailed odour management plan based on the new building design, it is not possible to assess the associated risks.







- 8.7 The submitted planning statement states that the erection of an extension to the existing building to facilitate the 'outdoor' part of the operation being conducted within the proposed building will have the effect of "significantly reducing any odour nuisance potential and therefore improve the amenity of the locality and protect human health". However, in the original planning statement submitted in 2009 it was stated that... "The process does not create unpleasant odours and the site is located a significant distance away from any 'sensitive receptors'". Therefore even with the proposed erection of the extension to the building, the submitted information has changed from not creating any unpleasant odours to significantly reducing any odour nuisance potential.
- The amount by which the odour nuisance potential would be reduced by is not quantified.

Impact on amenity and odour complaints

- 8.8 Numerous complaints have been received by the Environment Agency and Hertsmere Environmental Health over the last few years. The complaints all point to a very unpleasant odour emanating from the site. People have been unable to stay in their houses and lives have been disrupted due to the smell including local business, hotels and hospitals. It remains a significant concern.
- 8.9 Hertsmere Borough Council Environmental Health Department have confirmed that composting does have the potential when not properly controlled, to cause environmental pollution, harm to human health and nuisance through odours, leachate and potentially harmful bio aerosols. An Abatement Notice was served upon the operator of the site due to the intensity, frequency and duration of odour nuisance coming from the site. As such, it was expected that the application would have given a more detailed robust, technical assessment on how this new building would contain the odour and ensure that no odour is detected beyond the boundary of the site. It is also possible that the movement of the green waste material into and out of the building will still have the potential to cause odour and the Working Plan continues to show some elements to still be out in the open.



Reviva Composting Ltd

-  1000m Buffer
-  500m Buffer
-  250m Buffer
-  Building Extension
-  Application Site
-  Greenbelt



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- 8.10 The map above shows the buffers around the site with the nearest residential properties being within 150 metres to the north and the Royal National Orthopaedic Hospital a short distance to the south. Complaints have been recorded from all directions.
- 8.11 Policy 11 of the Hertfordshire Waste Development Framework lists general criteria for assessing waste planning applications, one of which states that planning permission will only be granted if the proposed operation of the site would not adversely impact upon amenity and human health. The submitted application does not conclusively indicate that this would be the case.
- 8.12 The NPPW also requires that under *odours* that 'Considerations will include the proximity of sensitive receptors and the extent to which adverse odours can be controlled through the use of appropriate and well-maintained and managed equipment'. Additionally, the thrust of the NPPF is to seek to improve the conditions in which people live, work, travel and take leisure. Yet site operations over the last few years have caused the reverse to happen and it has not been proven in this current application that there would be a guarantee that the situation would improve.
- 8.13 Recent site inspections have shown that the site is not being run entirely in accordance with the details of the original planning permission, with materials other than green waste (wood waste) piled up for processing and the quantity and extent of material in the outdoor area appearing to be spread over a significantly larger area than the neat windrows shown on the original working plan. It may be possible that the methods of working and the lack of adherence to the approved plan and details could have contributed to the creation of odour, where it was originally thought (as submitted by the original planning agent) that there would be no odour produced from site operations.

Green Belt

- 8.16 The application site lies within the Metropolitan Green Belt and it is considered that the proposed development represents inappropriate development in the Green Belt. The NPPF does include exceptions to the presumption against inappropriate development, by stating, 'limited infilling or the partial or complete redevelopment of previously developed sites, whether redundant or in continuing use, (excluding temporary buildings), *which would not have a greater impact on the openness of the Green Belt* and the purpose of including land within it than the existing development'.
- 8.17 Hertfordshire County Council's Waste Core Strategy, Policy 6 states that applications for new and/or expansion of existing waste management facilities within the Green Belt will be required to demonstrate very special circumstances sufficient to clearly outweigh the harm to the

Green Belt together with any other harm identified. Six criteria are listed to be taken into account as material considerations as follows:

- The need for the development that cannot be met by alternative suitable non Green Belt sites;
- The need to find locations as close as practicable to the source of waste;
- The availability of sustainable transport connections;
- The site characteristics;
- Any specific locational advantages of the proposed site; and
- The wider economic and environmental benefits of sustainable waste management, including the need for a range of sites.

8.18 The applicant has put forward some 'very special circumstances' in the application as follows:

- The proposed development will be well designed to ensure that there is no harm to human health by reducing the impacts associated with odour generation. The continued viability of the business will ensure that green waste continues to be diverted from landfill and is used sustainably as a resource.
- The site is located to accept and treat green waste from within the locality and provides a much needed service for appropriate waste management.
- All compost material produced on site is reused as a resource within the locality as it is sold into the domestic and agriculture sector.
- The woody fraction of the waste inputs is used as a feedstock for renewable energy
- The site employs 20 staff from the locality and the continued operation of the business will safeguard these jobs.

8.19 The proposed new extension clearly represents inappropriate development in the Green Belt and very special circumstances have been put forward by the applicant as indicated above. It is necessary for the applicant to show that these very special circumstances exist and that they clearly outweigh the harm by reason of inappropriateness and other harm.

8.20 The NPPF confirms that the fundamental aim of the Green Belt is to prevent urban sprawl by keeping land permanently open. It says that the essential characteristics of Green Belts are their openness and their permanence. When considering planning applications LPA's should, it says, ensure that substantial weight is given to any harm to the Green Belt. Having regard to this it is considered that the extension of the existing building with a very substantial extension within the Green Belt would seriously compromise openness and would conflict with one of the main purposes of including land within the Green Belt namely that of preventing encroachment into the open countryside.

- 8.21 The NPPF states that when considering planning applications, local planning authorities should ensure that substantial weight should be given to any harm to the Green Belt and that 'Very Special Circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness and any other harm, is clearly outweighed by other considerations. This particular case appears to be a difficult planning balance as there is clearly 'harm' being caused by the current operation of the site, and the erection of the new building is intended to mitigate that harm. However, in building that building more 'harm' would occur to impact on the openness of the Green Belt. This harm could potentially be outweighed by other considerations such as the reduction of odour, but it is considered that this application has not demonstrated sufficiently that odour would be reduced sufficiently by the erection of the building and therefore it is concluded that this proposal is inappropriate development in the Green Belt. The proposal would result in significant harm to openness in the local Green Belt area which would outweigh the very special circumstances put forward.
- 8.22 All the very special circumstances have been taken into consideration in reaching this conclusion, including the potential loss of employment if the operation does not continue in this location.
- 8.23 The National Planning Policy Framework and the National Planning Policy Guidance raise the importance of dealing with flooding and climate change. The development proposal is for major development and a substantial increase in the size of the building on site. The planning application documents say that a flood risk assessment is not required. The Lead Local Flood Authority however consider that a flood risk assessment is required for this development proposal and that permission should be refused. This is an important consideration for the planning application and the proposal is therefore contrary to Policy 16 of the Hertfordshire Waste Development Framework, Hertsmere Policy CS16 Environmental Impact of Development and the National Planning Policy Framework and the National Planning Policy Guidance

9 Conclusions and the planning balance

- 9.1 This application has been submitted due to a requirement set out in an amended Abatement Notice served on the applicant by St. Albans Magistrates Court in June 2016. However it is considered that insufficient details have been put forward to demonstrate conclusively that the erection of the proposed building would reduce the odour from the site to a level that would not be detrimental to amenity and human health.
- 9.2 The issue is severe and this application has not demonstrated that it would be solved by this planning application proposal, and therefore in terms of the planning balance, having considered both national and

local policy, it is concluded that more harm would occur in the Green Belt if planning permission were granted and therefore it is recommended that planning permission should be refused. The proposed development would cause harm to the openness of the Green Belt and would result in the encroachment of built form into the countryside, conflicting with one of the five purposes of including land within the Green Belt.

- 9.3 The planning application is not accompanied by a flood risk assessment and the proposed increase in building size is substantial. The Lead Local Flood Authority advise that a flood risk assessment should be submitted.
- 9.4 The national policy context contained within the NPPF is that there should be a presumption in favour of sustainable development in order to approve applications wherever possible. This is only possible however, where the proposed development improves the economic, social and environmental conditions in the area. Although in certain circumstances justifications will exist for developments to be approved, in this case it is considered that whilst there is a presumption in favour of sustainable development this does not override the material planning considerations that exist and the harm that would occur if planning permission were to be granted. It is therefore recommended that planning permission should be refused.

10 Recommendation

- 10.1 It is recommended that planning permission be refused for the following reasons:
- (i) The proposal constitutes inappropriate development in the Green Belt for which no very special circumstances have been demonstrated that would override harm and harm to the Green Belt. The proposed development is therefore contrary to The Hertfordshire Waste Development Framework Waste Core Strategy Policy 6 and advice set out in the NPPF and NPPW and policies SP1, CS12 & CS13 of Hertsmere Core Strategy. The development would cause substantial harm to the Green Belt by reason of its visual appearance, bulk and scale and the encroachment of its built form into the countryside resulting in its loss of openness and the development would fail to conserve the natural environment that surrounds the site.
 - (ii) The proposal would have an adverse effect on the local area, due to the siting, scale and design of the building being inappropriate for its location. The application has not demonstrated that the proposed operation of the site (with indoor housing of waste activities) would not adversely impact upon the amenity and human health of local residents due to the potential for odour from the site. Therefore the proposal is

contrary to Policy 11 of the Hertfordshire Waste Development Framework 'General Criteria for Assessing Waste Planning Applications', the National Planning Policy Framework and the National Planning Policy Guidance.

- (iii) The application has not demonstrated that the site will not increase flood risk to the site and elsewhere, nor that it can provide appropriate sustainable drainage techniques. Therefore the proposal is contrary to Policy 16 of the Hertfordshire Waste Development Framework, Soil, Air and Water, Hertsmere Policy CS16 Environmental Impact of Development, the National Planning Policy Framework and the National Planning Policy Guidance.

Background information used in compiling this report

Planning application
National Planning Policy Waste
National Planning Policy Framework
Herts Waste Development Framework
Hertsmere Core Strategy
Representations received