

Agenda



AGENDA for a meeting of the ENVIRONMENT, PLANNING AND TRANSPORT CABINET PANEL in COMMITTEE ROOM B at County Hall, Hertford on THURSDAY, 7 SEPTEMBER 2017 at 10:00AM

MEMBERS OF THE PANEL (12) (Quorum 3)

D A Ashley (Chairman), D J Barnard, S Bedford, S J Boulton, R C Deering, S J Featherstone, N A Hollinghurst, A K Khan, G McAndrew, A Stevenson (Vice-Chairman), J A West, A S B Walkington

Meetings of the Cabinet Panel 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 under "Part II ('closed') agenda".

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

Members are reminded that all equalities implications and equalities impact assessments undertaken in relation to any matter on this agenda must be rigorously considered prior to any decision being reached on that matter.

Members are reminded that:

- (1) if they consider that they have a Disclosable Pecuniary Interest in any matter to be considered at the meeting they must declare that interest and must not participate in or vote on that matter unless a dispensation has been granted by the Standards Committee;**
- (2) if they consider that they have a Declarable Interest (as defined in paragraph 5.3 of the Code of Conduct for Members) in any matter to be considered at the meeting they must declare the existence and nature of that interest but they can speak and vote on the matter**

PART I (PUBLIC) AGENDA

1. MINUTES

To confirm the Minutes of the meeting held on 30 June 2017 (Part I attached).

2. 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 Cabinet Panel, 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 Stephanie Tarrant, by telephone on (01992 555481) or by e-mail to Stephanie.tarrant@hertfordshire.gov.uk

No requests to present petitions on matters not contained on this agenda have been received

3. BUS SERVICES ACT 2017

Report of the Chief Executive and Director of Environment

4. GOVIA THAMESLINK RAILWAY PERFORMANCE UPDATE

Report of the Chief Executive and Director of Environment

5. RAIL UPDATE INCLUDING EAST MIDLANDS FRANCHISE CONSULTATION

Report of the Chief Executive and Director of Environment

6. COUNTY COUNCIL RESPONSE TO THE MAYOR OF LONDON'S DRAFT TRANSPORT STRATEGY

Report of the Chief Executive and Director of Environment

7. SITES TO BE IDENTIFIED IN THE DRAFT MINERALS LOCAL PLAN

Report of the Chief Executive and Director of Environment

8. MINERALS AND WASTE LOCAL PLAN – AUTHORITY'S MONITORING REPORT

Report of the Chief Executive and Director of Environment

9. ENVIRONMENT, PLANNING & TRANSPORT PERFORMANCE MONITOR

Report of the Chief Executive and Director of Environment

10. PRELIMINARY FLOOD RISK ASSESSMENT REVIEW

Report of the Chief Executive and Director of Environment

11. OTHER PART I BUSINESS

Such Part I (public) business which, if 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. If Part II business 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/s of business on the grounds that it/they involve/s the likely disclosure of exempt information as defined in paragraph/s 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 further information about this agenda please contact Stephanie Tarrant, Democratic Services, telephone number (01992) 555481 or email Stephanie.Tarrant@hertfordshire.gov.uk.

Agenda documents are also available on the internet at:

<https://cmis.hertsdirect.org/hertfordshire/Calendarofcouncilmeetings.aspx>.

**KATHRYN PETTITT
CHIEF LEGAL OFFICER**

Minutes



To: All Members of the Environment, Planning and Transport Cabinet Panel, Chief Executive, Chief Officers, All officers named for 'actions'

From: Legal, Democratic & Statutory Services
Ask for: Stephanie Tarrant
Ext: 25481

ENVIRONMENT, PLANNING AND TRANSPORT CABINET PANEL, 30 JUNE 2017

ATTENDANCE

MEMBERS OF THE PANEL

D A Ashley (Chairman), D J Barnard, S J Boulton, R C Deering, S J Featherstone, N A Hollinghurst, A K Khan, G McAndrew, N A Quinton (substituting for A S B Walkington), A Stevenson (Vice-Chairman), J A West

Upon consideration of the agenda for the Environment, Planning and Transport Cabinet Panel meeting on 30 June 2017 as circulated, copy annexed, conclusions were reached and are recorded below:

Note: No Declarations of interest were made.

PART I ('OPEN') BUSINESS

1. MEMBERSHIP AND REMIT OF THE PANEL

The membership and remit of the Environment, Planning and Transport Cabinet Panel were noted.

2. MINUTES

2.1 The Minutes of the Cabinet Panel meeting held on 29 March 2017 were agreed.

3. PUBLIC PETITIONS

3.1 There were no public petitions.

4. ENVIRONMENT, PLANNING & TRANSPORT PERFORMANCE MONITOR

[Officer Contact: Simon Aries, Assistant Director Transport, Waste & Environmental Management, Tel: 01992 555255 / Jan Hayes-Griffin, Assistant Director Planning & Economy, Tel: 01992 555203]

4.1 The Panel considered a report which detailed the performance of Environment, Planning and Transport Services for the fourth quarter,

ACTION

January - March 2017, against the Environment Department Service Plan 2016-2020 including key performance indicators, major projects, contracts and identified risks. Members noted that the indicators used in the performance monitor were currently under review to improve their relevance and usefulness.

- 4.2 Members heard that the indicators relating to bus stops and health walks were all meeting the agreed targets. Hertfordshire's Heath Walks scheme was the biggest in the country and Members were encouraged to attend a local walk. It was noted that the Countryside Management Service (CMS) delivered a third of all volunteer hours across the County Council with CMS coordinating volunteers who lead 60 health walks per week and deliver improvements to rights of way and environmental conservation on greenspace.
- 4.3 Paragraph 4.7 of the report was discussed. It was noted that in most cases planning applications were decided within the allocated 13 weeks' timescale and where this had not been possible, due to the complexity of an application, an extension of time has been agreed with the applicants.

Conclusions:

- 4.4 The Cabinet Panel noted the report and commented, as above, on the performance monitor for Quarter 4 2016-17.

5. NATURAL FLOOD MANAGEMENT PROJECT, "SLOW THE FLOW" IN HERTFORDSHIRE 2017/18 TO 2020/21

[Officer Contact: John Rumble, Head of Environmental Resource Planning, Tel: 01992 556296]

- 5.1 Members received a report detailing a new flood risk management project being undertaken by the County Council to address surface water flooding using natural flood management techniques, for which funding has been secured over a two year period.
- 5.2 Two pilot studies had been considered in areas that had faced several flooding issues and the aim was to test techniques to see if they could prevent flooding by diverting water out of direct conflict with homes. Members noted that the success of the project would be reported back both during and towards the end of project.
- 5.3 Members welcomed the initiative and discussed whether the district and borough councils had any responsibilities to provide funding to continue these programmes. It was advised that the County Council was in talks with St Albans and Dacorum Borough Councils with regards to the project and that it was noted that cooperation in terms of development and future opportunities was being sought.

5.4 Conclusion:

The Cabinet Panel noted the content of the report.

6. HERTFORDSHIRE BUILDING FUTURES – UPDATE REPORT

[Officer Contact: Rachael Donovan, Natural, Historic and Built Environment Advisory Team Leader, Tel: 01992 556294]

- 6.1 The Panel reviewed a report on the Hertfordshire Building Futures initiative, set up in 2007 to help secure high quality, sustainable development in the county. Originally all 11 Hertfordshire Local Authorities were involved, however, three years ago Stevenage and Broxbourne Borough Councils withdrew from the partnership. The county council project manages/ leads the initiative.
- 6.2 Members heard that partners have re-confirmed their commitment to the initiative, including financial. Partners have identified a need for masterplanning/ design support for site allocations/ large schemes. The Hertfordshire Design Review Panel offers this support and is increasingly used in this way. Examples include Bishop's Stortford North and the redevelopment of Bircherley Green, Hertford.
- 6.3 Members heard that a biennial Building Futures Awards scheme was established in 2009, with the next awards due to take place in 2018. It was advised that sponsors were currently being sought for the awards to ensure costs are covered albeit officer time.
- 6.4 Members discussed the overall cost of the service to the County Council and heard that the biggest cost had been the development of the toolkit, now complete. The ongoing costs were related to hosting the website and keeping the technical information up-to-date. Members heard that there was a £2500 annual subscription fee from each district and the Design Review Panel was a chargeable service costing between £2000 and £7000 depending on the size and complexity of the scheme, this fee also covered officer time at £90 per hour.

Conclusion:

- 6.5 The Cabinet Panel noted the report and reaffirmed the county council's support for the initiative.

7. BUS SERVICES ACT 2017

[Officer Contact: Matt Dale, Passenger Transport Manager, Tel: 019920 588633]

- 7.1 Members reviewed a report updating the Panel on the Bus Services Act 2017, which received Royal Assent on the 27 April 2017. Members heard that from April 2017 there had been a commitment from Government to widen powers for combined authority areas with or without directly elected Mayors to be in control of running their local bus services, with the aim to improve the quality of service. The three main elements of the Act included; franchising, partnership and open data and ticketing.
- 7.2 Members acknowledged that there was already a good Intalink partnership within Hertfordshire with all 15 local bus services signed

up and was a good start towards working to an 'Advanced' or 'Enhanced Partnership'.

7.3 It was noted that under s.18 of the Act the Secretary of State could make regulations regarding the release of open data, which would legislate commercial bus companies.

7.4 Members acknowledged that bus operators were not in favour of the franchise option but it was discussed that some outcomes of the Act were still achievable via one of the Partnership options that may include powers currently wresting with which the Traffic Commissioner .

7.5 It was noted that a further report with proposals for Hertfordshire would be brought back to the Panel in the autumn for consideration.

Passenger
Transport
Manager

7.6 In response to a Members concern on what enforcement rights the County Council would have to improve bus service quality under a 'Enhanced Partnership', Members heard that the County Council only support 6% of bus services in Hertfordshire and that that the vast majority were of services were provided by unregulated commercial companies. It was advised that the County Council could elect to obtain licencing powers from the Traffic Commissioner, which would help give control over services as providers could be asked to improve or not have their licence renewed.

7.7 Members noted that bus usage was at an all-time high since 1988 and discussed the requirement to look seriously at the franchise option.

Conclusion:

7.8 The Cabinet Panel noted the report.

8. PLANNING AND GROWTH IN HERTFORDSHIRE

[Officer Contact: Paul Donovan, Team Leader Strategic Land Use, Tel: 01992 556289]

8.1 Members received a report detailing the scale of future growth in Hertfordshire.

8.2 Members considered the cumulative impact of growth across the County on Education Services and the Highways Network. It was important for the County Council to maintain good relationships with the Local Planning Authorities to ensure the County Council's needs were taken into account.

8.3 It was noted that the cost of infrastructure for growth in Hertfordshire was expected to be £4-5 billion up to 2031 and there was a need to consider new approaches to funding going forward, including s.106 and Community Infrastructure Levy (CIL).

8.4 Members noted that a new [Agenda Pack 7 of 454](#) planning was being

Team Leader

considered about how Hertfordshire's authorities could work better together and Members views were welcomed to feed into those discussions.

- 8.5 The Chairman of the Panel advised that he had written a letter to the Department for Transport and Department for Communities and Local Government (DCLG) on funding for infrastructure and that a copy would be shared with Panel Members.

8.6 **Conclusion:**

The Cabinet Panel noted the report.

9. **TRANSPORT VISION 2016 PUBLIC CONSULTATION REPORT AND LTP4 PROJECT UPDATE**

[Officer Contact: James Povey, Team Leader Transport Policy and Growth, Tel: 01992 556798]

- 9.1 Members received a report which provided details of the feedback received from the 2016 Transport Vision Public Consultation (Appendix A) exercise and an update on the Transport Vision project which would generate the new Local Transport Plan (LTP4) for the county. The report was accompanied by a presentation which can be viewed here: [Transport Vision 2016 Consultation and LTP4 Update Presentation](#)
- 9.2 Members' attention was drawn to broad issues raised in the report and it was noted that the next step would be for the draft LTP4 to be brought to an additional Panel in October 2017, before reaching Cabinet on 23 October 2017. The consultation would then take place approximately November 2017-January 2018 with the view to full council adopting the new policy in spring 2018.
- 9.3 Members noted that a briefing was taking place on 27 July 2017 to provide further background for Members in advance of the next Panel.
- 9.4 Members noted the need for electric vehicles to be supported in the updated policy and discussed the future of driverless cars. Members acknowledged that driverless cars could be on sale within five years and a feature on the roads within the next fifteen years. It was acknowledged that it was very unclear if these vehicles would be able to share the road with a normal vehicle and that it was best to have an adaptable strategy that could accommodate more or less vehicles on the road in the future.
- 9.5 In response to a Member question on the negative feedback on the Abbey Line, Members heard that in the short-medium term plan for the Abbey Line would remain as per the current Rail Strategy but that in the long-term other options may be considered e.g bus transit.
- 9.6 Members expressed their Agenda Pack 8 of 45 had not been any

movement from the Mayor of London or Transport for London on the Metropolitan Line Extension.

Conclusion:

9.7 The Cabinet Panel endorsed the Transport Vision 2050 Autumn 2016 Consultation Report which would form part of the evidence base to the LTP4.

9.8 Members noted that a member briefing on the proposed LTP4 was to be held at County Hall on 27 July 2017.

10. NATIONAL AIR QUALITY PLAN

[Officer Contact: Trevor Mason, Team Leader – Rail Strategy and Liaison Environment, Tel: 01992 556117]

10.1 Members reviewed a report on the local transport-related air quality issues in light of the Government's draft National Air Quality Plan and noted that the plan had implications on clear air zones. It was advised that the final plan was expected to be published by 31 July 2017.

10.2 It was noted that Hertfordshire has 31 Air Quality Management Area's, this being where the air pollution exceeds statutory limits in the proximity of residential properties.

10.3 Members noted that Appendix 3 outlined some of the actions that the County Council were engaging with to tackle air quality.

10.4 It was noted that there was a gap in the knowledge of what national figures meant for Hertfordshire and further work was to be undertaken with a report back to Panel for a more informed debate on the next steps to take.

10.5 In response to a Member question about people being encouraged to switch of vehicles when parked up (including buses and delivery vehicles), Members heard that a paper had been issued regarding anti-idling zones and that work has commenced with East Herts District Council to encourage people to turn of vehicles particularly when waiting outside a school. Members heard that there were regulations in relation to noise pollution but not clear legislation on turning engines off to reduce air pollution.

10.6 Members noted that the measurement of air pollution exceeding statutory limits was only in relation to residence and discussed if there was the scope for districts to go beyond the remit and measure around schools. It was advised that this could be done if the resources were available without imposing additional costs but that it only residential areas were required to be declared. Members acknowledged that the wider picture needed to be considered and how districts would work in partnership.

10.7 The Panel heard that the Agenda Pack 9 of 154

Rail Strategy
and Liaison
Environment

powered air pollution sensors on top of bus stops and running real time displays that could be used to promote campaigns.

- 10.8 Members discussed the link between tree health and air quality. It was noted that more trees had been dying or were threatened by a growing number of tree health issues and that colleagues in highways and at district level were being encouraged to replace those that had been lost.
- 10.9 It was noted that Stevenage and Welwyn and Hatfield did not have any Air Quality Management Areas and it was discussed that this could be due to the distance between the flow of traffic/road network and residential areas, as this had a big impact on whether or not areas had to be declared.
- 10.10 Members discussed what they could do in terms of reducing Air Quality Management Areas in their divisions and it was discussed that modal shift was required with more use of walking, cycling and public transport. It was noted that there was not a short term solution and that a long-term plan was required.

Conclusion:

- 10.11 The Cabinet Panel agreed the next steps set out in section 12.1 of the report.

11. DEPARTMENT FOR TRANSPORT CONSULTATION - UK AIRSPACE POLICY: A FRAMEWORK FOR BALANCED DECISIONS ON THE DESIGN AND USE OF AIRSPACE
[Officer Contact: Paul Donovan, Team Leader Strategic Land Use, Tel: 01992 556289]

- 11.1 Members received a report detailing the County Council's response to the recent consultation by the Department for Transport 'UK Airspace Policy: A framework for balanced decisions on the design and use of airspace'.
- 11.2 It was acknowledged that there would be big changes over the coming years to flight paths in line with the London airspace management programme and plans for Luton and Stansted being reviewed. Members noted that the proposals included making the system more transparent and improvements for local communities.
- 11.3 Members heard that the Government recognised the uncertainty over the changes to the use of airspace and who was responsible when the decisions were made. It was noted that the Civil Aviation Authority (CAA) were still the regulatory body and that changes would be subject to the establishment of an Independent Commission on Civil Aviation Noise (ICCAN).
- 11.4 Members noted the overall message should be encouraging for Hertfordshire with positive environmental benefits and better outcomes for communities.

Conclusion:

11.5 The Panel noted the report and the County Council's response.

12. WASTE LOCAL PLAN – WAY AHEAD PAPER

[Officer Contact: Trish Carter-Lyons, Planning Officer, Tel: 01992 556254 / Gemma Nicholson, Planning Officer, Tel: 01992 556732]

12.1 Members reviewed a report on the proposed way ahead for reviewing the Hertfordshire's Waste Local Plan and were given a presentation which provided a summary of the report. The presentation can be viewed here: [Waste Local Plan Presentation](#)

12.2 The Panel noted the issues relating to waste at 5.4 of the report and acknowledged that the report was an introduction to the journey of reviewing the plan. It was noted that there would be Member involvement at each stage of plan preparation, with the proposed timescale set out at 8.2 of the report.

12.3 Members acknowledged the detail at 5.2 of the report and noted that the adopted Waste Local Plan committed to a review every five years.

Conclusion:

12.4 The Cabinet Panel noted the Proposed Way forward for the Waste Local Plan review, as detailed in the report.

13. OTHER PART I BUSINESS

There was no other part I business.

**KATHRYN PETTITT
CHIEF LEGAL OFFICER**

CHAIRMAN _____

BUS SERVICES ACT 2017

Report of the Chief Executive and Director of Environment

Author: Matt Lale, Passenger Transport Manager, Tel: 01992 588633

Executive Member: Derrick Ashley (Environment, Planning & Transport)

1 Purpose of report

1.1 The purpose of the report is to give an update and inform the Panel of the Bus Services Act 2017 with a presentation by Steve Blackmore (Head of Partnerships, Competition and Ticketing Policy) from the Department of Transport who is one of the authors of the Act.

2 Summary

2.1 Steve Blackmore will be presenting an overview of the Bus Service Act 2017 which was given Royal Assent on the 27th April 2017. Steve has been heavily involved in writing the Bus Service Act 2017 and is currently writing the secondary legislation which will be published at the end of autumn 2017. Steve has been touring the country talking to local authorities and bus operators about the new Act and what it could mean for the industry and passenger transport.

3 Recommendation

3.1 This report is for information.

4 Background

4.1 Bus services are recognised as supporting the social and economic development of an area and can be an integral part of the local public transport system.

4.2 Passenger transport, of which buses are a key component, is recognised as an enabler to help facilitate economic and demographic growth and feature prominently in the emerging Local Transport Plan 4 and the Growth Vision for Hertfordshire.

4.3 The three main elements of the Act are:

- **Franchising**
- **Partnership**
- **Open Data and Ticketing**

4.4 The Act aims to remove barriers to improving services and providing simpler fares in areas which do not wish to move to a franchise model or cannot do so because

they do not meet the specified requirements (for example because they do not have a directly elected Mayor).

5 Franchising/Devolution proposals

- 5.1 The new legislation makes it possible for certain Local Transport Authorities to franchise networks of bus services. Franchising would allow bus services to be provided in the same way as they are in London, and the same way that national rail services are provided. It would give Local Transport Authorities the powers to plan, develop and regulate bus services, for example, offering passengers simpler, integrated Oyster-style ticketing and guarantees on service quality.
- 5.2 The Government consulted on the regulations and guidance, although this will not be officially defined until the end of the autumn.

6 Partnership

The Act promotes two types of partnerships:

6.1 Advanced Quality Partnership Schemes

- 6.1.1 'Advanced Quality Partnerships' replace the current Quality Partnership Scheme and can be based on measures taken by local authorities such as parking or traffic management policies as well as providing bus lanes. This broadens the requirements that can be placed on operators to include the marketing of bus services and publication of ticket offers and fares to passengers.
- 6.1.2 Subject to the publication of Regulations and statutory guidance, it is anticipated that Advanced Quality Partnership's will be available where the Local Transport Authority is satisfied they will:
- Contribute to implementing local transport policies and
 - Improve service quality or
 - Reduce/limit congestion, noise or air pollution or
 - Increase or prevent decline in patronage.

6.2 Enhanced Partnership Plans and Schemes

The Act has created a new type of partnership called an 'Enhanced Partnership'. The core principles are that:

- The partnership proposals can cover the whole or part of Hertfordshire as well as working more closely with districts.
- The partnership proposals must receive majority support from bus operators who would be affected by the proposals. The authority will have the legal responsibility for anything that is agreed within the partnership. For example new ticket initiatives.
- The partnership proposals can set standards that some or all local bus services must meet. These can include the timing or frequency of services, vehicle standards and ticketing products to be accepted.

- Contribute to the implementation of its local transport policies and bring benefits to passengers by improving services and/or reducing or limiting traffic congestion, noise or air pollution.

6.3 There are powers in the Act for taking on some of the Traffic Commissioners responsibilities. Registration powers can or are, in particular cases, required to transfer to the Local Authority under the enhanced partnership provisions in the Act. These powers are to allow the registration, variation and cancellation (including for poor performance) of registered local bus services that operate wholly within the geographical area of the scheme. The use of these powers is also subject to appeal by the bus operators to the Traffic Commissioner.

7 Open Data and Ticketing

7.1 Regulations made under this section will require operators to make certain data available. The data covered by the regulations might include information about routes, timetables, fares and ticketing as well as live real time information on vehicle location and bus arrival times. The information would be open to the public and could be used by software developers.

8 Financial Implications

8.1 At this early stage there are no immediate financial implications for the council, however, if the council were to explore opportunities with franchising there would be some investment required to establish the governance arrangements and delivery mechanisms.

9 Equality Implications

9.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equalities implications of the decision that they are taking.

9.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.

9.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.

9.4 No Equalities Impact Assessment (EqIA) was undertaken in relation to this matter as this report is to introduce a presentation and no decisions are to be made.

Background Information

None

HERTFORDSHIRE COUNTY COUNCIL
ENVIRONMENT, PLANNING & TRANSPORT
CABINET PANEL
THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM

GOVIA THAMESLINK RAILWAY PERFORMANCE UPDATE

Report of the Chief Executive and Director of Environment

Author: Trevor Mason, Team Leader – Rail Strategy and Liaison
(Tel: 01992 556117)

Executive Member: Derrick Ashley, Executive Member for Environment, Planning & Transport

1. Purpose of Report

1.1 To provide the Panel with an opportunity to consider current train performance on routes served by Govia Thameslink Railway in Hertfordshire.

2. Summary

2.1 Concerns about the performance of local train services were discussed by the Panel in December 2016.

2.2 Govia Thameslink Railway will attend the Panel meeting to provide an update on current performance and improvement programmes.

3. Recommendation

3.1 That the Cabinet Panel note the report and presentation.

4. Background

4.1 Govia Thameslink Railway (GTR) is the operator of the Thameslink Southern and Great Northern franchise which runs until 2021.

4.2 The main service patterns provided by GTR in Hertfordshire are the Great Northern route into London Kings Cross, the Great Northern inner suburban routes into Moorgate and the Thameslink services via London St Pancras.

4.3 The Hertfordshire stations served by these routes are Baldock, Bayford, Brookmans Park, Cuffley, Elstree & Borehamwood, Harpenden, Hatfield, Hertford North, Hitchin, Knebworth, Letchworth, Potters Bar, Radlett, Royston, St Albans City, Stevenage, Watton at Stone, Welham Green, Welwyn Garden City and Welwyn North.

4.4 GTR also provides services from the West Coast Main Line via the West London Line, and hence also operates a limited number of trains to Tring, Berkhamsted, Hemel Hempstead and Watford Junction.

5. Performance Levels

5.1 In response to concerns about the level of service provided to Hertfordshire residents, particularly around the high number of train cancellations, the Executive Member met representatives from GTR in September 2016. At this meeting, GTR set out their performance improvement programme.

5.2 GTR subsequently provided an update to the Panel at its meeting on 7 December. This included a discussion on overall performance, the new train fleet, driver training programme, the 2018 timetable consultation and customer information improvements.

6. 2018 Timetable Consultation

6.1 The Panel received a paper on GTR's current consultation on the 2018 timetable at its meeting in November 2016, and the County Council subsequently submitted a formal response.

6.2 A second round of consultation on the detailed weekday timetables was held from 26 June to 27 July 2017, with a further County Council response submitted.

6.3 Further consultation on weekend and late night services is expected.

7. Presentation by GTR

7.1 Representatives from GTR will attend the Panel to give an overview presentation and to answer any questions.

8. Financial Implications

8.1 There are no financial implications arising from this report.

9. Equality Implications

9.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equalities implications of the decision that they are taking.

9.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the

Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.

- 9.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 9.4 No Equalities Impact Assessment (EqIA) was undertaken in relation to this matter as this report is to introduce a presentation and no decisions are to be made.

Background Information

None

HERTFORDSHIRE COUNTY COUNCIL

**ENVIRONMENT, PLANNING & TRANSPORT
CABINET PANEL**

THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM

RAIL UPDATE INCLUDING EAST MIDLANDS FRANCHISE CONSULTATION

Report of the Chief Executive and Director of Environment

Author: Trevor Mason, Team Leader – Rail Strategy and Liaison
(Tel: 01992 556117)

Executive Member: Derrick Ashley, Executive Member for Environment, Planning & Transport

1. Purpose of Report

- 1.1 To provide the Panel with an opportunity to consider the County Council's response to the East Midlands Franchise consultation.
- 1.2 To provide an update on other key rail issues affecting Hertfordshire.

2. Summary

- 2.1 Responses to the East Midlands Franchise consultation are required by 11 October. The key issue for Hertfordshire is the proposal to change the stopping pattern in the Luton area, which could have implications for local connections.

3. Recommendation

- 3.1 To agree the response to the East Midlands Franchise consultation.

4. Background

- 4.1 Although the County Council has no direct responsibility for rail issues, it seeks to influence the rail industry in order to provide better levels of service for Hertfordshire residents and businesses. The County Council's overall aspirations are set out in its Rail Strategy.
- 4.2 The key areas of influence are in the specification of franchises and the programmes of infrastructure enhancements. The formal process for this is in the response to consultations from the Department for Transport (DfT) and Network Rail, although the County Council also seeks other opportunities to support Hertfordshire's aspirations.
- 4.3 This paper sets out a draft response to the current DfT consultation on the East Midlands franchise. It also sets out progress on other rail initiatives,

highlighting when the Panel is likely to have the opportunity to consider formal responses.

5. East Midlands Franchise

- 5.1 The East Midlands franchise covers intercity services on the Midland Main Line between London St Pancras and Corby, Leicester, Nottingham and Sheffield. Services are currently provided by East Midlands Trains, which is part of the Stagecoach Group. The current general pattern of services is shown in Appendix 1, which also shows the Thameslink local services which share the same route. Local services in the East Midlands have been omitted for clarity.
- 5.2 The franchise does not directly serve Hertfordshire. However, the calling point at Luton Airport Parkway provides connections from stations such as St Albans to Leicester and Nottingham, with services to Corby accessed via Luton. Derby and Sheffield can only be reached by a further change at Leicester.
- 5.3 The current franchise was due to end in March 2018, but this has now been extended to August 2019.
- 5.4 Consultation to inform the franchise specification (the Invitation to Tender) was published on 20 July 2017, with a deadline for comments of 11 October 2017. A series of public consultation meetings are being held, with a London event taking place on 19 September 2017.

6. Consultation Proposals

- 6.1 The consultation document sets out a number of options for changes to the current arrangements. The options which affect Hertfordshire are:
- Reduce stops at “stations used by commuters”, such as Luton, Bedford, Wellingborough and Kettering;
 - Introduce commuter trains on the Corby – London route to replace intercity services;
 - Providing additional East Midlands fast trains to Luton Airport Parkway.
- 6.2 The consultation document is not fully clear on what services would result from these options. It states that the proposal would result in no peak time intercity trains calling at Bedford, Luton and Luton Airport Parkway, but there is no statement on what the off-peak calling pattern would be. The option of increased stops at Luton Airport Parkway is also potentially contradictory to

the reduction of “commuter station” stops. Clarification on this is being sought from DfT.

- 6.3 Regardless of the actual detail, the principle of a reduction or removal of stops would decrease accessibility for Hertfordshire residents by adding in additional changes. This is demonstrated in Table 1.

Journey	Current	Proposed
St Albans to Leicester / Nottingham	Thameslink train to Luton Airport Parkway East Midlands train to Leicester / Nottingham [1 change]	Thameslink train to Luton Airport Parkway East Midlands commuter train to Kettering East Midlands train to Leicester / Nottingham [2 changes]
St Albans to Sheffield	Thameslink train to Luton Airport Parkway East Midlands train to Leicester East Midlands train to Sheffield [2 changes]	Thameslink train to Luton Airport Parkway East Midlands commuter train to Kettering East Midlands train to Leicester East Midlands train to Sheffield [3 changes]

- 6.4 To maintain suitable connections for Hertfordshire residents, it is important to maintain Luton Airport Parkway or Luton as a stopping point.

- 6.5 A draft response is set out in Appendix 2. It should be noted that the consultation meetings arranged by the DfT will not be held until after the Panel meeting. Therefore further changes to the draft response may be required.

7 Other Rail Updates

GTR 2018 Consultation

- 7.1 The Panel received a paper on GTR’s current consultation on the 2018 timetable at its meeting in November 2016, and the County Council subsequently submitted a formal response.
- 7.2 A second round of consultation on the detailed weekday timetables was held from 26 June to 27 July 2017, with a further County Council response submitted.

- 7.3 Further consultation on weekend and late night services is expected in October 2017.
- 7.4 A key issue is the proposed bus substitution between Stevenage and Watton at Stone from May 2018 until such time as an additional platform is built at Stevenage. An update on the likely time scale for this is expected to be included in Network Rail's East Coast Route Study to be published in late summer.

Crossrail 2

- 7.5 The Crossrail 2 scheme will provide additional capacity on the West Anglia Main Line for local and regional services, as well as providing a new service to central London from stations such as Broxbourne.
- 7.6 Further consultation on stations, level crossings and sidings is expected later this year. Full implementation of the scheme is scheduled for 2033.
- 7.7 In a joint statement on 24 July 2017, the Secretary of State and the Mayor of London gave their support to the scheme.
- 7.8 Broxbourne Borough Council, supported in principle by the County Council, is also pursuing the option of a new Crossrail 2 station at Turnford. Indications from TfL are that local funding will be required to ensure that this proposal is delivered.

East West Rail

- 7.9 East West Rail is a project to provide a new rail link from Oxford to Cambridge. The section from Oxford to Bedford is due to open in 2022, with the Bedford to Cambridge section scheduled to be completed by 2034.
- 7.10 Although the line will not pass through Hertfordshire, there will be benefits to local residents provided that there are good connections with existing train services at Bedford (on the Midland Main Line) and Sandy (on the East Coast Main Line).
- 7.11 The next update will be provided at the East West Rail Stakeholder Group on 5 September, although the final preferred route is not expected to be announced until summer 2018.

West Midlands Franchise

- 7.12 The West Midlands franchise, which provides local services on the main line through Watford Junction and on the Abbey Line, was awarded on 10 August 2017 to a consortium led by Abellio, and will commence in December 2017.

West Coast Main Line Post HS2

- 7.13 The delivery of High Speed 2 in 2026 will free up capacity on the West Coast Main Line, providing an opportunity to press for increased local services in Hertfordshire and for more intercity stops at Watford Junction.
- 7.14 The HS2 update provided by DfT in July 2017 included a range of options for new services on the existing line. These include scenarios which provide enhanced services for Hertfordshire. However, continued lobby will be required to ensure that these positive scenarios are adopted.
- 7.15 West Coast Rail 250, a consortium of Local Authorities of which the County Council is a member, has recently commissioned consultants to look at options for the freed up capacity. This will provide evidence to support lobbying activity.

West Midlands & Chilterns Route Study

- 7.16 Network Rail published the West Midlands & Chilterns Route Study in early August, following consultation held in June to September 2016. The only part of the route directly relevant to Hertfordshire is the Chilterns route to Aylesbury via Rickmansworth and Chorleywood.
- 7.17 The study includes an option to lengthen trains on this route, and notes that “calling patterns at Rickmansworth station will have to be altered to avoid an infrastructure intervention to make the station 6-car capable”. The County Council objected to this option in its consultation response, on the assumption that this means a reduction in train service, which currently is two trains per hour. The stated timeframe for delivering this option is 2024.
- 7.18 The issue will be raised with Network Rail at a London North Western Route meeting on 2 October 2017.

8. Forward Programme

- 8.1 A programme of upcoming key dates as regards to rail issues is shown in Appendix 3.

9. Financial Implications

- 9.1 There are no financial implications arising from this report.

10. Equality Implications

- 10.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equalities implications of the decision that they are taking.
- 10.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council’s statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to

read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.

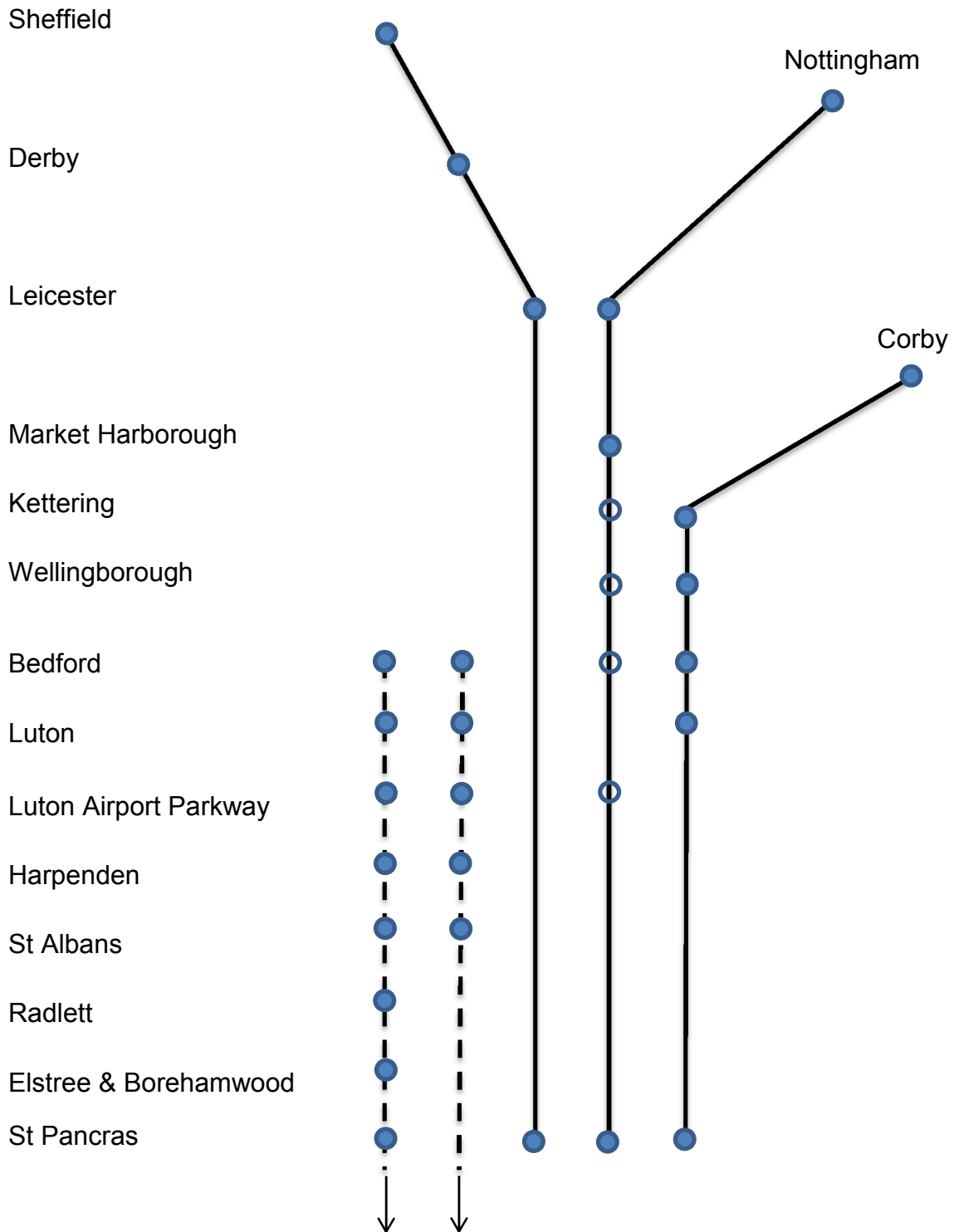
- 10.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 10.4 No Equalities Impact Assessment (EqIA) was undertaken in relation to this report because it does not introduce any changes that require an Equalities Impact Assessment (EqIA).

Background Information

East Midlands Rail Franchise Public Consultation – Department for Transport (July 2017)

High Speed Two – From Concept to Reality – Department for Transport (July 2017)

**Appendix 1 General Pattern of Current East Midlands Franchise
(also showing GTR Thameslink services)**



To Thameslink core

	East Midlands
	Thameslink
	Served by all trains
	Not served by all trains

Appendix 2 Draft response to East Midlands Rail Franchise Consultation

Given that the franchise does not directly serve Hertfordshire, the draft response below focusses only on the key service pattern issues. The other consultation questions are listed afterwards for completeness.

4. Do you agree with our proposed approach, which could reduce journey times on long distance services and increase the likelihood of getting a seat?

No. Hertfordshire County Council does not agree with the proposals.

The removal of station stops south of Kettering would severely reduce the attractiveness of rail travel for Hertfordshire residents making a journey to Nottingham, Leicester, Derby or Sheffield. This would be contrary to our Rail Strategy, which seeks improved connections with these cities.

Although the details in the consultation document are not fully clear, it appears that an additional change of trains would be required for all journeys from Hertfordshire, and that a higher proportion of the journey would be on slower commuter trains. For example, a journey from St Albans to Sheffield would require three changes, making it highly unattractive.

Hertfordshire County Council therefore requests that main line train stops are retained at Luton Airport Parkway so that the current level of connectivity is maintained.

Furthermore, the county council would wish to see all main line trains, including the Sheffield services, calling at Luton Airport Parkway so that connectivity is enhanced..

The concept of commuter services on the Corby route is supported in principle. If this concept is pursued, Hertfordshire County Council would wish to these services call at St Albans.

13. Would you like additional fast trains from London each hour to call at Luton Airport Parkway if this meant that, as a trade-off:

- Some services are withdrawn from other stations, such as Luton?*
- Journey times to other stations may increase?*
- Freight capacity and/or frequency is reduced?*

It is essential that Luton Airport Parkway is retained as a stopping point for East Midlands intercity services in order to provide connecting services for Hertfordshire residents.

An increase in the number of trains stopping at the station would improve connectivity for Hertfordshire residents, and hence the proposal is supported in principle.

Hertfordshire County Council's aspirations is for all main line services to call at Luton Airport Parkway in order to increase connectivity to cities further north.

Other questions included in consultation document

1. How do you think closer co-operation between staff in Network Rail and the operator of the next East Midlands franchise can be achieved?
2. How can the operator of the next East Midlands franchise engage with community rail partnerships or heritage railways to support the local economy to stimulate demand for rail services in the region?
3. Do you think that the operator of the train service, stations and support services should take the following into consideration when they run the franchise:
 - The environment?
 - Equality?
 - Communities in the areas they operate?If so, how should they do this?
5. *What are your suggestions about how to mitigate the potential loss of some direct services between Oakham, Melton Mowbray and London?*
6. What are the particular services, routes and times of day when you think additional seats for passengers are most needed?
7. Which on-board facilities in order of preference (these are listed in the response form), are most important to you:
 - On short distance journeys (up to 60 minutes).
 - On long distance journeys (over 60 minutes).
8. What other on-board facilities should be:
 - Introduced?
 - Improved?
9. How could your local train services be changed to better meet your current and future needs? (A number of options are listed in the response form).
10. What additional services would you wish to see provided in the next franchise?
11. *Do you support the proposal to reopen the line between Shirebrook and Ollerton to passenger trains? If so, what sources of investment could be identified to fund this proposal?*
12. Do you think that the current number of services on the Midland Main Line to and from Luton Airport Parkway is adequate?

14. *How could the train service be better at meeting the needs of passengers travelling to and from the airports within the East Midlands franchise?*

15. *What ideas do you have for improving the current service on the Liverpool – Norwich route?*

16. *Would you support changing the destinations served by the existing Birmingham – Stansted Airport service, such as serving Norwich instead of Stansted Airport?*

17. *Are you in favour of these route changes:*

- *Liverpool – Norwich.*
- *Birmingham – Nottingham.*
- *Birmingham – Leicester/Stansted.*

18. *Would you like to see any other routes transferred to or from the East Midlands franchise? If so, which routes?*

19. *Do you support increasing the frequency of train services in Lincolnshire despite the impact this may have on level crossing users?*

20. *How can we improve all aspects of your door-to-door journey experience?*

21. *What more could be done to improve access to, and provide facilities at stations, including for those with disabilities or additional needs?*

22. *How could the next franchise operator make better use of stations for community and commercial purposes?*

23. *What could be done to improve the way tickets are sold and provided?*

24. *What changes to the fares structure would be of benefit to you?*

25. *What additional information would be useful to you when planning or making your journey, such as seat availability, journey times and connections? How would you like it to be communicated to you?*

26. *How could staff be more effective in providing the service and assistance that passengers need on a modern railway network?*

27. *How would you prefer the next operator to engage with:*

- *You as an individual?*
- *Your organisation (if applicable)?*

28. *What would make you feel safer and more secure on your journey in relation to:*

- *Trains?*
- *Routes?*
- *Stations?*
- *Other?*

29. How do you think more investment might be put into the railways to match money already coming from government through Network Rail?

30. Are there any other areas that you think it is important for us to consider that have not already been discussed in this consultation?

Appendix 3 Rail Key Dates

	Lead	Date
2017		
East Coast Route Study	NR	Late Summer
GTR consultation on 2018 weekend / late night services	GTR	October
East Midlands Franchise consultation closes	DfT	11 October
Crossrail 2 consultation	NR / TfL	tbd
West Midlands Franchise commences	DfT	December
2018		
GTR 2018 Timetable Phase 1	GTR	May
GTR 2018 Timetable – full delivery	GTR	December
Crossrail (Elizabeth Line) fully opened	TfL	December
Beyond 2018		
West Coast Partnership Franchise commences	DfT	April 2019
East Midlands Franchise commences	DfT	August 2019
TSGN Franchise consultation	DfT	2020
Chilterns Franchise consultation	DfT	2020
InterCity East Coast Franchise consultation	DfT	2021
TSGN Franchise commences	DfT	September 2021

Longer-Term Major Scheme Delivery

	Lead	Date
HS2 Phase 1 completed	DfT	2026
Crossrail 2 completed	DfT / TfL	2033
HS2 Phase 2 completed	DfT	2033
East West Rail Central Section completed	EWR	2034

Future Panel Papers

Panel Date	Potential Rail Papers
5 October 2017	<ul style="list-style-type: none"> Update on East West Rail
1 November 2017	<ul style="list-style-type: none"> Crossrail 2 consultation GTR weekend / late night services WCML post HS2 update
5 February 2018	
9 March 2018	<ul style="list-style-type: none"> Rail Strategy Refresh

HERTFORDSHIRE COUNTY COUNCIL
ENVIRONMENT, PLANNING AND TRANSPORT
CABINET PANEL
THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM

Agenda Item No.

6

RESPONSE TO DRAFT LONDON MAYOR'S TRANSPORT STRATEGY

Report of the Chief Executive and Director of Environment

Author:- James Povey, Team Leader Transport Policy and Growth (Tel: 01992 556798)

Executive Member:- Derrick Ashley (Environment, Planning & Transport)

1. Purpose of report

1.1 The purpose of the report is for Members to review and provide any comment on the draft County Council response to the draft London Mayors Transport Strategy 2017.

2. Summary

2.1 On 21 June 2017 the Mayor of London, published his draft of the Mayor's Transport Strategy. This sets out the Mayor's policies and proposals to reshape transport in London over the next 25 years. A public consultation on the draft strategy is open until 2 October 2017.

2.2 Hertfordshire borders London to the north and the transport plan for the capital is highly significant given existing travel patterns, growth pressures and infrastructure requirements. The draft County Council response is supportive of the Mayor's draft transport strategy but raises a number of important issues.

3. Recommendation/s

3.1 It is requested that Panel:
Considers the Mayor's draft Transport Strategy and comments on the draft county council response.

3.2 The response will then be finalised by the Director of Environment in consultation with the Executive Member of Environment, Planning and Transport and sent off to the GLA by 2nd October 2017.

4. The Draft Mayor's Transport Strategy 2017

- 4.1 The Draft Mayor's Transport Strategy (MTS) sets out plans to transform London's streets, improve public transport and create opportunities for new homes and jobs. The public consultation on these plans is now open until 2nd October 2017.
- 4.2 Appendix 1 is the executive summary to the Draft MTS. The executive summary and full draft plan can also be found by visiting <https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/the-mayors-transport-strategy>. This web link also includes a 'have your say' link which directs to an online survey for less detailed, individual responses. It also highlights the transport challenges London faces, the Mayor's approach and the supporting evidence base gathered by TfL. A useful video of the Mayor explaining the approach behind the strategy is also available on this webpage.

5. The draft County Council response to the Draft MTS 2017

- 5.1 The draft County Council response is included as Appendix 2. Whilst it is broadly supportive of much of the content, it seeks to raise a number of important issues. In particular significant concern is expressed at the omission of the Metropolitan Line Extension (MLX) scheme from the MTS.
- 5.2 The response highlights that the transport strategy for London cannot be made in isolation from neighbouring areas given the significant interrelationship between London and neighbouring authorities. The MTS should not just focus on the fixed city boundary but include areas beyond, considering transport links across borders, in particular with areas experiencing substantial growth.
- 5.3 The response also highlights the need for improvements in how London, Hertfordshire and other neighbouring authorities work with each other to manage expected growth and the required transport infrastructure. The need for a wider political grouping covering London and surrounding areas to oversee passenger transport matters is suggested with a Capital Region Transport Board. The response suggests an initial first step would be the inclusion of Elected Member representatives on the TfL board from authorities bordering London.
- 5.4 Deep concern is expressed at the absence of the MLX scheme in the draft MTS investment programme, and the Mayor has been asked to

reconsider this. The response highlights how the project can play a critical role in supporting the continued growth of London.

- 5.5 In addition to the points above, the response seeks to highlight a number of other issues. This includes the importance of investment in the rail links between Hertfordshire and London, recognising that overcrowding is a major problem and supports the MTS aim to increase capacity. Commitment to investment in commuter rail stations is encouraged and for improvements to passenger information.
- 5.6 Regarding M25 reliability and capacity the response expresses support for managing the road jointly to cater for essential journeys whilst not increasing car dependency within or outside of London. Due to the role the A414 and A405 play in providing relief and resilience to the M25, the response seeks mayoral support for the County Council's developing A414 strategy and the investment plans that will feature in this.
- 5.7 The response welcomes opportunities to improve the London cycle network however, given strong travel patterns between London and Hertfordshire, suggests inclusions of links across the border.
- 5.8 Support is expressed for the Mayor's ambitions to achieve modal shift to more sustainable modes and to tackle air quality issues. This includes reference to the County Councils previous responses to proposals for an Ultra-Low Emission Zone (ULEZ), and support for the phasing in of more efficient bus vehicles, particularly those which operate within Hertfordshire.
- 5.9 The response supports the delivery of Crossrail 2 and early West Anglian Main Line four tracking.
- 5.10 The draft MTS aligns well with Hertfordshire's new Local Transport Plan by supporting ambitions to achieve travel behaviour change and modal shift, however the response highlights that Hertfordshire is seeking to achieve this whilst in a weaker position to London which has more powers over transport provision and funding. The draft new Local Transport Plan for Hertfordshire will be discussed at the October 2017 meeting of the Environment, Planning and Transport Cabinet Panel.

6. Next Steps and the Public Consultation

- 6.1 Subject to any amendments requested by the Panel, the county council response will be agreed by the Director of Environment in consultation with the Executive Member for Environment, Planning and Transport.

7. Financial Implications

- 7.1 There are no financial implications directly related to this report, as it is a proposed consultation response to a neighbouring Authority's strategy.

8. Equality Impacts

- 8.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equality implications of the decision that they are taking.
- 8.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equality Impact Assessment (EqIA) produced by officers.
- 8.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 8.4 The MTS approach and vision looks to make travel options accessible and appealing to all, reducing health and economic inequalities and removing barriers and taking steps to create equality. The MTS will be subject to an Integrated Impact Assessment (IIA), a systematic process for assessing the likely sustainability effects of the strategy in order to ensure they are fully considered and addressed at the earliest appropriate stage of decision-making. The transport policies and proposals within the draft strategy are subject to the following assessments: Strategic Environmental Assessment (SEA); Habitats Regulation Assessment (HRA); Equality Impact Assessment (EqIA);

Health Impact Assessment (HIA); Assessment of Economic Impact (AEI); and Community Safety Impact Assessment (CSIA).

Background Papers

Appendix 1: Mayor's Transport Strategy for London

Appendix 2: Hertfordshire County Council's Response Letter

MAYOR OF LONDON



Mayor's Transport Strategy Draft for public consultation Executive summary

JUNE 2017

Copyright

Greater London Authority
June 2017

Greater London Authority
City Hall
The Queen's Walk
More London
London SE1 2AA

www.london.gov.uk
enquiries 020 7983 4000

The Mayor's Transport Strategy

The Mayor's Transport Strategy is the statutory document that sets out the policies and proposals of the Mayor of London, Sadiq Khan, to reshape transport in London over the next 25 years. It builds on the vision for a better London that the Mayor outlined in 'A City for All Londoners', and takes forward the approach set out in 'Healthy Streets for London'.

It is an ambitious strategy that puts people's health and quality of life at the very heart of planning the city's transport. Along with the new London Plan and the Mayor's other strategies for economic development, the environment, housing, health inequalities and culture, it provides the blueprint for making London a city that is not only home to more people, but is a better place for all of those people to live in.

This executive summary provides an overview of the draft strategy but does not substitute the full draft strategy, which can be viewed at london.gov.uk/transportstrategy.

Have your say

The Mayor would like to hear your views on his draft transport strategy. To fill in the consultation questionnaire, go to tfl.gov.uk/mayors-transport-strategy. Alternatively, you can email your comments to consultations@tfl.gov.uk or send by post to FREEPOST TFL CONSULTATIONS.

The public consultation will be open until 2 October 2017.

Paper copies of this executive summary, the full draft Mayor's Transport Strategy and the consultation questionnaire are available on request. Please get in touch using the details above if you would like information in alternative formats.

Following analysis and consideration of all the responses received, the Mayor's Transport Strategy will be published in 2018.

By 2041, rising public transport demand means that, without further action:

71% of travel on London Underground in the morning peak would be in crowded conditions

65% of travel on National Rail in the morning peak would be in crowded conditions

Transport and quality of life

London's transport system helps to shape the city. As well as allowing people to get around, it has a big impact on quality of life – street space defines what London is like as a place to live and work, and public transport is part of many people's daily routine. Creating a city for all Londoners will require an approach that will help London to grow in a way that benefits everyone.

London's challenges

In recent years, there have been important changes in the way people travel, but car use is still too high for a growing city. People remain dependent on their cars because street environments are not designed to promote walking and cycling, because overcrowded or unreliable services make public transport unattractive, or because parts of London have been planned around car use to the extent that few alternatives are available. As London's population grows from 8.7 million today to an estimated 10.5 million in 25 years' time, pressure on the city's transport system and the demand for new homes and jobs will increase. Limited space means that building more roads is not an option. For London to function well and be a great place to live, the way people move around needs to be re-examined.

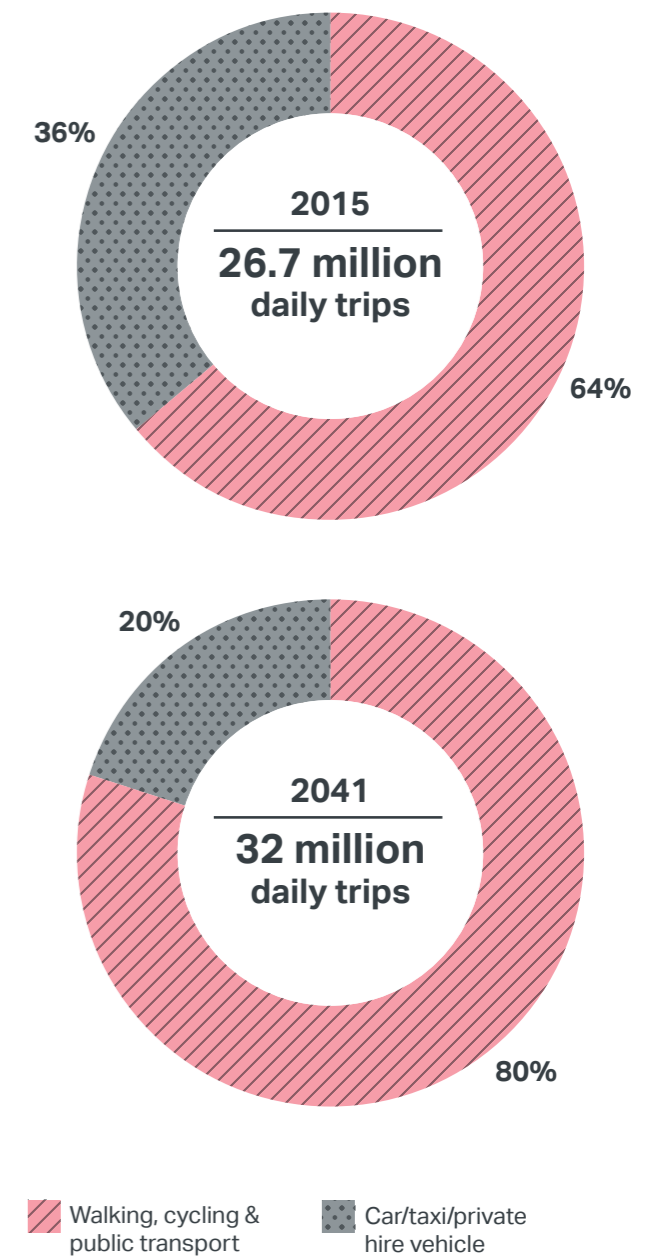
The vision

Reducing the need to use cars will provide huge benefits for all Londoners. More walking and cycling can make everyone healthier. Older people, the very young, disabled people and those living on lower incomes are most likely to be affected by the problems associated with a car-dependent city, such as poor air quality and road danger. Therefore, reduced car use will make London fairer. Streets will function more efficiently, with less congestion and pollution. Public transport and essential commercial journeys will run more easily and there will be more space for people.

London will grow in a sustainable way, not only improving people's lives but supporting London's growing economy, the benefits of which will be felt across the whole of the UK.

For all of these reasons, this new draft transport strategy aims to change the way people choose to travel so that, by 2041, 80 per cent of all Londoners' trips will be made on foot, by cycle or by public transport. This will be a significant change from today, when only 64 per cent of journeys are made by these healthy, efficient and sustainable forms of transport.

FIGURE 1: MODE SHARE 2015 AND 2041 (EXPECTED)





▲ Central London vision: High levels of public transport connectivity are essential to central London's success. Given its limited space, a steady reduction in private car use is necessary, and walking, cycling and public transport use must increase. Deliveries must become more efficient through consolidation, rescheduling or switching to more sustainable vehicles.

Agenda Pack 38 of 454



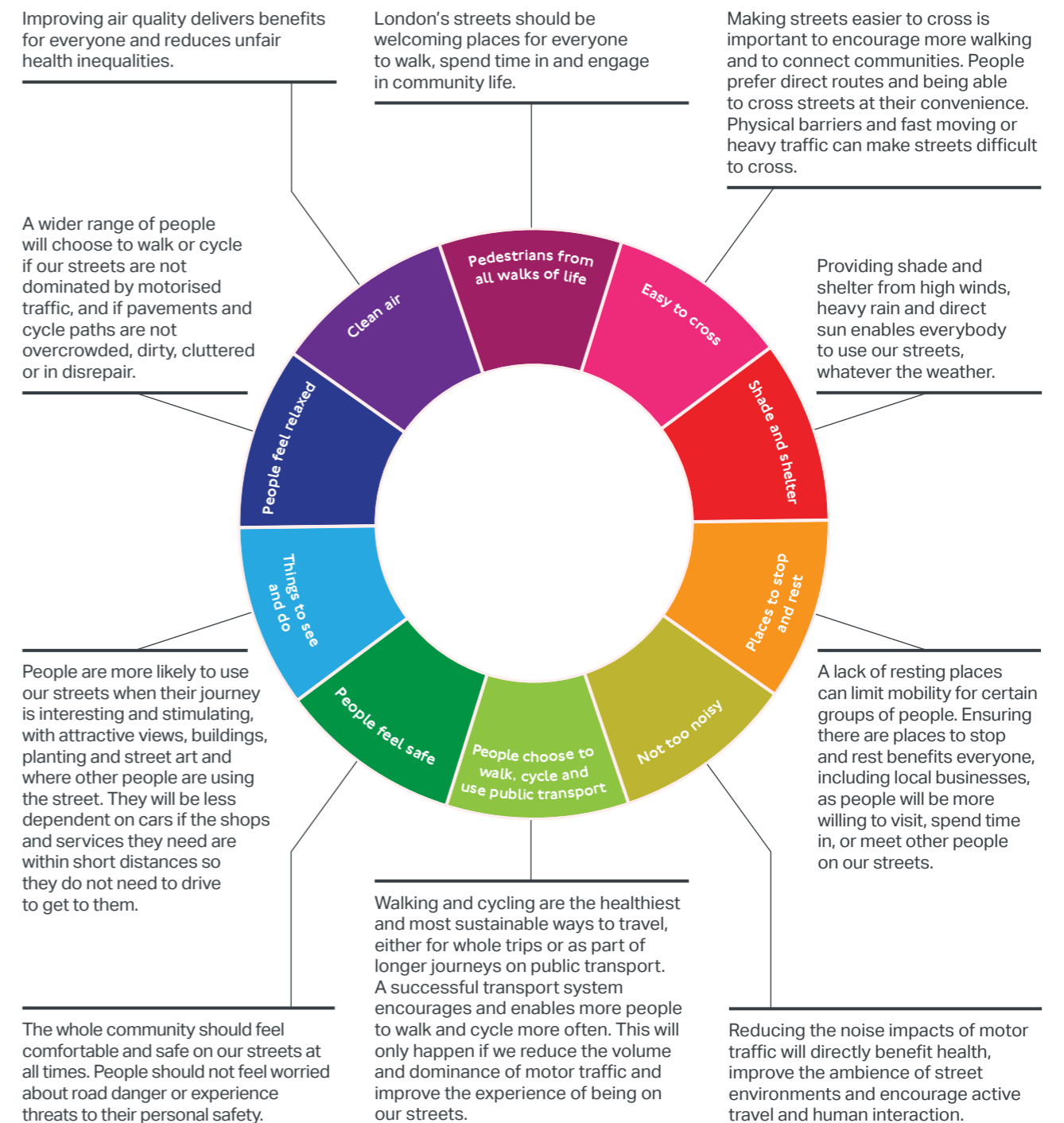
The Healthy Streets Approach

This draft transport strategy uses the Healthy Streets Approach to prioritise health and quality of experience in planning the city. Good performance against the ten Healthy Streets indicators (Figure 2) shows that streets are appealing places to walk, cycle and spend time, and that the transport system as a whole is accessible and inclusive to all. Improvements against all the indicators across the city's streets will radically transform the day-to-day experience of living in London and will help to create a city that is not only home to more people, but is a better place for all of those people to live in.

Applying the Healthy Streets Approach means that this transport strategy will create streets that are appealing to people because they are not dominated by cars. It will mean improving public transport services and better linking them with the walk or cycle to the stop or station, so that the whole journey becomes a more attractive option than using a car. It will mean planning new homes and jobs around walking, cycling and public transport so that London's growth does not lead to greater car dependency.

◀ Outer London vision: Improving walking and cycling environments and providing better bus and rail services will reduce car dependency.

FIGURE 2: THE TEN HEALTHY STREETS INDICATORS



By mode of travel, the amount of time spent being physically active during an average journey is:

by car

<1 minute

by public transport

8–15 minutes

on foot

17 minutes

by bicycle

22 minutes

Healthy Streets and healthy people

Creating streets and routes that encourage walking, cycling and public transport use will reduce car dependency and the health problems it creates. Streets make up 80 per cent of London's public space, so making them Healthy Streets has the potential to dramatically improve the experience of living, working and spending time in the city.

Most people can get the minimum physical activity they need to stay healthy by walking or cycling as part of trips they already make. Improving the experience of being on streets is the most effective way of encouraging more people to do this. The Mayor's aim is, by 2041, for all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day.

Local streets and neighbourhoods will be designed to make them pleasant places for people to walk, cycle, use public transport and spend time. Walking will be prioritised across London's streets, including around schools, so this easy means of getting around becomes even easier and more appealing. Streets will be made more accessible for disabled people, with wider, clutter-free pavements and crossings that are easier to access and use. A new London-wide network of strategic cycling routes – which will also be good environments for

walking – will transform the convenience and experience of cycling for all types of trips. More traffic-free areas will be created, starting with the transformation of Oxford Street and including trial closures of streets to motor traffic to help people see their streets differently.

Reducing road danger will make people feel safer and more comfortable walking and cycling. The Mayor's aim is that no one is killed in, or by, a London bus by 2030, and for deaths and serious injuries from road collisions to be eliminated by 2041. Designing streets that encourage lower speeds and demanding safer standards for buses and lorries will help to make this happen.

Transport emissions can blight streets, harming health and contributing to climate change. London must meet legal pollution limits as soon as possible, which requires an earlier introduction and expansion of the Ultra Low Emission Zone. The Mayor's aims are for all taxis and private hire vehicles to be zero emission capable by 2033, for all buses to be zero emission by 2037, for all new road vehicles driven in London to be zero emission by 2040, and for London's entire transport system to be zero emission by 2050. Air quality and climate change are such pressing issues with such dire potential consequences that London will provide international leadership.

A shift away from car use will help London's streets work more efficiently, reducing congestion so bus services can run reliably, and essential freight and business journeys can keep London operating. Working to achieve fuller vans and fewer missed deliveries, the Mayor aims to reduce freight traffic in the central London morning peak by 10 per cent by 2026. The Mayor also aims to reduce total traffic in the capital by 10-15 per cent by 2041, with London boroughs leading on reducing traffic in their areas. The Mayor will give consideration to the development of the next generation of road user charging systems and will seek additional powers from the Government to limit the number of private hire vehicles in London.

A good public transport experience

Public transport is the most efficient way for people to travel distances that are too long to walk or cycle, and a shift from private car to public transport could dramatically reduce the number of vehicles on London's streets.

Applying the Healthy Streets Approach will make the switch from car to walking, cycling or public transport simpler. Stations, stops and streets will be designed so onward journeys by walking, cycling and public transport are the easiest choice, with the whole journey becoming as straightforward as a car trip.

To make public transport services more attractive, they will become easier and more pleasant to use. New technologies will provide better travel information and wider benefits, such as bringing WiFi to Tube tunnels. Buses will be given proper priority, and services planned to match demand.

Fares will be kept affordable. Services and infrastructure will be designed to be more accessible and inclusive. This includes making more stations step-free. The Mayor will aim to halve the extra time it takes for people who need to use step-free stations to get around on the Tube network by 2041.

Following the opening of the Elizabeth line, investment in new trains and technology on the Tube and rail networks, including an extension of the Bakerloo line to Lewisham and beyond, will help tackle crowding and create more capacity on existing lines. To bring rail services up to TfL standards, and to keep fares affordable, suburban services should be devolved to the Mayor's control, creating a London suburban metro.

Crossrail 2 is a major new rail project that must be at the heart of London's response to its current challenges. It will benefit businesses, residents and commuters across London, the Wider South East and the whole nation. It will enable London's highly productive economy to continue to grow by helping 270,000 more people get into the city centre in the morning peak. It will support 200,000 new jobs, and unlock 200,000 new homes – more than 30 per cent of them outside of London.

People need to make local trips, however many have no choice but to use cars because there are no suitable public transport alternatives. New and better services are required, particularly in outer London where car use is high and public transport links are relatively poor. Providing reliable bus services and improving rail services are essential to avoid reliance on cars.

FIGURE 3: CROSSRAIL 2 ROUTE (CONSULTATION 2015)





▲ The whole journey: Reducing car dependency means improving the whole journey experience of using public transport, walking and cycling. Areas around stations should be designed to make active and sustainable modes the easiest choice.

New homes and jobs

More people than ever want to live and work in London. Each year, 50,000 new homes are needed to accommodate this demand, and by 2041 around 1.2 million more jobs will need to be created. People want to live and work in well-connected places so transport will help to make this growth happen.

Planning for these changes provides a unique opportunity to reshape the city, learning from mistakes made in the past. Transport has an important role to play in making sure that London's growth is 'good growth' – providing more opportunities, delivering affordable homes and improving quality of life by creating places where people can enjoy living and working in good health.

People should be able to live in areas where many of the places they want to go to are within walking and cycling distance, and good public transport connections are available for longer trips. The places they live in should be planned around people, not vehicles, with attractive public spaces, cycle parking and storage. New developments will be expected to be designed to encourage efficient, safe and low-emission delivery and servicing trips, that do not disrupt local people.

Applying the Healthy Streets Approach to planning transport creates a set of principles that will help London grow in a way that works for Londoners.

The transport principles of 'good growth'

- Good access to public transport
- High-density, mixed-use developments
- People choose to walk and cycle
- Car-free and car-lite places
- Inclusive, accessible design
- Carbon-free travel
- Efficient freight

The Mayor will use these principles to help create the new homes and jobs London needs in the coming years.

Crossrail 2, the Bakerloo line extension and other new public transport connections will generate opportunities for new homes and jobs across London. Bus services will be developed to support regeneration and new development, including pilots of new types of high-capacity, high-frequency routes and demand-responsive services. New river crossings that prioritise walking, cycling and public transport will be developed to connect communities, such as the Rotherhithe to Canary Wharf bridge and a DLR extension to Thamesmead.

The Mayor will also take full advantage of any TfL land that could be used to deliver more housing, beginning the construction of 10,000 homes on TfL land by 2020/21 – with 50 per cent of those brought to market since May 2016 being affordable.

Good growth: The principles will be applied to new developments to create high-density, mixed-use places. ►





▲ Inner London vision: New development for inner London's growing population should be designed so that walking and cycling are the most appealing choices for getting about locally. Good bus services are particularly important in inner London, and improved suburban rail services are also needed to reduce car dependency.

Summary: vision and aims of the strategy

This draft strategy is the start of an ambitious plan that will reshape London over the next 25 years.

The Mayor's vision is to create a future London that is not only home to more people, but is a better place for all those people to live in. At the heart of this vision is the aim that, by 2041, 80 per cent of Londoners' trips will be made on foot, by cycle or using public transport.

Healthy Streets and healthy people

- All Londoners to do at least the 20 minutes of active travel they need to stay healthy each day
- No one to be killed in or by a London bus by 2030, and for deaths and serious injuries from all road collisions to be eliminated from the streets by 2041
- All taxis and private hire vehicles to be zero emission capable by 2033, for all buses to be zero emission by 2037, for all new road vehicles driven in London to be zero emission by 2040, and for London's entire transport system to be zero emission by 2050
- Reduce freight traffic in the central London morning peak by 10 per cent on current levels by 2026, and to reduce total London traffic by 10-15 per cent by 2041

A good public transport experience

- Open Crossrail 2 by 2033
- Create a London suburban metro by the late 2020s with local train services devolved to the Mayor
- Improve the overall accessibility of the transport system including halving the average additional time taken to make a public transport journey on the step-free network compared to the full network

New homes and jobs

- Incorporate the transport principles of 'good growth' in regeneration and new developments

Expected outcomes

By 2041, the strategy is expected to have delivered the central aim of 80 per cent of Londoners' trips made on foot, by cycle or using public transport. The following outcomes are also expected:

Healthy Streets and healthy people

- London's streets will be healthy and more Londoners will travel actively
- London's transport system will be safe and secure
- London's streets will be used more efficiently and have less traffic on them
- London's streets will be clean and green

A good public transport experience

- More people will travel on an expanded public transport network
- Public transport will be affordable and accessible to all
- Journeys by public transport will be pleasant, fast and reliable

New homes and jobs

- Sustainable travel will be the best option in new developments
- Transport investment will unlock the delivery of new homes and jobs

Making it happen

A great deal of determination, investment and collaboration will be required to make this vision a reality. The Mayor and TfL will work with the Government, other transport operators, businesses, stakeholders and others to fund and deliver the proposals set out within the strategy.

The boroughs in particular have an important role to play. During 2018, they will draft their Local Implementation Plans, demonstrating how they will achieve the aims of this strategy locally.

Ultimately, this draft transport strategy is about making London a better city for all Londoners. The Mayor would therefore like to hear your views.

Hertfordshire County Council



Freepost
Transport for London
Consultations

Hertfordshire County Council
County Hall
Pegs Lane
SG13 8DE

Email:
Telephone:
Date: 7th August 2017

Dear Mayor Khan,

Hertfordshire County Council's Response to the Mayor of London's Transport Strategy

I am writing to you to offer Hertfordshire County Council's (HCC) views on the recently published draft Mayor of London's Transport Strategy (MTS). HCC supports the majority of the content contained within the MTS and in particular the focus on London's future growth which we recognise as substantial. Given the expected revisions to population growth projections and further unmet housing needs which need to be accommodated outside of London, we believe it is imperative that London works together with the wider East and South-East of England to plan collaboratively for housing and the transport infrastructure required for this, supporting the MTS principle of 'good growth'.

The interrelationship between London and the local authorities over its boundary are substantial, and residents of both areas expect seamless travel across the boundary. In view of this Hertfordshire County Council has always supported Transport for London (TfL) taking over suburban rail services. London cannot plan its transport system in isolation, and the draft MTS pays insufficient regard to cross boundary movement. We support growth being facilitated in a sustainable way and support the targets for cutting pollution and congestion, however working better together to manage this growth and the required transport infrastructure is critical. The MTS should include greater consideration of transport links across its border particularly where there are areas experiencing substantial growth, such as in Hertfordshire.

Linked with the above is the pressing need for a wider political grouping for London and its hinterland. As a result Hertfordshire County Council is interested in the concept of establishing a Capital Region Transport Board. As a first step we would like to see representation for authorities bordering London on the TfL Board.

The MTS aligns well with the county council's own Local Transport Plan currently in development, supporting our own ambitions of achieving travel behaviour change and modal shift. However, it should be recognised that we are making every effort to achieve our objectives in a very different position than London which has more powers over transport provision and funding.

Before providing comments on specific MTS content and proposals, I would like to highlight the some of the interrelationships referred to already between Hertfordshire and London, which reinforce the need for closer cooperation on planning for growth and transport.

Travel Patterns

There are very close links and common issues between Hertfordshire and London. 26% of commuter journeys which originate in Hertfordshire are to London (15% to central areas and 11% non-central areas). Significant trip pairs exist between outer London and Hertfordshire include

Cheshunt and Enfield, Borehamwood and Barnet, Watford and Harrow, Hillingdon and Brent, Potters Bar and Barnet. There is a high car mode share for these trips ranging from a car mode share of 57% from Brent to Watford, to as high as 86% from Watford to Hillingdon.

In addition to forming much of London's northern border, Hertfordshire is a significant source of London workers, and destination for London residents. London's population growth needs are likely to strengthen this relationship in future decades. Given this interaction it is important the transport offer is consistent and the connections exist to support movement by non-car modes.

Common Issues

There are also a lot of common issues between Hertfordshire and the outer London areas it borders such as difficulties making orbital/ east west movements by public transport, high car mode shares, deficiencies in the cycling network/ provision, the quality of urban realms reduced by traffic dominance, and deficiencies in multi modal interchange at public transport hubs.

Because of these links and common issues mentioned above, we would like to work with TfL more on areas of innovation and provide a more consistent transport offer for London commuters such as with shared mobility (the shared use of a vehicle, bicycle, or other mode) options and smart ticketing etc.

Comments on MTS content and proposals

Bus and Cycle Links between outer London areas and Hertfordshire

HCC supports the intention to redistribute resources to outer London and areas of housing growth to maximise potential mode shift to buses. This should include better bus links with Hertfordshire. The MTS includes mode share targets (P276) with an aim from 2015 to 2041 to increase the share by walking, cycling and passenger transport from 20% to 30% for trips from Outer London to external areas, and 55% to 80% for inner London to external areas. Given the travel patterns outlined in the previous section, better connections by bus and cycling could support these aims.

Figure 4 on page 53. We welcome the opportunities to improve London's cycling network, however, few of the cycle routes extend beyond the London boundary. We would like to suggest the inclusion of links to Potters Bar, Borehamwood and Watford given the significant travel patterns.

Crossrail 2 (p74) and West Anglia Main Line Four Tracking

HCC supports Proposal 56 for the delivery of Crossrail 2 by 2033. The scheme is vital for adding required capacity to the West Anglia Main Line.

HCC also supports Proposal 79 of Crossrail 2 and would like to highlight the need for it to "be complemented by a network of streets that enable and encourage walking and cycling and deliver a reliable and clean bus and freight network" to reach its full potential and optimise the places it serves. We believe this should apply to stations outside greater London. We look forward to working with Crossrail 2, TfL and the Mayor, as well as Broxbourne Borough Council to develop plans for the stations in Hertfordshire. This includes working with these partners and Network Rail on new Turnford station proposal in Broxbourne.

HCC supports early upgrades and Four Tracking of the West Anglian Main Line in advance of Crossrail 2, which could accelerate the delivery of the growth Crossrail 2 is forecast to support (p223). Importantly, Stansted Airport is expected to exceed 35 million passengers per annum by 2025 and aims to make full use of its remaining capacity within its existing runway which could mean as many as 45 million passengers per annum. Stansted is already successful in attracting trips by sustainable modes however, the upgrade to the West Anglian Main Line will support the further expected growth by improving transport access by a sustainable mode and providing economic benefits by creating more jobs.

Metropolitan Line Extension (p179)

Our Executive Member for Environment, Planning and Transport wrote to you in letter dated 9th August 2017 concerning the Metropolitan Line Extension (MLX) project in Watford. We are deeply concerned that the Metropolitan Line Extension (MLX) is not included in the investment programme included in Proposal 58. We would urge this to be reconsidered considering the project plays a critical role in providing significant opportunity to support London's continued growth and wider economic impacts over the coming years.

The MTS supports improvements to public transport to enhance travel into and out of London, and to strengthen the transport links between London and areas beyond the GLA boundary to support growth. The MLX will contribute to London's future housing requirements, generating additional fare revenues for TfL and exhibit the 'good growth' principle promoted in the MTS. Given this, we strongly believe that the MLX scheme should be mentioned in the MTS.

The MLX scheme already has a significant amount of funding committed to it and can be delivered in the short term. It is critical to delivering sustainable growth in Watford and the North London area bringing significant economic benefits not just to Hertfordshire but to residents and businesses in London. In previous correspondence, you indicated the need for the MLX project to have full funding in place before it can be progressed further however, we note that the MTS includes a number of potential proposals around new rail links or extensions that appear to be unfunded. Failure to include the MLX scheme in the MTS could give the impression to other local authorities and potential investors that London is not looking at the impacts of its growth agenda on the areas surrounding London, or recognising the need to co-invest in infrastructure schemes that would support its growth plans.

Extension of Suburban Rail Management by TfL (p157)

HCC supports the aim for suburban rail services to equal the frequency and reliability standards of TfL run lines as set out in Proposal 60. This will improve journey times, capacity and help provide seamless interchanges, delivering a more consistent level of service for customers to areas beyond London.

HCC also supports the devolution to TfL of Moorgate services outside of London (i.e. to Welwyn Garden City and Hertford / Stevenage under Proposal 61). We would like to see this as a first step in more formal coordination of passenger transport services between London and its immediate neighbouring authorities.

M25 reliability and capacity (p33)

HCC supports managing the M25 as a strategic road jointly with Highways England and TfL to cater for essential journeys, without increasing car dependency within or outside of London. The government's recently published Transport Investment Strategy includes plans to consult on a Major Road Network (MRN) of important locally managed A-roads. The A414 and A405 North Orbital Road through Hertfordshire should be included in the MRN, and these form an outer parallel route to the M25 north of London. The roads play an important role in providing resilience to the M25 when there are incidents, and sections of them already accommodate longer distance strategic traffic flows seeking alternatives to the Highways England network. We are currently developing a strategy for the A414 in the county including the A405, which will further develop plans for investment and improvement to it. We would welcome your support when our plans are agreed, given the potential benefits to the M25's operation.

Rail capacity (p140)

Rail is the dominant mode share for trips into central London from Hertfordshire, with the most significant origins being St Albans, Watford, Cheshunt, Harpenden, Welwyn Garden City, Hemel Hempstead, Borehamwood and Stevenage. We would like the MTS to include more support for investment and improvements to commuter stations, and a commitment to work closely with partners to improve station connectivity, accessibility and capacity overall.

HCC recognises the importance of rail travel and that overcrowding is a major problem meaning there is no appealing alternative to car use for many. Given this, we support in principle Policy 14 of TfL working with Network Rail and train operating companies to increase capacity by at least 80 per cent by 2041 to tackle over-crowding. However, HCC would wish to ensure that this is not to the detriment of Hertfordshire commuters wishing to directly access central London. HCC also supports improving information which informs the public of the best modes, routes and times to avoid the most crowded parts of the network such as by walking.

Mini-Radial Rail Hubs and Networks (p160)

HCC supports the development and integration of outer London rail services from Hertfordshire and multi-modal interchange hubs to create 'mini-radial' public transport links to town centres. This will benefit London and also Hertfordshire towns on the West Coast Main Line, Midland Main Line, East Coast Mainline and West Anglia Main Line by providing improved 'orbital' public transport connectivity. It will potentially connect centres and communities to each other and reduce car dependency, making it easier to switch between rail, bus, walking and cycling at the strategic and 'other' interchanges.

Rail freight Proposals (p163)

HCC supports the Mayor's intention to reduce freight traffic in London to free up capacity for additional passenger services (Proposal 64). This would be by improving rail networks outside London, in particular, using the existing unfilled rail paths on the Felixstowe to Nuneaton corridor and upgrading and electrifying this line. This could benefit the West Coast and East Coast Mainlines in Hertfordshire.

Ultra-Low Emission Zone (p89)

In December 2016 HCC responded to the Mayor of London's new proposals to improve air quality by introducing a new Emissions Surcharge and for improving the Ultra-Low Emissions Zone in London. HCC continues to support the action to improve air quality in London. The proposals could have benefits to Hertfordshire with cleaner vehicles travelling through the county to get to London however, we would like to see more detail and any impact assessments before we can fully support the proposals on the ULEZ as there is a risk Hertfordshire could experience an older and dirtier fleet mix of vehicles diverting or avoiding the extended ULEZ. There are also concerns over the impact to contracted school bus services and community transport vehicles where these services may face additional costs if they cross the border into London, for example taking children from Hertfordshire over the border to school.

Air Quality (p86)

HCC supports Proposal 27 aiming for the whole TfL bus fleet to emit zero exhaust emissions by 2037 with the phasing in of more efficient vehicles starting from 2018. Given a number of TfL buses operate in Hertfordshire, we strongly support the efforts to tackle air quality problems.

Public Transport Link to Airports (p246)

HCC strongly supports improved public transport links to airports, notably rail, which as mentioned in the MTS, have a "key role to play in making the best use of existing capacity while supporting a shift to more sustainable ways of travelling". In particular we support:

- New, longer trains for Gatwick and Luton airports as part of the Thameslink Programme and Brighton Main Line upgrade.
- Upgrading the West Anglia Main Line serving Stansted airport, including four-tracking, to be followed by increasing frequencies associated with Crossrail 2.
- Enabling new routes and frequencies to Heathrow airport, with the delivery of the Elizabeth line new automated people-mover to better connect Luton airport with the rail network.

HCC also supports extending the Milton Keynes to East Croydon service to Gatwick Airport.

The MTS highlights the role of coach services in providing surface access, and the need of airport operators to provide a fair share of funding for this. We believe there is an opportunity here for the potential of coachways and rail/coach park and rides to provide access to London and its airports

(particularly Heathrow given its expansion proposals) as a means to relieve demand on the M25 and support the Mayors aspiration avoid M25 improvements increasing car dependency.

Improving public transport accessibility

The county council supports the implementation of step-free access at Underground stations (Proposal 52), and would like to see those stations in Hertfordshire included early on in the programme.

Conclusion

In conclusion, Hertfordshire County Council supports much of the content of the London transport strategy in particular, the focus on healthier streets, improving public transport and opportunities to reduce car use/modal shift. Many of these themes are common to the new Local Transport Plan we are developing which we will be consulting on later in 2017.

I hope this letter underlines the support HCC have for Mayor's Transport Strategy and highlights areas we believe could be strengthened, in particular in regards to more collaborative working and the inclusions mentioned for Hertfordshire which we believe necessary to facilitate the growth expected in and outside of London. We hope that the points raised in this letter will be taken into consideration when producing the final MTS and please do not hesitate to contact us should you require further detail and clarity on the points above.

Yours Sincerely
Hertfordshire County Council

HERTFORDSHIRE COUNTY COUNCIL

**ENVIRONMENT, PLANNING & TRANSPORT
CABINET PANEL
THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM**

Agenda Item

No

7

SITES TO BE IDENTIFIED IN THE DRAFT MINERALS LOCAL PLAN

Report of the Chief Executive and Director of Environment

Author: Julie Greaves, Minerals and Waste Policy Manager,
(Tel: 01992 556227)

Executive Member: Derrick Ashley

1. Purpose of report

- 1.1. To outline the process undertaken for the site selection work and seek Cabinet approval for the potential site options for inclusion in the draft Minerals Local Plan.

2. Summary

- 2.1. The Minerals Planning Authority (MPA) has a statutory responsibility to prepare a Minerals Local Plan (MLP) in line with national policy and regulations. National policy requires the MPA to identify/allocate sites for future mineral extraction to ensure there is a steady and adequate supply of minerals for Hertfordshire.
- 2.2. In order to achieve this requirement, the County Council produced and consulted on a site selection methodology to assess and identify sites for inclusion in the plan.

3. Recommendation

- 3.1. That the Panel considers the site options presented and the recommended Option 4 as set out in Section 13. The Panel is also asked to recommend that Cabinet approves these sites for inclusion in the Draft Minerals Local Plan.

4. Background: The Site Selection Methodology

- 4.1. The site selection methodology was developed with independent consultants (Land Use Consultants (LUC)) and subject to public consultation. The methodology was presented to the Environment, Planning and Transport Planning in February 2016.

- 4.2. The purpose of the methodology was to assess the sites and/or areas identified for their economic viability. Each site/area was assessed against a set of local planning and environment constraints.
- 4.3. The site selection methodology and subsequent sites identified have also been subject to Sustainability Appraisal (SA) (including Strategic Environmental Assessment – SEA).
- 4.4. The site selection methodology for sand and gravel consisted of three stages which are referred to as ‘sieves.’ It is important to note at this stage that the detailed site assessments undertaken for the MLP are not replacements for the assessments required as part of a planning application for a minerals site. The sieves were:

Sieve 1 – Major Constraints

- Urban areas
- Sites with extant planning permission for other development (for the identification of preferred areas or areas of search , these will be limited to those sites whose area is greater than 5ha due to difficulties associated with collection of data for smaller planning permissions such as house extensions etc.).
- Previously worked sites

- 4.5. Areas identified within the sieve 1 criteria outlined above were removed from the process either in part or in full.

Sieve 2 – Resource and Economic Viability

- 4.6. This sieve verified evidence relating to commercial viability and deliverability. Sieve 2 is not an exclusionary sieving stage. For sites put forward during the call for sites process a certain level of information was expected to be provided by the site promoter to demonstrate that their proposed site was economically viable.

Sieve 3 – Detailed Site Assessments

Criteria for:

- Airport Safeguarding Zones
- Ancient Woodland
- Aquifers
- BAP priority species or habitats
- Best and Most Versatile Agricultural Land
- Cumulative effects
- Ecological status of water bodies
- Flood Risk
- Geodiversity
- Green Belt
- Groundwater vulnerability
- Heritage designations

- International and national ecological designations
- Land ownership
- Landscape designations
- Local Nature Reserves and Local Wildlife Sites
- Proximity of allocated residential or built development
- Recreation
- Restoration
- Sensitive land uses
- Sustainable transport
- Sustainable transport and pollution to the environment (dust, air and water)

4.7. Sieve 3 assessed the sites and/or areas against more detailed environmental and planning constraints and issues to identify those most appropriate for inclusion in the emerging MLP. Each criterion was considered in turn to inform a detailed comparative evaluation of the sites.

5. Call for Sites Process

5.1. Once the Site Selection Methodology was established, the next stage in the process was to undertake a call for sites. A call for sites is a request for sites within Hertfordshire that contain mineral resources (primarily sand and gravel) that may be suitable for extraction. This took place between February and April 2016.

5.2. Hertfordshire County Council received 20 submissions during the call for sites process. Out of the 20 sites put forward, 18 were for sand and gravel and two were for brick clay extraction. Maps of each of the sites can be found in **Appendix 1**.

Site ID	Site Name	Mineral to Extract
MLPCS001	Land at Cromer Hyde Farm	Sand and Gravel
MLPCS002	Land at Salisbury Hall	Sand and Gravel
MLPCS003	Land at Ware Park	Sand and Gravel
MLPCS004	Land at Pynesfield	Sand and Gravel
MLPCS005	Land at Nashe's and Fairfold's Farm	Sand and Gravel
MLPCS006	Hatfield Aerodrome	Sand and Gravel
MLPCS007	Barwick	Sand and Gravel
MLPCS008	Hatfield – Furze Field	Sand and Gravel
MLPCS009	Hatfield Quarry – Land Adjoining Coopers Green Lane	Sand and Gravel

MLPCS010	The Briggens Estate	Sand and Gravel
MLPCS011	Water Hall Quarry – Farm Fields Area	Sand and Gravel
MLPCS012	Water Hall Quarry – Broad Green Area	Sand and Gravel
MLPCS013	Harry’s Field	Brick Clay
MLPCS014	Water Hall Quarry – Bunkers Hill South Areas	Sand and Gravel
MLPCS015	Plashes Farm	Sand and Gravel
MLPCS016	Water Hall Quarry – Howe Green Area	Sand and Gravel
MLPCS017	Robins Nest Hill	Sand and Gravel
MLPCS018	Southfield Wood East	Sand and Gravel
MLPCS019	Pipers End	Sand and Gravel
MLPCS020	Roundhill Wood	Brick Clay

- 5.3. In addition to the sites put forward the three existing Preferred Areas within the adopted Minerals Local Plan were taken forward for assessment. Maps of each of the Preferred Areas can be found in **Appendix 2**.

Site ID	Site Name	Mineral to Extract
1	Land close to the existing Hatfield Quarry (remaining northern Land at BAe)	Sand and Gravel
2	Land to the north of the existing Rickneys Quarry	Sand and Gravel
3	Land to the south-east of the existing Tyttenhanger Quarry	Sand and Gravel

6. Site Assessment: Land Use Consultants (LUC) Report (Appendix 3)

- 6.1. The consultants have provided an independent assessment of the sites put forward by industry and the Preferred Areas. Each site/area has been assessed against the set of 22 criteria within the site selection methodology.
- 6.2. Each criterion was given a score based on a traffic light ranking system of impact ranging from Positive (Dark Green), Low (Green), Medium (Amber), High (Red) and Very High (Dark Red). In addition Highways and Landscape and Visual Impact Assessment scores were also recorded. The sites/areas have also been subject to the Sustainability Appraisal (incorporating Strategic Environmental Assessment).

- 6.3. The final report (March 2017) ranks the sites and preferred areas in terms of the potential impacts on the site and surrounding environment. The report summarises the most appropriate site options for allocation in the Minerals Local Plan based on the number of 'red' assessment scores.
- 6.4. The sand and gravel site options and existing preferred areas that score between two and four 'red' scores (i.e. least number of reds) are:
- MLPCS004 Pynesfield
 - MLPCS012 Broad Green
 - MLPCS017 Robins Nest Hill
 - MLPCS008 Hatfield – Furze Field
 - MLPCS006 Hatfield Aerodrome
 - MLPCS009 Land Adjoining Coopers Green Lane
 - MLPCS018 Southfield Wood
- 6.5. These are likely to have the greatest potential to mitigate the adverse impacts associated with their excavation and operation and are therefore considered to be the most appropriate site options for allocation in the Minerals Local Plan based on the report conclusions. As Preferred Areas 1 and 2 also score between one and four 'red' scores, these areas could also be considered as continuing preferred areas.
- 6.6. Preferred Area 3 comprises land to the south-east of the existing Tyttenhanger Quarry, almost all of which has now been worked and therefore will not be considered as a preferred area in the emerging Minerals Local Plan.
- 6.7. From this list of sites, there is some uncertainty regarding the suitability of the site options MLPCS017 Robins Nest Hill and MLPCS018 Southfield Wood. These sites score 'red' in the Sieve 2 assessment due to a lack of information to conclusively determine their economic viability and deliverability. This uncertainty would need to be resolved before either of these sites could be re-assessed for allocation within the Minerals Local Plan.

7. Consultation

- 7.1. The information used to assess sites and areas against the criteria was provided from a range of sources. In addition, informal consultation was undertaken with internal officers and external statutory bodies (Environment Agency, Historic England, and Natural England) on the sites.
- 7.2. Specific comments were received from Historic England in regards to sites/areas and impacts upon listed buildings, conservation areas, scheduled monuments, historic parks and gardens etc. or their settings, based upon a brief desk based assessment. These topics were covered by the Sieve 3 criterion.

- 7.3. Comments were also received from Natural England in regards to the conservation, enhancement of the natural environment in terms of landscape, biodiversity, ancient woodland, geological conservation, best and most versatile land and public rights of way and access. These topics were also covered by the Sieve 3 criterion.
- 7.4. Comments on the sites have been received from the Environment Agency which outlined that:
- Land at Ware Park, Land at Pynesfield, Barwick and Water Hall, Howe Green fall within Source Protection Zone 1.
 - Water Hall, Farm Fields is heavily constrained by the River Lee and its associated flood plains.
 - There are ten proposed sites which fall within the bromate plume (namely Hatfield Aerodrome, Hatfield Furze Field, Land adjoining Coopers Green Lane, Water Hall, Broad Green, Water Hall, Bunkers Hill south, Robins Nest Hill and Pipers End) which will need to be assessed and demonstrate that the bromate plume will not be spread either vertically or laterally as a result of mineral extraction.
 - Land at Cromer Hyde Farm, Nashe's and Fairfold's Farm, Briggens Estate, Harrys Field, Plashes Farm and Roundhill Wood fall within Source protection zones 2 and 3 and as such, groundwater would have to be protected.
 - Southfield Wood East and Salisbury Hall are adjacent to historic landfills and therefore it would need to ensure that there was not an increased risk to controlled waters from mobilised contamination.
- 7.5. Water quality has been reviewed as part of the Sieve 3 criteria in the Site Selection Study for aquifers, ecological status of water bodies and groundwater vulnerability. All sites scored medium in regards to aquifers. Eight sites scored high in regards to Ecological status of water bodies, these were: Hatfield Aerodrome, Land Adjoining Coopers Green Lane, Salisbury Hall, Farm Fields, Pipers End, Briggens Estate, Howe Green and Barwick.
- 7.6. Barwick, Land at Ware Park and Pynesfield scored High for Groundwater Vulnerability.

8. **Site Options Summary Explanation** **Identification of Specific Sites, Preferred Areas and/or Areas of Search**

- 8.1. Following the application of the site selection methodology, consideration was given as to whether sites should be identified as a Specific Site, a Preferred Area and/or an Area of Search as appropriate. This depended on the level of information and known degree of deliverability of the areas/sites in question.
- 8.2. National Policy sets out the definitions for each:

Specific Sites – are designated where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;

Preferred Areas – are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or

Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply.

Plan Requirement and Permitted Reserves

- 8.3. The Draft Minerals Local Plan is to be a 15 year plan period running from 2016-2031.
- 8.4. National policy requires the MPA to identify/allocate sites/areas for future mineral extraction to ensure there is a steady and adequate supply ensuring an adequate landbank¹ of at least seven years can be maintained throughout the 15 year plan period (for sand and gravel this would be 15 years plus seven years at the end of the plan period, totalling 22 years).
- 8.5. In order to calculate this requirement, Hertfordshire is continuing to plan in line with the ‘revised sub-regional apportionment’ figure for the East of England Aggregate Working Party (AWP).
- 8.6. The apportionment figure for Hertfordshire is 1.39 million tonnes per annum. As such, the total plan requirement is 30.58² million tonnes.
- 8.7. Permitted reserves are mineral deposits which have planning permission for extraction and therefore make up the landbank. The current permitted reserves are set out in the Local Aggregates Assessment, available on the county council website.
- 8.8. Taking this into account, the following table provides a summary of the plan requirement:

Total Plan Requirement (15year plus 7 years) based on East of England Apportionment Figure:	30,580,000 tonnes
Permitted Reserves (as at 31/12/2015)	13,215,716 tonnes
Permitted Reserves (including Pynesfield)	13,565,716 tonnes
Plan requirement shortfall minus permitted reserves	17,364,284 tonnes
Plan requirement minus permitted reserves (including Pynesfield)	17,014,284 tonnes

- 8.9. The County Council is seeking to address the identified shortfall by allocating sufficient sites/areas in the Minerals Local Plan and as such a series of site

¹ A stock of planning permissions for the winning and working of minerals (Paragraph 145, NPPF).

² 22 years (15 year plan period plus 7 years) x 1.39mt = 30.58mt

option combinations have been assembled for further assessment to establish which combination is most appropriate to meet the plan requirement.

- 8.10. The options have been developed using the conclusions from the Site Selection Report, as a basis, together with a review of their deliverability and potential tonnage yield from each site. The options and the process undertaken to compile them are set out below.

Site Options

Option 1: based solely on LUC recommendations from the Site Selection Report (March 2017)

Option 1
004 Pynesfield
012 Broad Green
017 Robins Nest Hill
008 Furze Field
PA1 Land at BAe/Land Close to the existing Hatfield Quarry
006 Hatfield Aerodrome
009 Land Adjoining Coopers Green Lane
018 Southfield Wood
PA2 Land at Rickneys
Option 1 Total Tonnage: 21,750,000 tonnes

- 8.11. An assumption was made that sites MLP017 and 018 are economically viable for inclusion in this option. Economic viability issues would need to be confirmed if these sites were to be identified in the Draft Plan.
- 8.12. Pynesfield was granted permission on appeal 18 January 2017 and therefore in further options has been included as Permitted Reserves.
- 8.13. There is an outstanding query on the potential quantity of mineral for MLPCS009. A revised figure has not been clarified and therefore remains at 6.6mt.
- 8.14. Estimated figures have been included for the remainder of the Preferred Areas in the adopted Minerals Local Plan (Land at BAe/Land close to existing Hatfield Quarry (remaining northern section) and Land at Rickneys (existing northern part of preferred area 2)).

Option 2: Summary from Option 1 to Option 2: Removed sites 004, 017 and 018

Option 2

012 Broad Green
008 Furze Field
PA1 Land at BAe/Land Close to the existing Hatfield Quarry
006 Hatfield Aerodrome
009 Land Adjoining Coopers Green Lane
PA2 Land at Rickneys

Option 2 Total Tonnage: 19,900,000 tonnes

- 8.15. Pynesfield was granted permission on appeal 18 January 2017 and therefore is included as Permitted Reserves. It therefore does not feature as a site option.
- 8.16. Sites MLP017 (Robins Nest Hill) and 018 (Southfield Wood) have been removed in this and further options due to issues with economic viability and landownership constraints, scoring 'red' in Sieve 2.
- 8.17. This and further options do not include sites which have scored 'red' at Sieve 2 due to the lack of information to conclusively determine their economic viability and deliverability.
- 8.18. This option includes the remaining parts of Preferred Areas 1 and 2 of the adopted MLP as land which has not been subject to planning applications or put forward by industry in the call for sites.
- 8.19. There is an outstanding query on the quantity of minerals for MLPCS009, however a revised figure has not been clarified, and therefore the figure remains at 6.6mt.

Option 3: Summary from Option 2 to Option 3: Removed site 012, Preferred Area 1 (northern), added in Land at Ware Park, 003

Option 3

008 Furze Field
006 Hatfield Aerodrome
009 Land Adjoining Coopers Green Lane
PA2 Land at Rickneys
003 Land at Ware Park

Option 3 Total Tonnage: 21,050,000 tonnes

- 8.20. Pynesfield was granted permission on appeal 18 January 2017 and therefore included as Permitted Reserves. It therefore does not feature as a site option.
- 8.21. MLP012 Broad Green has been removed from this option due uncertainty with a current enforcement case on Bunkers Hill Quarry and therefore uncertainty with deliverability for this site. Bunkers Hill is due to be restored by December 2017. This may restrict the use of an internal haul road leading to the processing plant which was suggested by the site promoter as the method for transporting minerals for processing. In addition, the existing plant is due to be removed by December 2019. A previous planning application on this site was refused by the county council and subject to appeal. The appeal was dismissed on grounds which include cumulative impact, noise and impacts of dust on sensitive land uses.
- 8.22. There is an outstanding query on the quantity of minerals for MLPCS009, however a revised figure has not been clarified, and therefore the figure remains at 6.6mt.
- 8.23. The remaining part (northern) adopted Preferred Area 1 Land at BAe (Land close to the existing Hatfield Quarry) has been removed from this option due to uncertainty on deliverability due to the bromate plume. This uncertainty has been confirmed by correspondence with the Environment Agency. In addition the borehole data shows a considerable level of overburden. Both of these were taken into consideration by the operator (Brett Aggregates) on promotion of the application at Hatfield Aerodrome, which was recently approved by the County Council.
- 8.24. This option does not include sites which have scored 'red' at Sieve 2 due to the lack of information to conclusively determine their economic viability and deliverability.
- 8.25. In the LUC ranking list, Salisbury Hall features as the next site to score 'Green' at Sieve 2 in the ranking. However highways comments for this site state that 'significant concerns have been identified for this site which are likely to attract highway objections', therefore this site has not been included in the option. As a result, Land at Ware Park is the next site in the ranking table (excluding sites which score 'Red' in Sieve 2) and has been included in this option.

Option 4: Summary from Option 3 to Option 4: Removed Preferred Area 2 (northern) and 003, added 010, Briggens Estate as a preferred area

Option 4
008 Furze Field
006 Hatfield Aerodrome
009 Land Adjoining Coopers Green Lane
010 (Preferred Area) Briggens Estate

Option 4 Total Tonnage: 25,750,000 tonnes

- 8.26. This option is based on Option 3; however, MLP003 Land at Ware Park has been removed due to the recent planning application being refused for a number of reasons including impact on the Green Belt (plant, machinery and stock piles), impact on landscape and highways concerns.
- 8.27. The remaining part of the Preferred Area 2 Rickneys has also been removed from this option to provide an alternative scenario from the preferred areas in the adopted Minerals Local Plan. Under the adopted Minerals Local Plan, it states that the working of the site would be considered as an extension to existing Rickneys Quarry. Circumstances have changed over time and the existing site at Rickneys Quarry has been mothballed with no plant and machinery remaining on site. This area was not put forward by the landowner(s) or industry in the most recent call for sites and therefore this may question its deliverability.
- 8.28. This option does not include sites which have scored 'red' at Sieve 2 due to the lack of information to conclusively determine their economic viability and deliverability.
- 8.29. The Briggens Estate is included in this option as a new Preferred Area to make up the plan provision shortfall from specific sites. This area would be identified as a preferred area rather than a specific site in line with the definition in the NPPG and based upon some high scorings for Sieve 3 and current highways assessment. It could be considered that as this is a large area, opportunities exist for smaller areas to come forward which may overcome some of these issues raised.
- 8.30. There is an outstanding query on the quantity of minerals for MLPCS009, however a revised figure has not been clarified, and therefore the figure remains at 6.6mt.

Reasoning for the remaining sites excluded from these options

- 8.31. Not all sites promoted were considered appropriate for inclusion in the site options. A summary of the reasoning for this is set out below:

<p>MLPCS001 Land at Cromer Hyde Farm</p>	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>It is considered that development of the site could have a very high impact on heritage designations as the site is partly located within Brocket Hall Registered Park and Garden.</p> <p>In addition, the site could have a high impact on ancient</p>
--	---

	<p>woodland as the site is adjacent to two areas of ancient woodland; recreation as the site contains a Public Right of Way (PRoW) and is adjacent to a number of additional PRoWs and the Brocket Park Golf Course; sensitive land uses as the site is immediately adjacent to a number of residential properties; and sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway.</p> <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction.</p> <p>The site is considered to raise significant concerns which are likely to attract highway objections.</p>
MLPCS002 Land at Salisbury Hall	<p>It is considered that this site could have a high impact on the ecological status of water bodies as the site contains a water body; recreation as the site contains a PRoW and is immediately adjacent to a number of additional PRoWs and the Watford Football Club Training Ground; sensitive land uses as a number of residential properties are located adjacent to the site; and sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway.</p> <p>Hertfordshire County Council Highways has raised significant concerns which are likely to attract a highway objection which is the main reason this site has not been taken forward in the site options.</p>
MLPCS005 Nashe's and Fairfold's Farm	<p>This site was withdrawn and therefore has not been recommended as a potential site for inclusion in the plan.</p> <p>This site has scored 'red' at Sieve 2.</p> <p>It is considered that this site could have a high impact on the ancient woodland as the site is adjacent to one area of ancient woodland; recreation as the site contains a PRoW and is adjacent to a number of additional PRoWs; sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not within close proximity to the strategic road network.</p> <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction.</p> <p>The site is considered to raise significant concerns which are likely to attract highway objections.</p>
MLPCS007 Barwick	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information</p>

	<p>to conclusively determine economic viability and deliverability.</p> <p>It is considered that this site could have a high impact on ancient woodland as the site is adjacent to an area of ancient woodland; the ecological status of water bodies as the site contains a watercourse; groundwater as part of the site is within Source Protection Zone 1; recreation as the site contains a PRow and is adjacent to a number of additional PRows; sensitive land uses as the site is adjacent to a number of residential properties; and sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway.</p> <p>The site was also considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction.</p> <p>The site has not been assessed by the County Council's Highways as no information has been provided on the proposed access points or HGV routing.</p>
MLPCS011 Water Hall Quarry - Farm Fields Area	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>It is considered that this site could have a high impact on the ecological status of water bodies as the site contains one watercourse and is adjacent to another watercourse; recreation as the site is adjacent to a PRow and within close proximity of three additional PRow; sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not located within close proximity of the strategic road network.</p>
MLPCS014 Water Hall Quarry – Bunkers Hill South Area	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>It is considered that this site could have a high impact on ancient woodland as the site is adjacent to one area of ancient woodland; recreation as the site is adjacent to one PRow; sensitive land uses as the site is adjacent to a number of residential properties; sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network.</p>
MLPCS015 Plashes Farm	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>In addition this site scored 'very high' for two criteria ancient</p>

	<p>woodland, as the site contains three areas and is adjacent to three additional areas of ancient woodland; and for international and national ecological designations as the site is adjacent to Plashes Wood SSSI (Site of Special Scientific Interest) in Sieve 3.</p> <p>The site is also considered likely to have a ‘high’ impact on recreation as the site contains three PRoW; sensitive land uses as the site is adjacent to Plashes Farm; sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network.</p> <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction.</p>
MLPCS016 Water Hall Quarry - Howe Green Area	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>It is considered that this site could have a high impact on the ecological status of water bodies as the site contains one watercourse which also runs down its eastern boundary; recreation as the site contains two PRoW and is within close proximity of an additional PRoW; sensitive land uses as the site is adjacent to residential properties; sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not located within close proximity of the strategic road network.</p> <p>The site has not been assessed by the County Council's Highways as no details of access arrangements have been provided.</p>
MLPCS019 Pipers End	<p>This site has scored 'red' at Sieve 2 and therefore has not been included in the site options due to the lack of information to conclusively determine economic viability and deliverability.</p> <p>It is considered that this site could have a high impact on the ecological status of water bodies as the site contains two watercourses and is adjacent to two additional watercourses; sensitive land uses as the site is adjacent to a number of residential properties; sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network.</p>

	The site is considered to have an overall moderate landscape and visual sensitivity to mineral extraction.
--	--

8.32. The County Council wishes to ensure full public consultation also takes place on all sites promoted to the County Council. Therefore all sites and areas forming the assessment work, but not included in the recommended option, will be subject to specific public consultation in the form of an 'Omissions Consultation' to ensure sites/areas are given fair assessment. An omission site is a parcel of land that has been assessed and subsequently rejected.

9. Sustainability Appraisal

9.1. A Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA) is a requirement under the SEA Directive. The purpose of Sustainability Appraisal is to promote sustainable development by integrating sustainability considerations into the preparation and adoption of plans.

9.2. A SA Framework for assessing the potential sustainability effects of the MLP has been developed through formal consultation.

9.3. The SA Framework has also been used to assess the four site option combinations. The assessment concludes that all four options have some significant negative effects. The scoring of each individual SA objective does not differ across the four site option combinations.

9.4. In preparing the new MLP, the county council is also required by law to carry out a **Habitats Regulations Assessment** (HRA) to comply with the Habitats Regulations. The HRA refers to the assessment of the potential effects of a development plan on one or more European sites³.

9.5. The report concluded that none of the policies or potential site allocations in the Minerals Local Plan are considered likely to have a significant effect on the European sites within 10km of Hertfordshire.

9.6. However, the screening concluded that there are uncertain significant effects which have been identified in relation to potential air pollution. All of the site option combinations, along with the policies that permit development outside of the allocated sites and preferred areas have the potential for air pollution effects, in combination with each other.

9.7. The Site Selection Study also included a criterion for sustainable transport and pollution to the environment (dust, air, water). Site scored high 'red' where sites or areas were located within an Air Quality Management Area, or were not in close proximity to a strategic road network. This included 003 Land at Ware Park, 005 Nashe and Fairfolds (Withdrawn), 008 Hatfield Furze Field, 011 Water Hall Quarry – Farm Fields, 012 Water Hall Quarry – Broad Green,

³ This includes Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). In addition to potential SPAs (pSPAs), candidate SACs (cSACs), Sites of Community Importance (SCIs) and Ramsar sites.

014 Water Hall Bunkers Hill, 015 Plashes Farm, 016 Water Hall Howe Green, 017 Robins Nest Hill and 019 Pipers End.

10. Highways Impact Study

- 10.1. Highways comments were provided by the County Council's Highways team in regards to each individual site, these comments helped to inform the assessment undertaken by Land Use Consultants.
- 10.2. Further highways analysis is being undertaken on each of the four site option combinations to assess the highways implications and combined effects of the site combinations.

11. Health Impact Assessment

- 11.1. A Health Impact Assessment (HIA) is also being prepared as an evidence base document to support the Draft Minerals Local Plan.
- 11.2. The HIA will be a high level assessment starting with a baseline position to screen and scope the policies contained within the Draft Plan. The HIA will focus on policies; the HIA will not screen individual specific sites at this stage, as it will be dependent on detailed site information. It is therefore recommended that further screening of specific sites should be carried out during the planning application process.
- 11.3. The HIA will use the comprehensive health profile for Hertfordshire (2016) to provide the baseline position. The HIA will assess the proposed policies using the Health Priorities as set out in the Health and Wellbeing Strategy (2016-2020). The health implications will also be assessed using:
 - The Equality Impact Assessment (EqIA) for determining any impacts on protected characteristics
 - Sustainability Appraisal (SA) Objectives 9.1 Health, Well-being and Amenity of Residents, 9.2 Recreation (loss) and 9.3 Recreation (provision)
 - Site Selection Criteria for proximity of allocated residential or built development, Sensitive land uses, Sustainable transport and pollution to the environment (dust, air, water).

12. Analysis of Options

- 12.1. The estimated tonnages for each of the four options would make sufficient contribution to meet the required tonnage for the MLP.
- 12.2. Paragraph 145 of the NPPF states that *'Minerals planning authorities should plan for a steady and adequate supply of aggregates by ensuring that large landbanks bound up in very few sites do not stifle competition'*.
- 12.3. In order to prevent a large landbank in a single site and potentially stifle competition, it is important to identify a spread of sites/areas.

12.4. The following four site options look at a number of different scenarios. All options are finely balanced.

Option 1	Option 2
<ul style="list-style-type: none"> • Pynesfield • Broad Green • Robins Nest Hill • Land at BAe (Preferred Area) • Hatfield Aerodrome • Land Adjoining Coopers Green Lane • Southfield Wood • Land at Rickneys (Preferred Area) 	<ul style="list-style-type: none"> • Broad Green • Furze Field • Land at BAe (Preferred Area) • Hatfield Aerodrome • Land Adjoining Coopers Green Lane • Land at Rickneys (Preferred Area)
Option 3	Option 4
<ul style="list-style-type: none"> • Furze Field • Hatfield Aerodrome • Land Adjoining Coopers Green Lane • Land at Rickneys (Preferred Area) • Land at Ware Park 	<ul style="list-style-type: none"> • Furze Field • Hatfield Aerodrome • Land Adjoining Coopers Green Lane • Briggens Estate (Preferred Area)

12.5. **Option 1** is made up of seven sites and two existing preferred areas. This is the conclusion of the consultant's assessment of the sites and areas put forward. The total tonnage of this option is 21,750,000 tonnes. The deliverability of option 1 is reduced due to the uncertainty in:

- Economic viability
- Land ownership constraints

12.6. **Option 2** comprises four sites and two existing preferred areas. This option is based upon option 1 with the sites identified as undeliverable removed. The total tonnage of this option is 19,900,000 tonnes. The deliverability of some of the sites in Option 2 is also uncertain due to:

- Lack of promotion by interested parties for the preferred areas, and
- Environmental constraints previously identified through planning history

12.7. **Option 3** comprises four sites and one existing preferred area. The total tonnage is 21,050,000 tonnes. Due to the questions over deliverability in Option 1 and 2, Option 3 incorporates a different site grouping to provide a variation. The deliverability of some of the sites in Option 3 are uncertain due to:

- Lack of promotion by interested parties for the preferred areas, and
- Environmental constraints previously identified through planning history

- 12.8. **Option 4** includes three sites and one new proposed preferred area. The total tonnage is 25,750,000 tonnes. The deliverability of the sites/areas in Option 4 are more certain due to:
- active promotion by industry,
 - positive planning history,
 - no landownership constraints, and
 - no reliance on a single site/area to meet the future requirements
- 12.9. It should be emphasised that all four options have constraints and that the assessment has had to look at what represents the best (or “least worst”) overall mix of factors in terms of the conclusion. All mineral extraction will involve some disturbance and harm to the area in which it takes place.
- 12.10. Sites would be subject to the necessary regulatory procedures for example environmental permits undertaken by other regulatory bodies (such as Environment Agency) which fall outside the remit of the County Council as Minerals and Waste Planning Authority. It is important to note that the detailed site assessments undertaken for the purposes of allocating sites within the Minerals Local Plan do not replace the need for further assessments required as a part of any planning application for a minerals site.

13. Recommended Site Option

- 13.1. Having considered the conclusions of reports and assessments undertaken, on balance the most appropriate option to take forward to the Draft Minerals Local Plan is Option 4. Option 4 comprises Furze Field, Hatfield Aerodrome, Land Adjoining Coopers Green Lane (all three being specific sites) and Briggens Estate (as a preferred area). This option would provide:
- The necessary tonnage to meet the plan requirement
 - Flexibility in regards to timing of sites coming forward
 - The identification of specific sites, preferred areas and/or areas of search (in order of priority) in line with national policy
- 13.2. Option 4 has a higher tonnage than the other options, and provides flexibility to ensure a continuity of supply is met, for example, in the event that an identified site does not come forward or there is an identified need for the mineral that is unlikely to be met in a timely way from the specific sites then the land identified as a preferred area could help to address any shortfall.

14. Brick Clay

- 14.1. Of the two sites put forward for Brick Clay extraction, the consultant’s report concluded that the site known as Harry’s Field, would be the most appropriate site option for allocation in the Minerals Local Plan. However, there is some uncertainty in regards to the deliverability of this site, in addition to further information received that the Brickworks has ceased production. The report also concluded that the site at Roundhill Wood had a number of potential high impacts and therefore would not be suitable for allocation.

14.2. Paragraph 146 of the NPPF introduced a requirement for Mineral Planning Authorities to provide a stock of permitted reserves of at least 25 years for brick clay whilst taking account of the need for provision of brick clay from a number of different sources to enable appropriate blends to be made.

Therefore, to address this requirement the MLP will:

- Identify any permitted reserves,
- Safeguard resources through defined Mineral Safeguarding Areas and
- Identify any future permitted reserves through the annual update of the Local Aggregates Assessment

15. Next Steps

15.1. The timetable for the stages of work are outlined below:

19 July 2017	Member Briefing Workshop - focusing on the process and work undertaken in regards to site selection and why we need to identify a number of sites, apportionment figures etc. No decisions would be taken at the workshop, the purpose would be to inform Members of the technical work undertaken in an informal environment ahead of sites being reported to Members in September
7 September 2017	Environment, Planning and Transport Panel to consider site options for Minerals Local Plan and recommend a preferred option
25 September	Cabinet to confirm the preferred option for the Minerals Local Plan
1 November 2017	Environment, Planning and Transport Panel with the Draft MLP Plan (including policies and sites) for consultation and Omissions Consultation
13 November 2017	Cabinet to agree the Draft MLP Plan (including policies and sites) for consultation and Omissions Consultation
21 November 2017	County Council to agree the Draft MLP Plan (including policies and sites) for consultation and Omissions Consultation
December 2017 – February 2018	Regulation 18 - Draft Minerals Local Plan Consultation and Omissions Consultation

16. Financial Implications

- 16.1. Plan production is the normal business of the Minerals and Waste Policy Team and the cost of plan production can be covered by existing budgets. The estimated costs for the Minerals Local Plan review are set out in the Minerals and Waste Development Scheme (adopted November 2016). The budget for the next three years has been based on previous plan production costs.

17. Equalities Impact Assessment (EqIA)

- 17.1. When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered, the equality implications of the decision that they are making.
- 17.2. Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.
- 17.3. The Equality Act 2010 requires the County Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 17.4. An Equality Impact Assessment (EqIA) has been undertaken for the review of the Minerals Local Plan and an addendum undertaken for each stage of the plan production (Appendix 4). The Minerals Local Plan review EqIA concludes that potential equality impacts may arise during stakeholder events and consultations and proposes a range of reasonable mitigations to minimise the potential impacts.
- 17.5. An addendum to the EqIA will be developed to inform the Draft Plan Consultation which will include sites/areas.

Appendix 1 – Call for Sites Maps

Appendix 2 – Maps of Preferred Areas

Appendix 3 – LUC Site Selection Report – March 2017

Appendix 4 – EqIA's

Background documents referred to and used in writing this report:

The National Planning Policy Framework (2012), DCLG

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

The National Planning Practice Guidance (2014), DCLG

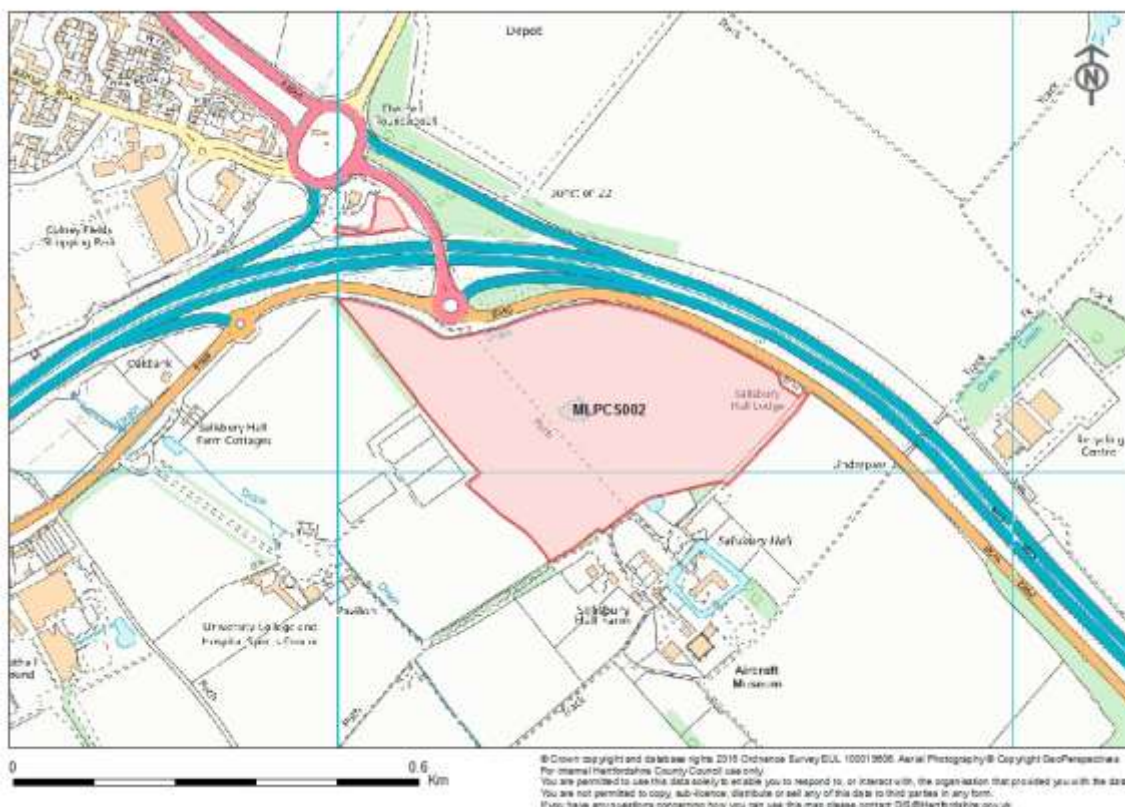
<https://www.gov.uk/government/collections/planning-practice-guidance>

Town and Country Planning (Local Planning) (England) Regulations 2012

http://www.legislation.gov.uk/ukxi/2012/767/pdfs/ukxi_20120767_en.pdf

Site Options Report Appendix 1– Call for Sites Summary

Site Name: Land at Cromer Hyde Farm		Site Number: MLPCS001	
<p>The map displays a large area highlighted in red, labeled MLPCS001. This area is situated between the towns of Lemsford and Fronsnoagh. To the east, the River Great Ouse is visible. The map includes a scale bar from 0 to 1 km and a north arrow. Copyright information at the bottom right reads: © Crown copyright and database right 2016 Ordnance Survey Ltd. 100019506. Aerial Photography © Copyright GeoPentaplex. For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the information that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. If you have any questions concerning how you can use the map please contact: GIS@Hertfordshire.gov.uk</p>			
Site Address:	Marford Road, Lemsford, Hertfordshire, AL8 7XD		
Site Promoter:	Strutt and Parker (Agent) on behalf of The Trustees of the Third Lord Brocket 1987 Settlement		
District:	Welwyn Hatfield		
Material Proposed for Extraction:	Sand and Gravel		

Site Name: Land at Salisbury Hall
Site Number: MLPCS002

Site Address: AL2 1BT (nearest)

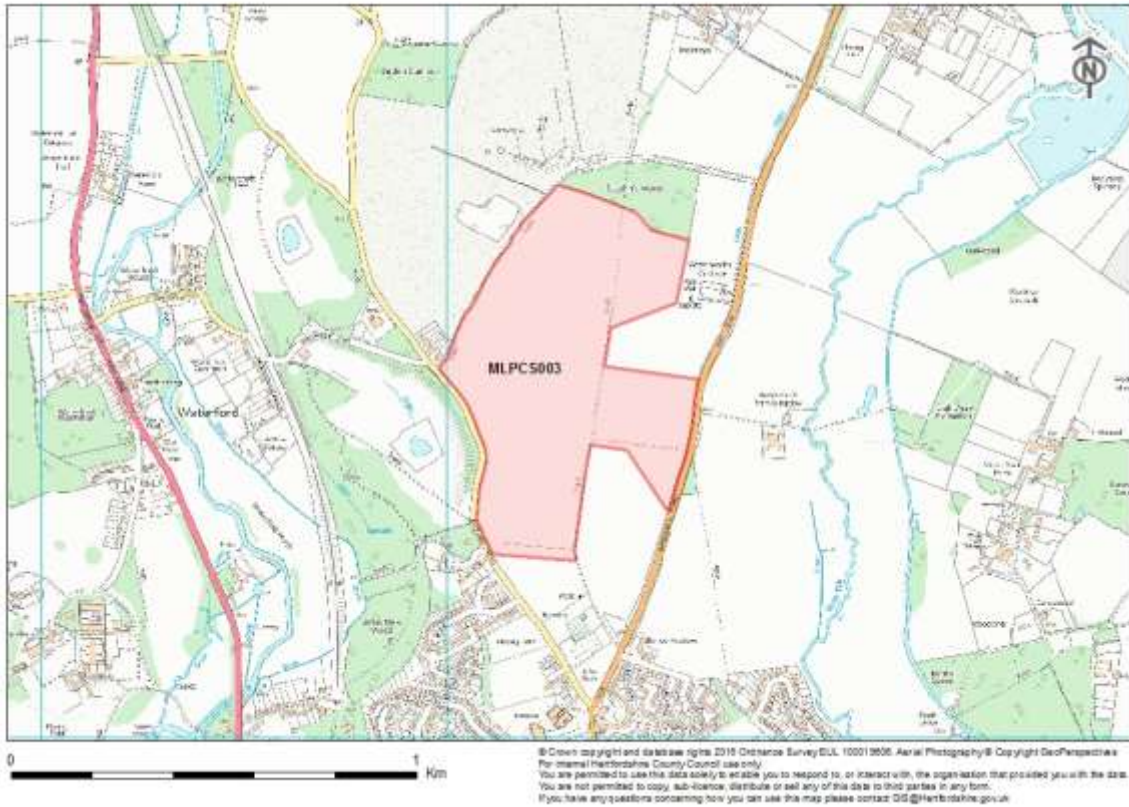
Site Promoter: Tarmac Aggregates

District: Hertsmere

Material Proposed for Extraction: Sand and Gravel

Site Name: Land at Ware Park

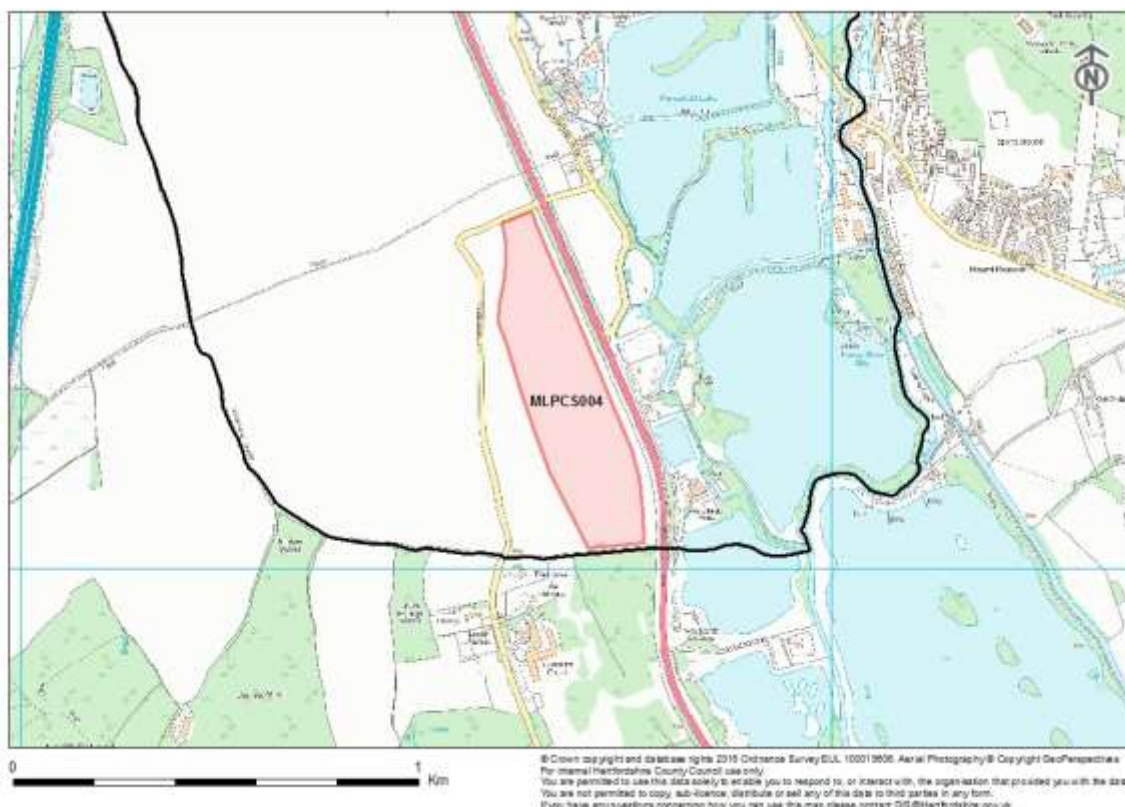
Site Number: MLPCS003



Site Address:	Wadesmill Road, Hertford
Site Promoter:	D.K Symes (Agent) on behalf of Gowling WLG Trust Corporation Limited)
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Site Name: Land at Pynesfield

Site Number: MLPCS004



Site Address: Denham Way, Maple Cross

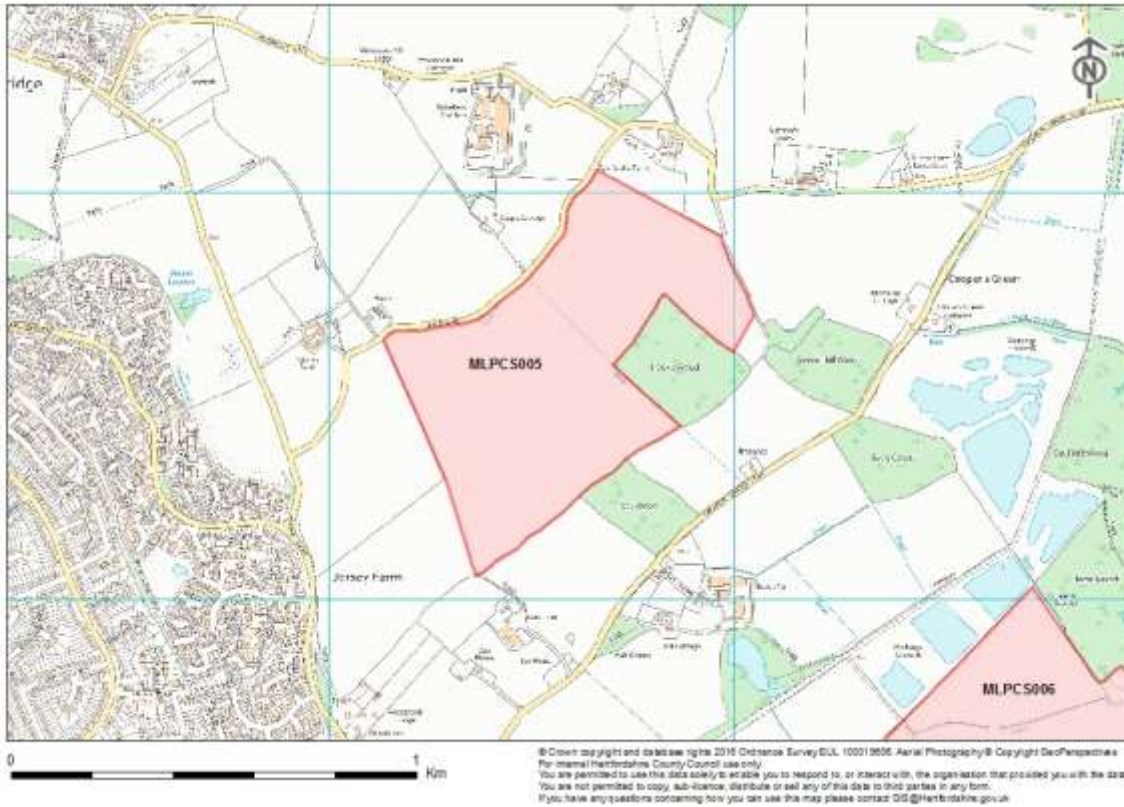
Site Promoter: D.K Symes (Agent) on behalf of Ingrebourne/ Harleyford Ltd.

District: Three Rivers

Material Proposed for Extraction: Sand and Gravel

Site Name: Nashe's and Fairfold's Farm

Site Number: MLPCS005

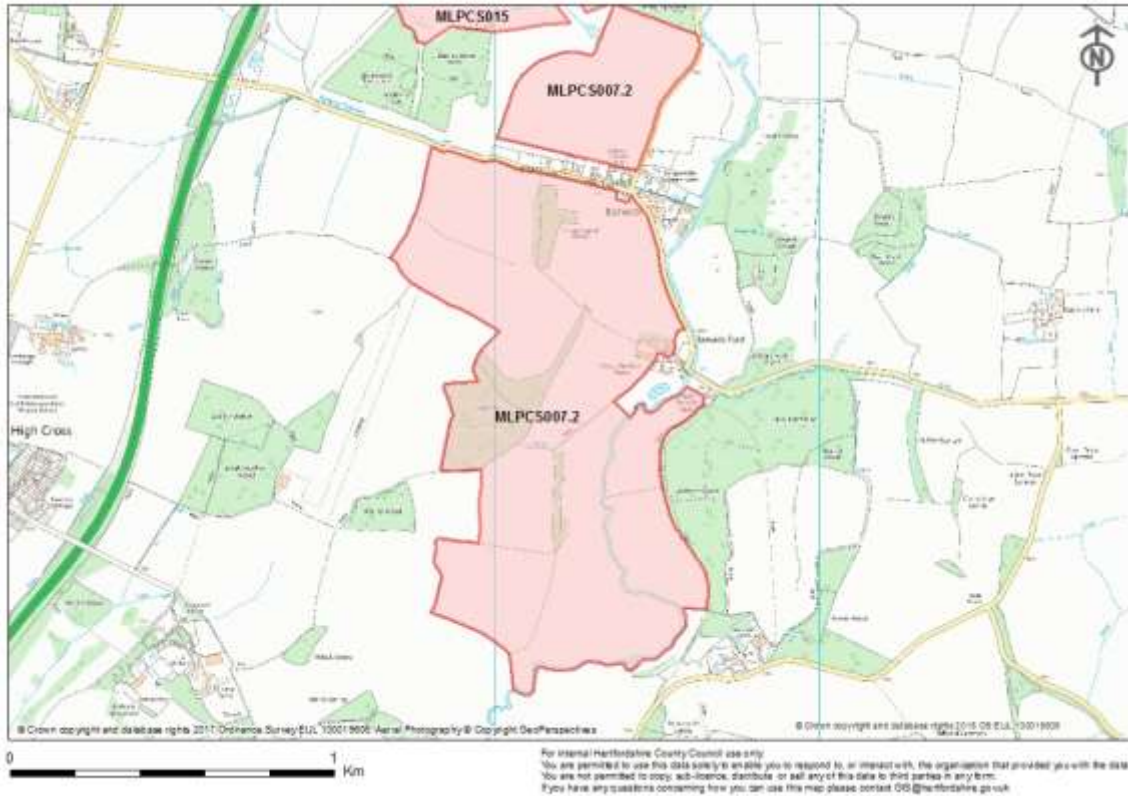


Site Address:	Sandridge, Hertfordshire
Site Promoter:	D.K Symes (Agent) on behalf of Wm. Boyer and Sons Ltd.
District:	St. Albans
Material Proposed for Extraction:	Sand and Gravel

Site Name: Hatfield Aerodrome		Site Number: MLPCS006	
<p>© Crown copyright and database rights 2016 Ordnance Survey GUL 100019856. Aerial Photography © Copyright GeoPerspective. For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of the data in any form. If you have any questions concerning how you can use this map please contact GIS@Hertfordshire.gov.uk</p>			
Site Address:	Land at former Hatfield Aerodrome, Hatfield Road, Hatfield.		
Site Promoter:	SLR Consulting Ltd (Agent) on behalf of Brett Aggregates Ltd.		
District:	St Albans and Welwyn Hatfield		
Material Proposed for Extraction:	Sand and Gravel		

Site Name: Barwick

Site Number: MLPCS007



Site Address:	Land at Barwick, SG11 1DB
----------------------	---------------------------

Site Promoter:	Chalden Estate
-----------------------	----------------

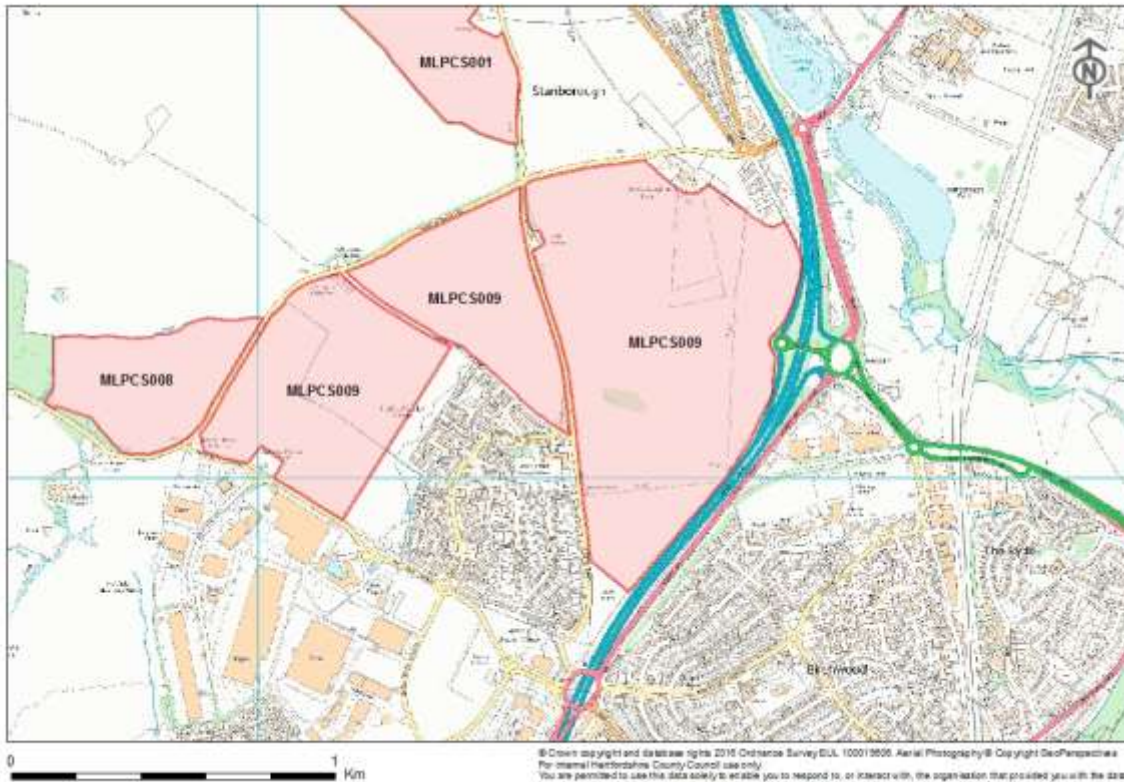
District:	East Herts
------------------	------------

Material Proposed for Extraction:	Sand and Gravel
--	-----------------

Site Name: Hatfield – Furze Field		Site Number: MLPCS008	
<p>© Crown copyright and database right 2016 Ordnance Survey Ltd. 100019808. Aerial Photography © Copyright GeoPerpective For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of the data in third parties in any form. If you have any questions concerning how you can use this map please contact GIS@Hertfordshire.gov.uk</p>			
Site Address:	Oaklands Lane, Smallford, St Albans, AL4 0HS		
Site Promoter:	Cemex UK Operations Ltd.		
District:	Welwyn Hatfield		
Material Proposed for Extraction:	Sand and Gravel		

Site Name: Hatfield Quarry – Land adjoining Coopers Green Lane

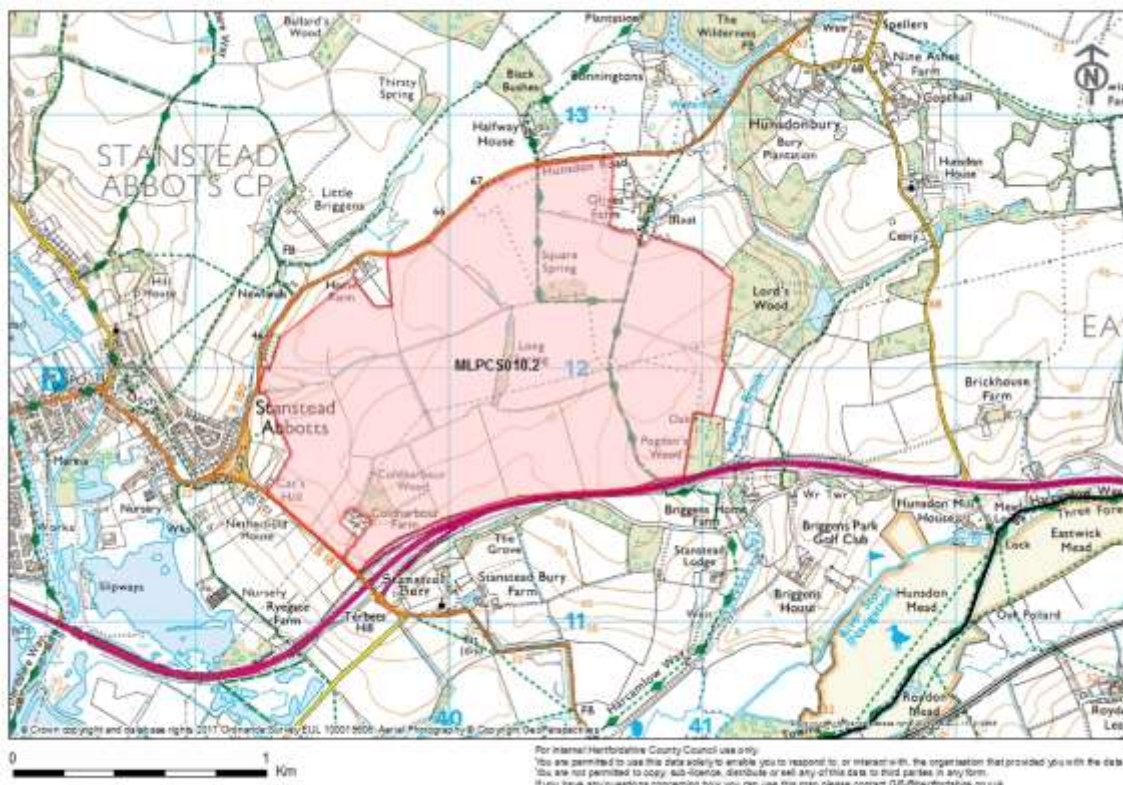
Site Number: MLPCS009



Site Address:	Oaklands Lane, Smallford, St Albans, AL4 0HS
Site Promoter:	Cemex UK Operations Ltd & Gascoyne Holdings Ltd.
District:	Welwyn Hatfield
Material Proposed for Extraction:	Sand and Gravel

Site Name: Briggens Estate

Site Number: MLPCS010



Site Address:

Land to the East of Stanstead Abbots, Hertfordshire

Site Promoter:

Tarmac Aggregates/Savills (UK Ltd) (Operator and Agent) on behalf of Briggens Estate

District:

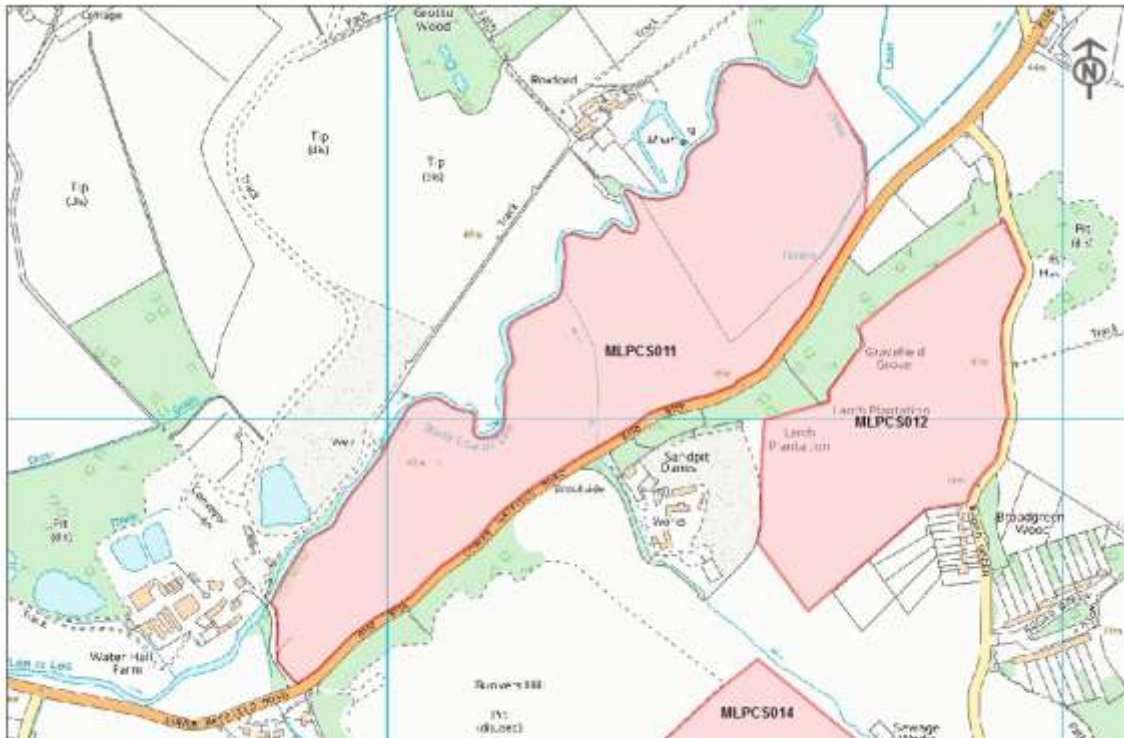
East Herts

Material Proposed for Extraction:

Sand and Gravel

Site Name: Water Hall Quarry – Farm Fields Area

Site Number: MLPCS011

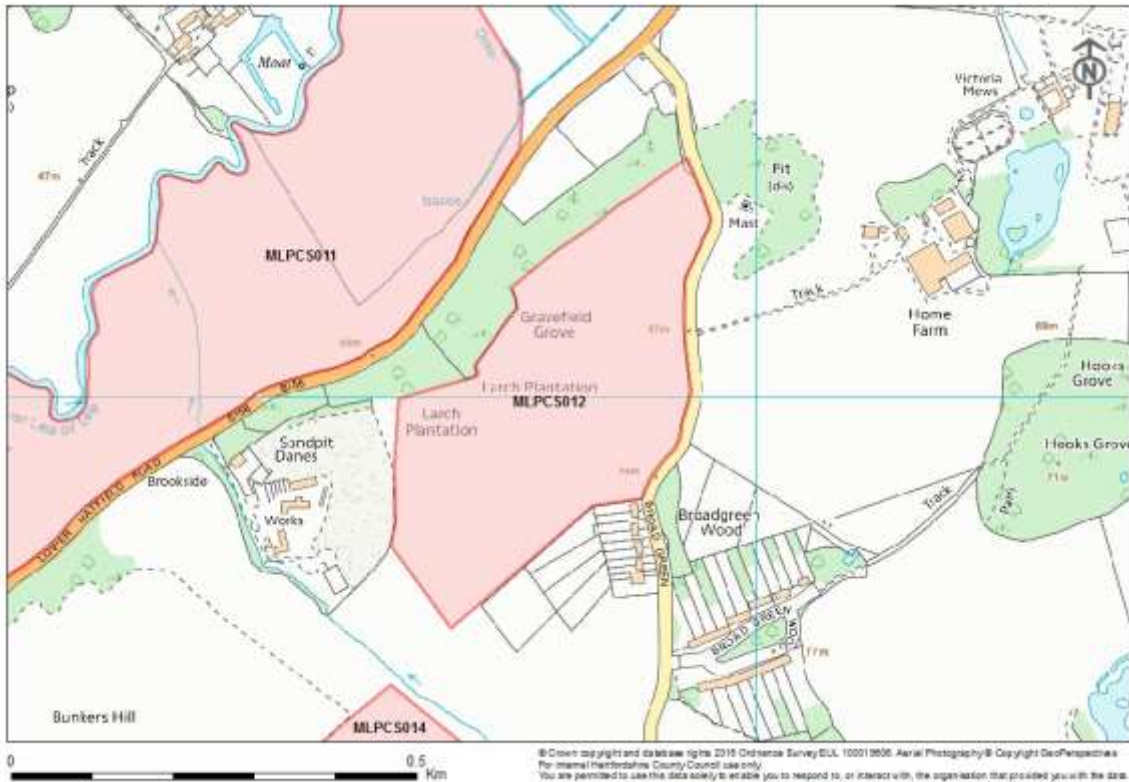


© Crown copyright and database rights 2016 Ordnance Survey Ltd. 100019006. Aerial Photography © Copyright GeoPerspectives. For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the originator that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. If you have any questions concerning how you can use this map please contact: 01438 840000.

Site Address:	Lower Hatfield Road, Hertford, SG13 8LF
Site Promoter:	TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Site Name: Water Hall Quarry – Broad Green Area

Site Number: MLPCS012

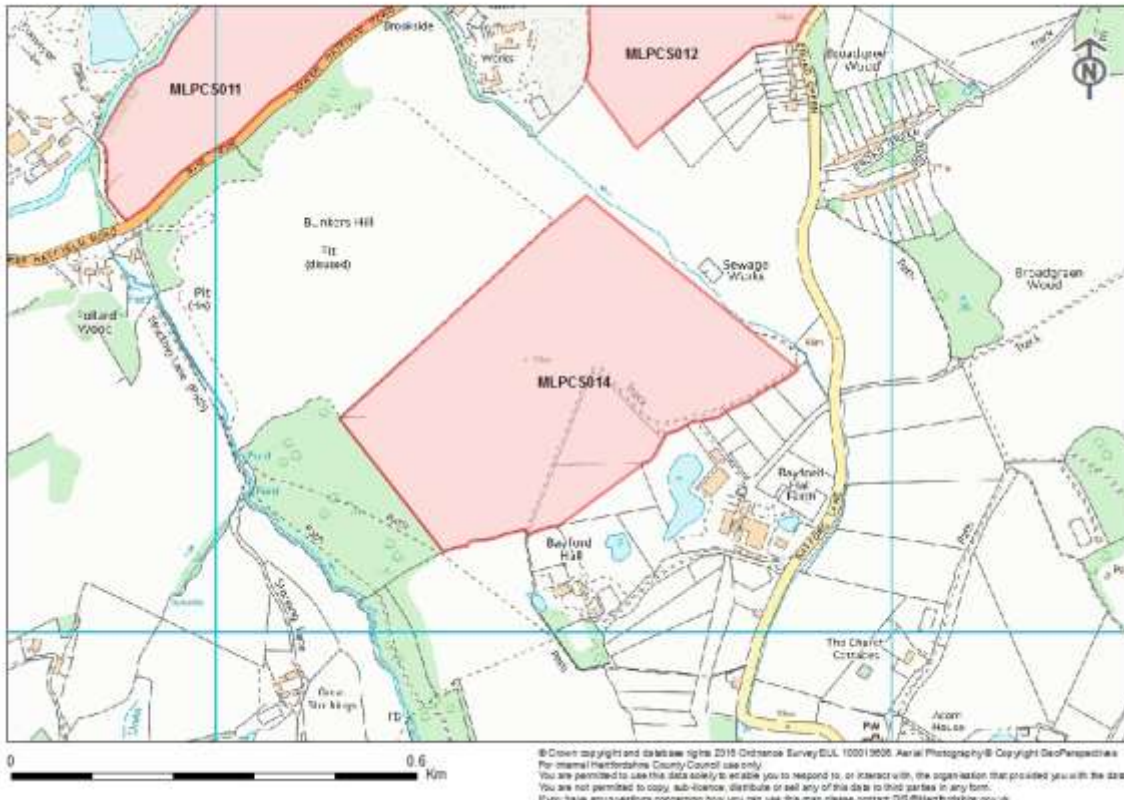


Site Address:	Lower Hatfield Road, Hertford, SG13 8LF
Site Promoter:	TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Site Name: Harry's Field		Site Number: MLPCS013	
<p>© Crown copyright and database rights 2016 Ordnance Survey Ltd. 100013858. Aerial Photography © Copyright GeoPerspective For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of the data in third parties in any form. If you have any questions concerning how you can use this map please contact GIS@Hertfordshire.gov.uk</p>			
Site Address:	Land at Ley Hill Road, Pudds Cross, Bovingdon, Dacorum, Hertfordshire HP3 0NJ		
Site Promoter:	Mike Chamley Associates Ltd. (Agent) on behalf of Bovingdon Brickworks Ltd.		
District:	Dacorum		
Material Proposed for Extraction:	Brick Clay		

**Site Name: Water Hall Quarry –
Bunkers Hill South Area**

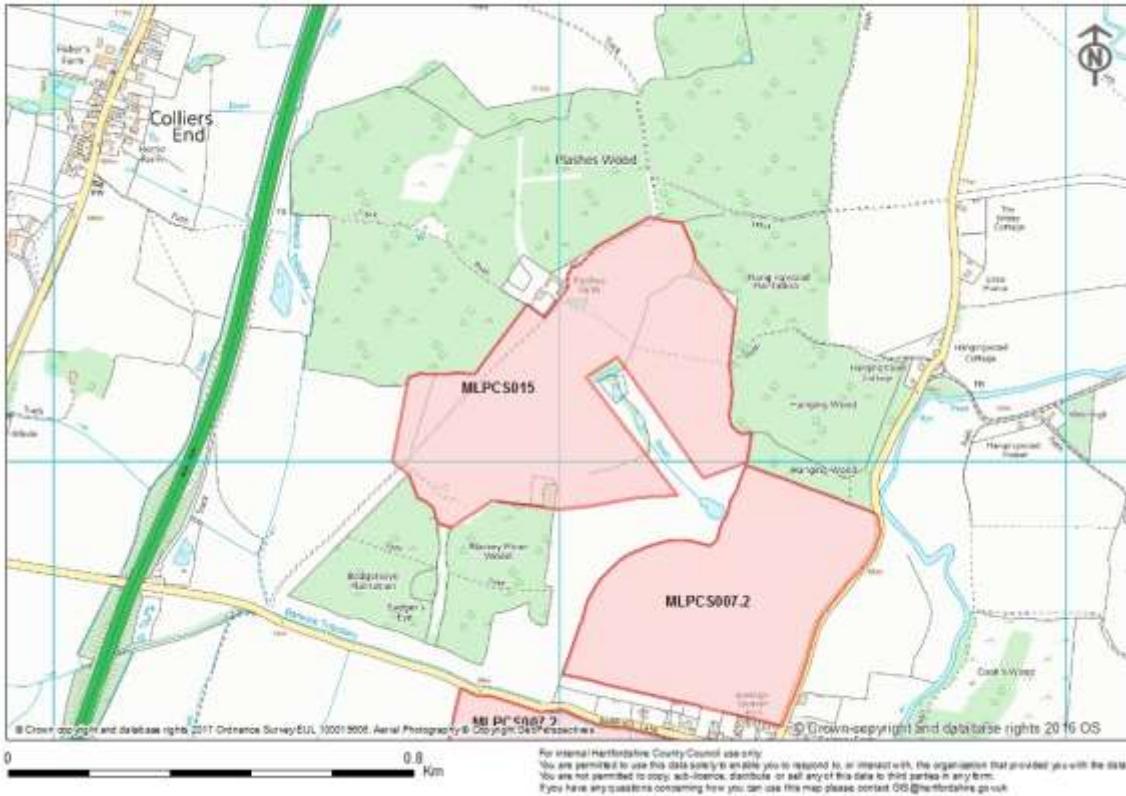
Site Number: MLPCS014



Site Address:	Lower Hatfield Road, Hertford, SG13 8LF
Site Promoter:	TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Site Name: Plashes Farm

Site Number: MLPCS015



Site Address: Plashes Farm, Gore Lane, Colliers End Hertford, SG11 1ES

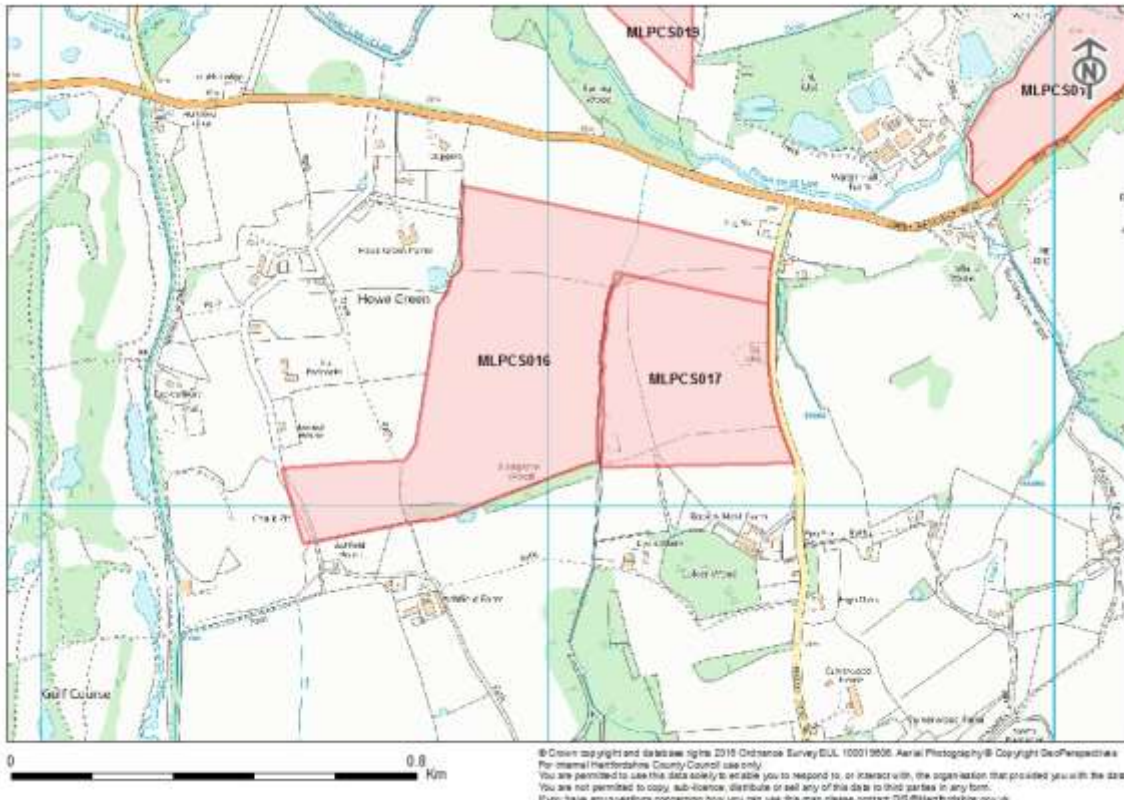
Site Promoter: TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited

District: East Herts

Material Proposed for Extraction: Sand and Gravel

Site Name: Water Hall Quarry – Howe Green Area

Site Number: MLPCS016



Site Address:

Lower Hatfield Road, Hertford, SG13 8LF

Site Promoter:

TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited

District:

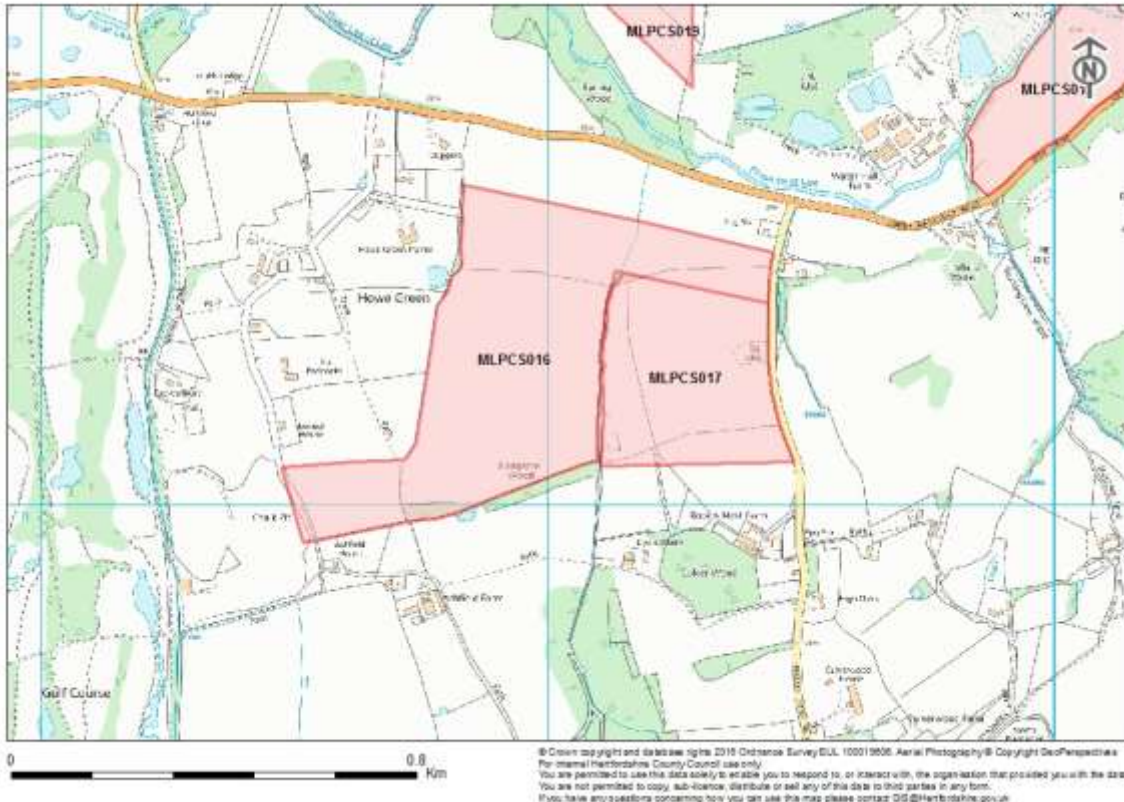
East Herts

Material Proposed for Extraction:

Sand and Gravel

Site Name: Robins Nest Hill

Site Number: MLPCS017



Site Address: Land off Robins Nest Hill, Little Berkampsted, Hertford, SG13 8LL

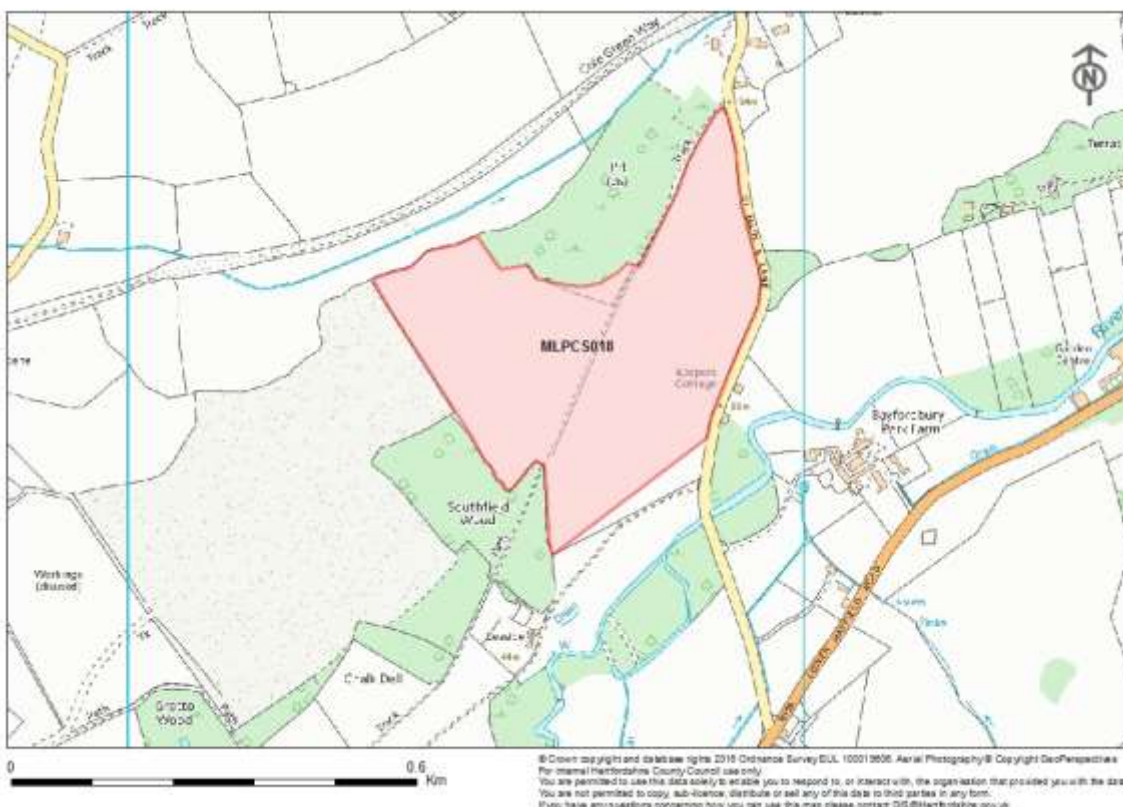
Site Promoter: TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited

District: East Herts

Material Proposed for Extraction: Sand and Gravel

Site Name: Southfield Wood East

Site Number: MLPCS018

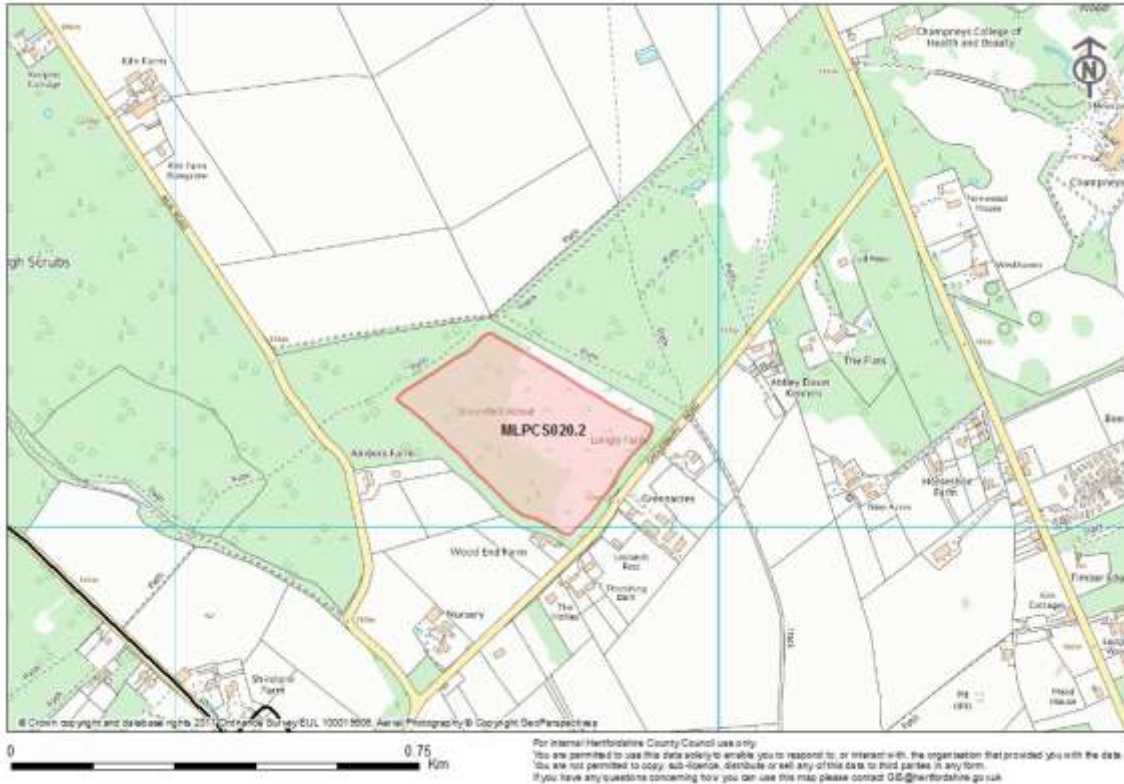


Site Address:	Land to East of Southfield Wood, Water Hall Quarry, Lower Hatfield Road, Hertford, SG13 8LF
Site Promoter:	TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Site Name: Pipers End		Site Number: MLPCS019	
<p>© Crown copyright and database rights 2016 Ordnance Survey Ltd. 100013808. Aerial Photography © Copyright GeoPerspective. For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of the data in third parties in any form. If you have any questions concerning how you can use this map please contact GIS@Hertfordshire.gov.uk</p>			
Site Address:	Land to West of Water Hall Quarry, Lower Hatfield Road, Hertford, SG13 8LF		
Site Promoter:	TerraConsult (South) Ltd (Agent) on behalf of Mrs J Lyons, Water Hall (England) Limited		
District:	East Herts		
Material Proposed for Extraction:	Sand and Gravel		

Site Name: Roundhill Wood

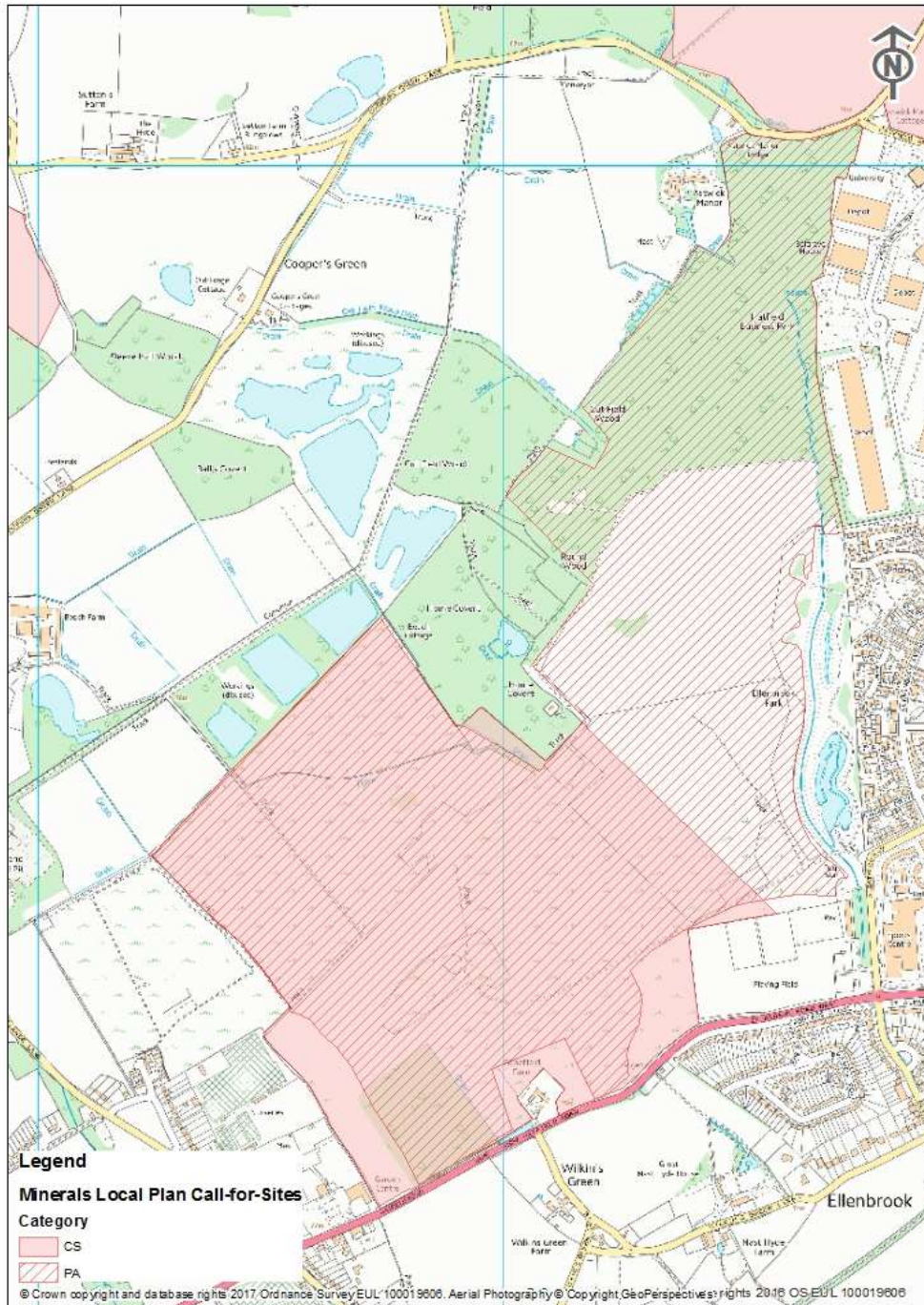
Site Number: MLPCS020



Site Address:	Roundhill Wood, Cholesbury Road, Tring, HP13 6JQ
Site Promoter:	Stephen Bowley Planning Consultancy (Agent) on behalf of Mr Norman Weiss
District:	Dacorum
Material Proposed for Extraction:	Brick Clay

Site Options Report Appendix 2- Preferred Areas Summary

Preferred Area 1	ID Number: PA1
-------------------------	-----------------------

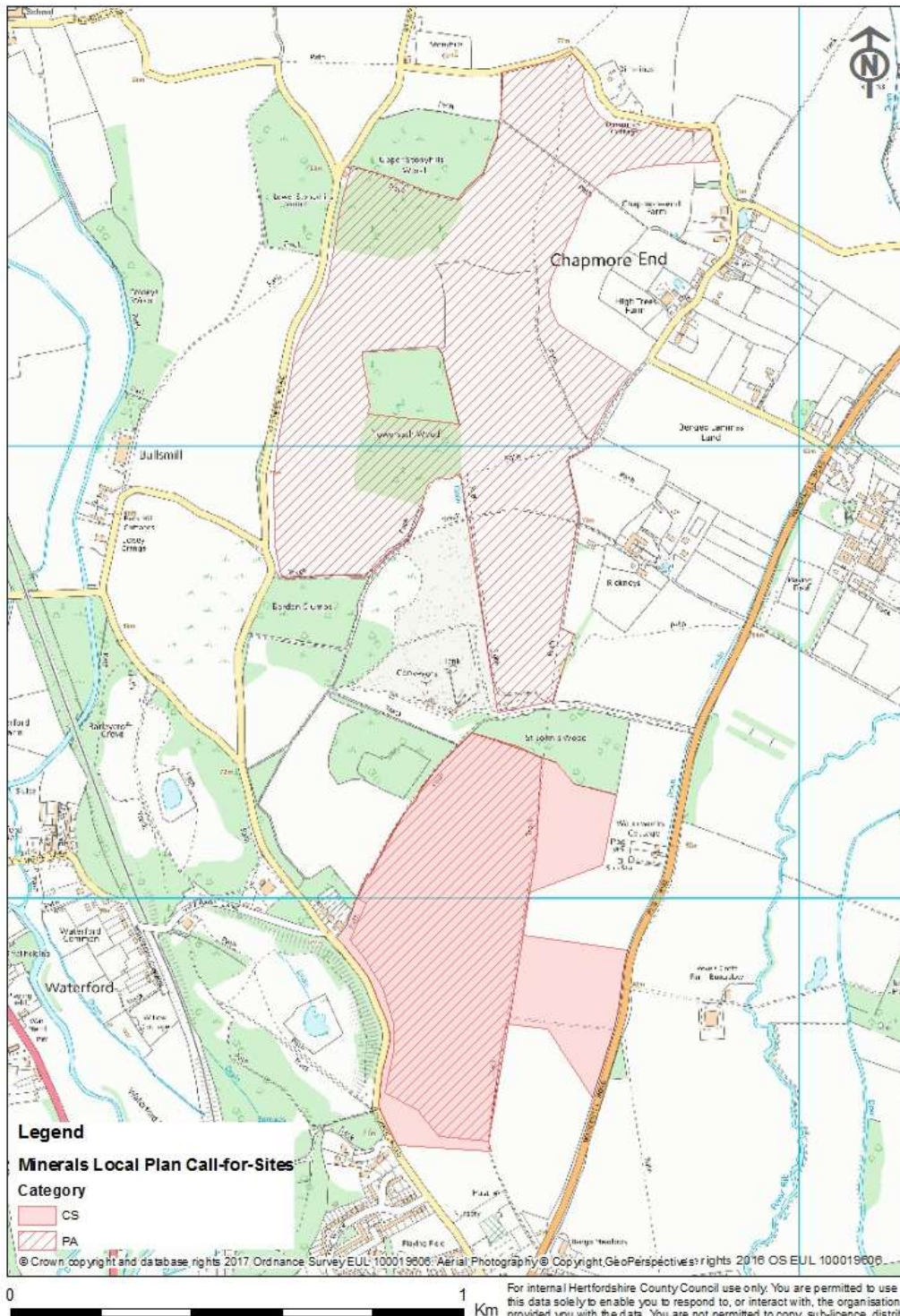


For internal Hertfordshire County Council use only. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. If you have any questions concerning how you can use this map please contact GIS@hertfordshire.gov.uk

Site Address:	Land at BAe/Land close to the existing Hatfield Quarry
District:	St Albans and Welwyn Hatfield
Material Proposed for Extraction:	Sand and Gravel

Preferred Area 2

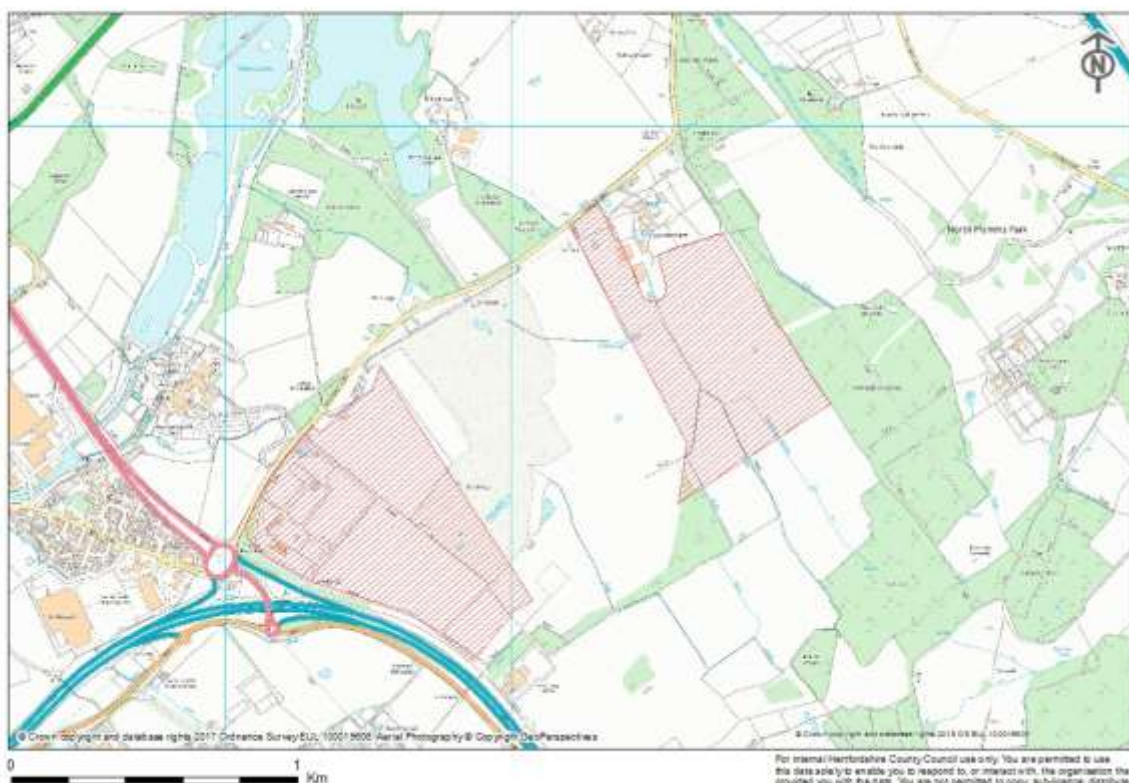
ID Number: PA2



Site Address:	Land to the north of the existing Rickneys Quarry
District:	East Herts
Material Proposed for Extraction:	Sand and Gravel

Preferred Area 3

ID Number: PA3



Site Address:	Land to the south-east of the existing Tyttenhanger Quarry
District:	Hertsmere
Material Proposed for Extraction:	Sand and Gravel



www.landuse.co.uk

Hertfordshire Minerals Local Plan Site Selection Report

Final Report
Prepared by LUC and Cuesta Consulting Ltd
March 2017

Project Title: Hertfordshire Minerals Local Plan Review

Client: Hertfordshire County Council

Version	Date	Version Details	Prepared by	Checked by	Approved by
1	09/08/2016	Initial Draft Report for client review (excludes MSA/MCAs and resource assessment)	Jonny Hill	Taran Livingston	Taran Livingston
2	22/12/2016	Full Draft Report	Jonny Hill, Josh Allen, Calum McCulloch, Alan Thompson	Taran Livingston	Taran Livingston
3	24/02/2017	Final Draft Report	Josh Allen, Sarah Smith, Taran Livingston	Taran Livingston	Taran Livingston
4	17/03/2017	Final Report	Josh Allen	Josh Allen	Jon Grantham



www.landuse.co.uk

Hertfordshire Minerals Local Plan Site Selection Report

Final Draft Report
Prepared by LUC and Cuesta Consulting Ltd
March 2017

Planning & EIA
Design
Landscape Planning
Landscape Management
Ecology
Mapping & Visualisation

LUC LONDON
43 Chalton Street
London
NW1 1JD
T +44 (0)20 7383 5784
london@landuse.co.uk

Offices also in:
Bristol
Glasgow
Edinburgh



FS 566056 EMS 566057

Land Use Consultants Ltd
Registered in England
Registered number: 2549296
Registered Office:
43 Chalton Street
London NW1 1JD
LUC uses 100% recycled paper

Contents

	Glossary of Abbreviations	1
1	Introduction	2
	Background	2
	Report Structure	2
2	Policy Requirements	3
	National Policy and Guidance	3
	Local Policy	6
3	Site Selection Methodology for Sand and Gravel	7
	Purpose	7
	Approach	7
	Sustainability Appraisal	8
	Habitats Regulations Assessment	8
	Site Selection Methodology for Sand and Gravel	8
	Sieve 1 – Resource Assessment – Major Constraints	9
	Sieve 2 – Resource Assessment	9
	Sieve 3 – Detailed Site Assessments	10
4	Site Selection Methodology for Brick Clay	30
5	Mineral Safeguarding	31
	Methodology	32
	Proposed MSAs and MCAs	33
6	Site and Preferred Area Assessment Findings	34
	Sieve 1 – Major Constraints	39
	Sieve 2 – Resource Assessment	39
	Sieve 3 – Detailed Site Assessments	40
7	Conclusions	72
	Sand and gravel site options	72
	Appendix 1	76
	Site and Preferred Area Proforma	76
	Appendix 2	206
	Hertfordshire Highways Department assessment of site options	206
	Tables	
	Table 2.1: Sand and Gravel Apportionment Levels from the 2015 Hertfordshire LAA	6
	Table 3.1: Evaluation Framework for Sieve 3	14
	Table 6.1: List of Sites put forward through the Call for Sites	38

Table 6.2 : Summary of the suitability of each of the sand and gravel sites and preferred areas against detailed site assessment criteria	43
Table 6.3: Summary of the suitability of each of the brick clay sites against detailed site assessment criteria	44
Table 6.4: Summary of the potential effects of the sand and gravel sites	45
Table 6.5: Summary of the potential effects of the brick clay sites	65
Table 6.6: Proposed sites and preferred areas ranked in terms of their potential impact on the site and surrounding environment	70

Figures

Figure 5.1: Sand & Gravel Resources in Hertfordshire	34
Figure 5.2: Proposed Mineral Safeguarding Areas for Sand & Gravel Resources in Hertfordshire	35
Figure 5.3: Brick Clay Resources in Hertfordshire	36
Figure 5.4: Proposed Mineral Safeguarding Areas for Brick Clay Resources in Hertfordshire	37
Figure 6.1: Location of Sites in County Context	41
Figure 6.2: Location of Sites	42
Figure 7.1: Site ranking based on the range and severity of likely adverse effects generated by each site	75

Glossary of Abbreviations

	Definition
AONB	Area of Outstanding Natural Beauty
BGS	British Geological Survey
BMV	Best and Most Versatile
HCC	Hertfordshire County Council
HRA	Habitats Regulations Assessment
IMAU	Industrial Minerals Assessment Unit
LAA	Local Aggregates Assessment
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
MCA	Minerals Consultation Area
MLP	Minerals Local Plan
MPA	Minerals Planning Authority
MSA	Minerals Safeguarding Area
PPG	Planning Practice Guidance
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest

1 Introduction

Background

- 1.1 Hertfordshire County Council (HCC), as the Minerals Planning Authority, is reviewing the existing Minerals Local Plan (adopted in 2007) to ensure that it is up-to-date and provides a reliable plan for at least a further 15 year plan period, plus an additional seven years for sand and gravel¹. The content of a Minerals Local Plan must meet the requirements of the National Planning Policy Framework (NPPF) and have regard to the content of the online national Planning Policy Guidance (PPG); both of which are discussed further in **Section 2** below. One of the key aspects of a Minerals Local Plan is to plan for a steady and adequate supply of aggregates by identifying specific sites, preferred areas and/or areas of search.
- 1.2 LUC and Cuesta Consulting were appointed in December 2014 by HCC to review the Council's previous mineral site selection methodology (developed in 2009), amend and update it where required, and then apply the methodology to identify suitable sites for the extraction of **sand and gravel** and **brick clay** in the county. In addition, a methodology for the identification of Minerals Safeguarding Areas (MSAs) and Minerals Consultation Areas (MCAs), and its subsequent implementation was required.
- 1.3 The conclusions and recommendations of this report will inform the emerging Minerals Local Plan (MLP), forming a key piece of its evidence base.

Report Structure

- 1.4 This report includes a thorough review of national policy and guidance, together with national and local information which has informed the analysis and approach undertaken. It was critical that the site selection methodology meets the statutory local plan requirements: to be positively prepared, justified, effective and consistent with national policy and guidance.
- 1.5 The remainder of this report is structured as follows:
 - **Chapter 2:** National and local policy requirements relating to selecting sites for inclusion in MLPs and identifying MSAs and MCAs.
 - **Chapter 3:** Describes the site selection methodology for sand and gravel and brick clay.
 - **Chapter 4:** Describes the approach to brick clay.
 - **Chapter 5:** Describes the methodology for defining MSAs and MCAs and presents the proposed MSAs/MCAs.
 - **Chapter 6:** Sets out the findings of the sand and gravel and brick clay site and preferred area assessments.
 - **Chapter 7:** Study conclusions.
- 1.6 In addition, the Report contains two appendices:
 - **Appendix 1:** Completed Site Assessment Proforma.
 - **Appendix 2:** Hertfordshire Highways Department assessment of site options.

¹ This is to ensure that the required landbank for sand and gravel can be met. As such, the total period for sand and gravel is 22 years.

2 Policy Requirements

National Policy and Guidance

- 2.1 Minerals are essential to support economic growth and our quality of life. Paragraph 142 of the NPPF² states that it is important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs, and emphasises that minerals can only be worked where they are found and it is important to make best use of them to secure their long-term conservation. This highlights the importance of the need to facilitate a steady and adequate supply of minerals, as required by the NPPF. Therefore a positively prepared, justified, effective approach to the site selection methodology and site selection study, which is consistent with national policy and guidance, is essential.

Site Selection for Aggregates

- 2.2 The NPPF states in paragraph 145 that Minerals Planning Authorities (MPAs) should plan for a steady and adequate supply of aggregates by:
- *“...making provision for the land-won and other elements of their Local Aggregate Assessment in their mineral plans taking account of the advice of the Aggregate Working Parties and the National Aggregate Co-ordinating Group as appropriate. Such provision should take the form of specific sites, preferred areas and/or areas of search and locational criteria as appropriate;*
 - *...making provision for the maintenance of landbanks of at least 7 years for sand and gravel and at least 10 years for crushed rock, whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised...;”*
- 2.3 The online National Planning Practice Guidance³ (PPG) elaborates on the policies included in the NPPF, stating in paragraph 008 that MPAs should *“plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):*
- *designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;*
 - *designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or*
 - *designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply”.*
- 2.4 In exceptional circumstances, such as where a MPA is largely made up of designated areas protection areas such as Areas of Outstanding Natural Beauty (AONBs), it may be appropriate to rely largely on policies which set out the general conditions against which applications will be assessed. However, it should be noted that HCC is not largely made up of designated sites/areas, and the main resource in the County, sand and gravel, is located outside the Chilterns AONB.
- 2.5 It is essential that when undertaking site selection that accurate and high quality data is used, as paragraph 009 of the PPG states that the better the quality of data available to MPAs, the better the prospect of a site being designated as a Specific Site. Designating Specific Sites in minerals plans provides the necessary certainty on when and where development may take place.
- 2.6 It must be borne in mind that under certain circumstances it may be preferable to focus on extensions to existing sites rather than plan for new sites. For example, it is likely that due to

² National Planning Policy Framework. CLG, 2012.

³ Retrieved on 25th July 2016 from: <http://planningguidance.planningportal.gov.uk/>

plant and infrastructure already being in place, an extension to an existing mineral site may, in some cases, be able to work resources that would not otherwise be commercially viable, if worked in isolation as a new site. However, paragraph 010 of the PPG states that the suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as:

- need for the specific mineral;
- economic considerations (such as being able to continue to extract the resource, retaining jobs, being able to utilise existing plant and other infrastructure);
- positive and negative environmental impacts (including the feasibility of a strategic approach to restoration; for example the use of ecosystem services and landscape-scale restoration opportunities to guide the location of future minerals extraction such that it optimises the generation of long-term environmental benefits); and
- the cumulative impact of proposals in an area.

Industrial Minerals

2.7 Industrial minerals are accounted for separately in the NPPF and PPG due to differences in the ways in which they are worked, the wide range of uses they have and the range of markets they supply. As a result, paragraph 086 of the PPG states that MPAs should recognise that there are marked differences in geology, physical and chemical properties, markets and supply and demand between different industrial minerals, which can have different implications for their extraction. The differences of particular relevance to brick clay, and which therefore need to be taken account of in the site selection methodology, include:

- geology influencing the size of the mineral resource, how it may be extracted and the amount of mineral waste generated;
- the fact that markets are based on the consistent physical properties of the products (bricks, in this case); and
- the potential for the quality of clay extracted from a single site varying considerably within the site. This may require multiple extraction faces within one quarry and blending to produce a consistent end-product.

Environmental Considerations

2.8 Environmental impacts from both aggregate and industrial mineral extraction require assessment. Significant environmental impacts are best addressed through consideration of an Environmental Impact Assessment which accompanies planning applications for most new mineral workings. However, when undertaking site selection as part of minerals plan preparation, MPAs need to consider planning and environmental constraints and site specific details for similar issues, albeit it in a different level of detail. Paragraph 013 of the PPG states that the principal issues that MPAs should address, bearing in mind that not all issues will be relevant at every site to the same degree, and not all issues can be addressed at the plan preparation stage, include:

- noise associated with the operation
- dust;
- air quality;
- lighting;
- visual impact on the local and wider landscape;
- landscape character;
- archaeological and heritage features;
- traffic;
- risk of contamination to land;
- soil resources;

- geological structure;
- impact on best and most versatile agricultural land;
- blast vibration;
- flood risk;
- land stability/subsidence;
- internationally, nationally or locally designated wildlife sites, protected habitats and species, and ecological networks;
- impacts on nationally protected landscapes (National Parks, the Broads and Areas of Outstanding Natural Beauty);
- nationally protected geological and geomorphological sites and features;
- site restoration and aftercare;
- surface and, in some cases, ground water issues; and
- water abstraction.

2.9 Not all of the issues listed above will be relevant to all sites, and not all of them will be able to be addressed properly at the site selection stage, but this list provides a useful starting point for issues to be considered.

2.10 Policy such as paragraph 90 of the NPPF also needs to be taken into account when considering planning and environmental constraints. Paragraph 90 outlines how mineral extraction is not an inappropriate form of development in the Green Belt provided it preserves the openness of the Green Belt and does not conflict with the purposes of including land in Green Belt. The purposes of Green Belt are:

- 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 special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Mineral Safeguarding

2.11 Paragraph 143 of the NPPF sets out the requirement for MPAs to ensure that their Local Plans define Mineral Safeguarding Areas (MSAs) and adopt appropriate policies in order that known locations of specific minerals resources are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked. Mineral Consultation Areas (MCAs) should then be defined based on the MSAs. In addition to mineral resources, Local Plans should safeguard existing, planned and potential facilities for the bulk transport of minerals by rail, sea and inland waterways; and set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place. In the case of Hertfordshire, this means that existing and disused railheads, such as the five rail depots which transport mineral throughout the county and beyond, should be safeguarded.

2.12 The PPG and the British Geological Survey report 'Mineral safeguarding in England: good practice advice'⁴ provides guidance on minerals safeguarding, including the steps MPAs should take to safeguard mineral resources, and what the role is of the district council, as the local planning authority, in safeguarding minerals.

2.13 The PPG states that MPAs should adopt a systematic approach for safeguarding mineral resources, which:

⁴ British Geological Survey (BGS) report 'Mineral safeguarding in England: good practice advice' (Wrighton et. al., 2011)

- uses the best available information on the location of all mineral resources in the authority area. This may include use of British Geological Survey maps as well as industry sources;
- consults with the minerals industry, other local authorities (especially district authorities in two-tier areas), local communities and other relevant interested parties to define Minerals Safeguarding Areas;
- sets out Minerals Safeguarding Areas on the policies map that accompanies the local plan and defines Mineral Consultation Areas; and
- adopts clear development management policies.

2.14 The PPG (paragraph 005) also outlines the important role district councils have in safeguarding minerals, for example, having regard to the minerals local plan when identifying suitable areas for non-mineral development in their local plans, and showing MSAs on their policy maps.

Local Policy

2.15 In accordance with paragraph 145 of the NPPF, MPAs should plan for a steady and adequate supply of aggregates by preparing an annual Local Aggregates Assessment (LAA), either individually or jointly by agreement with another or other MPAs, based on a rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options (including marine-dredged, secondary and recycled sources).

2.16 Paragraph 061 of the PPG defines the LAA as *“an annual assessment of the demand for and supply of aggregates in a MPAs area”*. The purpose of the LAA is to assess the current local mineral provision against the requirements detailed in the NPPF and PPG, including the Government’s Guidance on the Managed Aggregate Supply System.

2.17 Hertfordshire County Council published its most recent LAA in 2015⁵. The LAA states that the county council will seek to plan for the agreed East of England Aggregates Working Party sub-regional apportionment level for sand and gravel (1.39 million tonnes per annum (mtpa)) to provide for flexibility to maintain supply when the economy recovers. This will ensure that an adequate and steady supply of aggregate is achieved over the longer term.

2.18 Chapter 7 of the 2015 Hertfordshire LAA states that using the East of England Aggregates Working Party sub-regional apportionment of 1.39 mtpa, the county does not have sufficient permitted reserves to fulfil the requirement for a 15 year Minerals Local Plan period (the same would be true if the alternative approaches of using the 10 year rolling average sales or the 3 year average sales figures were to be followed). As a result, HCC are seeking to address the identified shortfall in permitted reserves by allocating sufficient land in the review of the Minerals Local Plan. This site selection methodology report and the subsequent site selection study aim to support this process.

Table 2.1: Sand and Gravel Apportionment Levels from the 2015 Hertfordshire LAA

Apportionment Level	Total
East of England AWP apportionment figure	1.39 million tonnes per annum
10 year average sales figure (2005-2014)	1.13 million tonnes per annum
3 year average sales figure (2012-2014)	1.15 million tonnes per annum.

⁵ Retrieved on 9th August 2016 from: <http://www.hertsdirect.org/services/envplan/plan/hccdevplan/mlp/locaggassmt/>

3 Site Selection Methodology for Sand and Gravel

Purpose

- 3.1 The purpose of the site selection study for sand and gravel was two-fold:
- The first purpose was to assess the potential sand and gravel sites put forward through the Call for Sites process. HCC undertook a Call for Sites in early 2016, the aim of which was to receive detailed site proposals from quarry operators, land owners etc. The site-specific information submitted through this process was detailed, enabling a comparative assessment of potential sites through implementation of the site selection methodology. This process identifies, where appropriate, specific sites for allocation in the Minerals Local Plan.
 - The second purpose was to enable the identification of areas to be allocated as preferred areas and/or areas of search if required.

Approach

- 3.2 The approach to developing the site selection methodologies for sand and gravel and brick clay, and methodology for the identification of MSAs and MCAs began with a review of the Council's existing site selection methodology in light of the current policy requirements, as summarised in **Section 2**. The review of policy requirements provided the background and context for developing the methodologies.
- 3.3 The Council's existing site selection methodology was used to identify sand and gravel sites during development of the 2007 Hertfordshire Minerals Local Plan, and was consulted upon in 2009. The comments received during that consultation, the current policy requirements, and updated background data and assumptions, were all used to inform the amended and updated draft site selection methodologies. These were prepared by LUC and Cuesta, working alongside officers at HCC.
- 3.4 Once drafted, the site selection methodologies for sand and gravel and brick clay, together with the methodology for the identification of MSAs and MCAs, were discussed at the Interested Parties Workshop held on 19th March 2015. The Workshop involved invited representatives of statutory and non-statutory consultees, industry and neighbouring local authorities.
- 3.5 The discussions that took place at the Workshop and comments made were noted and collated by HCC. Invitees were also given a two week period following the Workshop within which any additional comments could be submitted to HCC. These were reviewed and used to inform the final draft site selection methodologies for public consultation.
- 3.6 The final draft site selection methodologies were consulted upon as part of the initial consultation on the review of the MLP, which took place between 3rd August and 16th October 2015. Consultation responses received were analysed and used to inform the final site selection methodologies described below and in Chapters 4 and 5.
- 3.7 Since the initial consultation it was noted by LUC that the potential impact on airports had been omitted from the assessment criteria. Aircraft are vulnerable to birdstrikes, and 80% of all strikes occur on an aircraft's take-off or landing phase of flight, therefore highlighting the necessity for wildlife management on and within proximity of an airfield. Many types of development can attract birds, including large-flat roofed structures, landfill sites, gravel pit restoration schemes and nature reserves. As such, it was considered necessary that this should be added to the assessment criteria.

Sustainability Appraisal

- 3.8 Under the Planning and Compulsory Purchase Act 2004, Sustainability Appraisal (SA) is mandatory for Local Development Documents, including MLPs prepared by County Councils. For these documents it is also necessary to conduct an environmental assessment in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive (European Directive 2001/42/EC). Therefore, it is a legal requirement for the emerging MLP to be subject to SA and SEA throughout its preparation.
- 3.9 To this end, the proposed site selection methodologies which were subject to initial consultation were reviewed against the SA framework. Further information regarding this can be found in the Hertfordshire Minerals Local Plan Sustainability Appraisal and Strategic Environmental Assessment Scoping Report (May 2015). The next stage of the SA/SEA has appraised the sustainability effects of all the potential mineral site options once they have been put through Sieves 1 and 2 of the site selection methodology (see below).

Habitats Regulations Assessment

- 3.10 When preparing the Minerals Local Plan, Hertfordshire County Council is also required by law to carry out a Habitats Regulations Assessment (HRA), under the Conservation of Habitats and Species Regulations 2010⁶. The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is explained in the national Planning Practice Guidance.
- 3.11 The HRA refers to the assessment of the potential effects of a development plan on one or more European sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). Potential SPAs (pSPAs)⁷, candidate SACs (cSACs)⁸, Sites of Community Importance (SCIs)⁹ and Ramsar sites should also be included in the assessment. A separate HRA Report has been prepared, which assesses the likely significant effects of the potential mineral site options on these types of nature conservation sites. None of the potential site allocations in the Minerals Local Plan are considered likely to have a significant effect on the European sites within 10km of Hertfordshire. However, the potential for in-combination effects is highlighted depending on which sites are preferred for allocation.

Site Selection Methodology for Sand and Gravel

- 3.12 The methodology for site selection for sand and gravel focused primarily on the identification of potential Specific Sites but also included consideration of more broadly-defined Preferred Areas and/or Areas of Search. The requirements are set out in para. 145 of the NPPF, and the terms are defined in paragraph 008 of the associated online Planning Practice Guidance.
- 3.13 Specific Sites were identified, initially, through a Call for Sites exercise, using a set of criteria and an associated assessment framework to narrow down alternative options, thereby identifying the most appropriate sites for allocation within the MLP. Once the specific site proposals had been received, the selection methodology consisted of three stages referred to as 'sieves', with the intention of sites being screened out of further detailed assessment if they did not meet the sieving criteria. However, in practice, the results of Sieve 2 and 3 were considered alongside each other when determining the potential suitability of sites. The same assessment process was applied to the existing three preferred areas¹⁰ within the adopted Hertfordshire Minerals Local Plan so that the preferred areas could be compared to the sites identified through the call for sites exercise.

⁶ Conservation of Habitats and Species Regulations 2010 (SI No. 2010/490).

⁷ Potential SPAs are sites that have been approved by Government and are currently in the process of being classified as SPAs.

⁸ Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted.

⁹ SCIs are sites that have been adopted by the European Commission but not yet formally designated as SACs by the Government.

¹⁰ The preferred areas represent areas of the County's mineral reserves which are considered to have potential for defining further sand and gravel extraction sites if required.

- 3.14 It is important to note that at this stage the detailed site assessments undertaken for this exercise are not replacements for the assessments required as a part of any planning application for a minerals site.
- 3.15 The three stages in the site selection methodology were:
- **Sieve 1 – Major Constraints:** Discounting sites and/or areas, either in part or in full, which are subject to identified major constraints.
 - **Sieve 2 – Resource Assessment:** With regard to the identification of specific sites, this sieve involved the verification of evidence relating to commercial viability and deliverability put forward through the Call for Sites process.
 - **Sieve 3 – Detailed Site Assessments:** Assessed the sites that passed through Sieves 1 and 2 against more detailed environmental and planning constraints.
- 3.16 The three sieves are further described below.

Sieve 1 – Resource Assessment – Major Constraints

- 3.17 Certain constraints are acknowledged as absolute constraints to future minerals working. Therefore, any areas of resource or proposed sites (from the Call for Sites process) that fell within these constraints were not taken forward to Sieve 2. Where a site or area falls partly within an absolute constraint, that proportion of the site or area was discounted. The absolute constraints are:
- Urban areas, based on the Office of National Statistics urban area dataset, which includes built up areas and built up area subdivisions¹¹ (built-up areas (BUA) and built-up area subdivisions (BUASD) are a new geography, created as part of the 2011 Census outputs. This data provides information on the villages, towns and cities where people live, and allows comparisons between people living in built-up areas and those living elsewhere. The definition follows a “bricks and mortar” approach, with BUAs defined as land with a minimum area of 20 hectares (200,000 square metres), while settlements within 200 metres of each other are linked).
 - Sites with extant planning permission for other development (for the identification of preferred areas or areas of search, these were limited to those sites whose area is greater than 5ha due to difficulties associated with collection of data for smaller planning permissions such as house extensions etc.).
 - Previously worked areas.

Sieve 2 – Resource Assessment

- 3.18 The purpose of Sieve 2 was to confirm the viability and deliverability of the sites put forward for consideration as Specific Sites. In line with the agreed methodology, it was assumed that sites put forward by, or with the clear involvement of, the minerals industry would be likely to be economically viable prospects. However, site-specific evidence for this was requested to be provided through the Call for Sites process to demonstrate deliverability during the Plan period. A further request for information from site promoters was made by HCC in September 2016.
- 3.19 Examples of the evidence required for specific sites put forward in this way included confirmation of both mineral operator and land owner willingness for mineral development to take place during the Plan period; evidence of the tonnage of reserves likely to be capable of being extracted within the Site; and confirmation that any mitigation measures needed to avoid significant adverse effects on the local environment had been taken into account by the proposer in assessing the Site’s economic viability. Information submitted for each Site on each of these issues was scrutinised methodically as part of the Sieve 2 assessment, which also included independent

¹¹ Retrieved on 25th July 2016 from: <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/census/built-up-areas---built-up-area-sub-divisions/index.html>

checks on the availability and characteristics of the resources likely to be present. The findings of these assessments are presented at **Appendix 1**.

- 3.20 The British Geological Survey (BGS) digital resource map for Hertfordshire was used as the starting point for the confirmation of resource availability. Before being used, the resource outlines as supplied by the BGS (Sand_and_Gravel_Superficial_v2, dated August 2016) were closely checked and updated to reflect the latest available information. This included confirmation of geological and resource information by comparison with the BGS's earlier Industrial Mineral Assessment Unit (IMAU) reports and accompanying 1:25,000-scale resource maps and borehole logs, and with the latest available BGS superficial geology mapping.
- 3.21 No additional borehole information was made available by industry to identify new resource areas or to eliminate previously identified resources. Significant refinements were able to be made, however, by eliminating previously worked resource areas. This was achieved utilising two additional sources of data: HCC's GIS outlines of worked, partly worked and operational mineral permissions; and the outlines of lakes (as shown on the latest OS topographic mapping) which were formed in parts of the Colne and Lee River valleys, as a result of former gravel extraction.
- 3.22 The resulting updated resource outlines, together with the underlying IMAU borehole data, were then utilised to confirm the availability of workable resources within each of the proposed allocation sites, and in each of the existing Preferred Areas. They were also used as the basis for identifying Mineral Safeguarding Areas (as explained further in Chapter 5 below).
- 3.23 As part of the Sieve 2 assessment, consideration was also given to the three **existing Preferred Areas** for future sand & gravel extraction within Hertfordshire:
- Preferred Area 1 comprises land close to the existing Hatfield Quarry. The south-western part is now a specific site proposal (Hatfield Aerodrome 5/0394-16), whilst the remaining, northern part is unworked and has not been subject to any previous applications for mineral working (as far as the GIS records show). The land is underlain by the same mineral resources as were worked in adjoining sites (i.e. Kesgrave sand & gravel beneath an overburden of glacial till) and having inspected the available resource information, including IMAU reports, with the exception of any specific site allocations, all of it justifies remaining as a Preferred Area for future working.
 - Preferred Area 2 comprises two separate parcels of land, to the north and south of the existing Rickneys Quarry. The southern area is now included within a specific site proposal (Ware Park 3/0770-16), which also extends further east in places. The northern area has been subject to previous planning applications for mineral extraction dating from 1988 to 1995, all of which were withdrawn. All of the land is underlain by the same mineral resources as worked in Rickneys Quarry (i.e. Kesgrave sand & gravel overlain in part by an overburden of glacial till) and again, with the exception of any specific site allocations, all of it justifies remaining as a Preferred Area for future working.
 - Preferred Area 3 comprises land to the south-east of the existing Tyttenhanger Quarry, almost all of which has now been worked, as extensions to that site. It should now be removed as a Preferred Area.

Sieve 3 – Detailed Site Assessments

- 3.24 The final step of the site selection methodology involved the consideration of high level designations together with more detailed local planning and environmental constraints, considerations and opportunities, and (where practicable) site specific details, including findings from the parallel Sustainability Appraisal (SA) process, Landscape and Visual Sensitivity Study and comments from HCC Highways officers.
- 3.25 Those sites and preferred areas that passed through Sieve 2 were assessed against these more detailed criteria and subjected to the evaluation process and scoring system outlined in **Table 3.1** below. Each criterion includes an explanation of how each score was applied in order to evaluate the relative merits and constraints of the potential sites. This allowed for a more detailed comparison to be made between site options. This sieve also had the ability to reduce the size of the areas taken forward rather than discounting them completely.

Agenda Pack 111 of 454

- 3.26 The criteria included in **Table 3.1** have been informed by Paragraph 013 of the PPG which outlines the principal issues that MPAs should address (as stated in **Section 2**), professional experience and feedback received through the Interested Parties Workshop and public consultation. Specific definitions of the term 'proximity' used within the scoring framework in **Table 3.1** was established during implementation of the site selection methodology, using established policy, guidance and best practice distances where possible. For example, paragraph 022 of the online PPG advises local planning authorities to:
- "...consult the Forestry Commission about development proposals that contain or are likely to affect Ancient Semi-Natural woodlands or Plantations on Ancient Woodlands Sites (PAWS) (as defined and recorded in Natural England's Ancient Woodland inventory), including proposals where any part of the development site is within 500 metres of an ancient semi-natural woodland or ancient replanted woodland, and where the development would involve erecting new buildings, or extending the footprint of existing buildings".*
- 3.27 To exclude potential sites at an earlier stage can be a difficult balancing exercise – taking account of the need for greater 'front-loading' of the planning process (as required by the Planning and Compulsory Purchase Act 2004), without risking the challenge of judicial review. Therefore, it was prudent to limit the depth of analysis carried out during this sieve, focusing primarily on any obvious reasons for inclusion or exclusion.
- 3.28 It is important that this evaluation process is not seen as a means of pre-judging the outcome of subsequent planning applications. It would be wrong, for example, to exclude a proposed site simply because it overlaps a particular designation, if it was felt that the resulting impacts were capable of being adequately mitigated; or if it were considered likely that the only alternative options would be less sustainable, overall. In many cases, such issues can only be properly addressed at the planning application stage, following detailed environmental assessment (which may include Environmental Impact Assessment required by the Town and Country Planning (Environmental Impact Assessment) Regulations 2011).
- 3.29 It is also important to note that few, if any, designations are an absolute obstacle to mineral extraction. For example, some of the designations considered in Sieve 3 are subject to the highest level of protection in the NPPF but, nevertheless, do not entirely exclude the possibility of mineral extraction (for example if there is an overriding need for the mineral and no reasonable alternatives, or if potential impacts can be adequately mitigated and/or if there are sufficient beneficial effects that could be achieved through appropriate restoration). However, recognising the statutory protection afforded to national and international designations is important, therefore these criteria include a 'dark red' category.
- 3.30 A number of potential criteria were considered for inclusion in Sieve 3, but not taken forward, for the following reasons:
- **Major Services** (gas pipelines, water pipelines, electricity transmission lines): Discounted due to detailed data and information not being available at this strategic stage of assessment.
 - **Drainage**: Discounted as drainage is a site specific matter that would be dealt with at the planning application stage.
 - **Commercial and economic issues**: Discounted due to this information being problematic to quantify and score consistently and comparably. Economic resource viability issues are dealt with under Sieve 2.
 - **Mineral sterilisation**: This is partly addressed through the Sieve 3 criterion: Proximity of allocated residential or built development. However, scoring resource areas/sites on the extent to which mineral may be vulnerable to sterilisation by other development if not allocated for extraction is not considered appropriate as part of the site selection methodology. Economically viable minerals in Hertfordshire will be afforded relevant protection by the designation of MSAs and MCAs, and the supporting development management policies adopted as part of the emerging MLP.
 - **Chalk streams**: The inclusion of a criterion relating to chalk streams was raised during the public consultation. Whilst recognised as an important natural feature and habitat, it is possible for mineral extraction to occur in close proximity to a chalk stream. This is

considered to be a site specific issue that would be dealt with at the planning application stage.

- **Sensitive receptors:** The inclusion of an additional criterion to assess proximity of potential mineral extraction sites to particularly sensitive receptors was raised during the public consultation. Such considerations beyond those criteria already included in Sieve 3, are considered.

3.31 It is important to bear in mind that mineral workings are considered to be compatible with certain constraints such as Best and Most Versatile (BMV) agricultural land and Green Belt. Whilst the PPG includes 'impact on BMV land' as an environmental issue that must be addressed by MPAs, minerals extraction is not precluded on this land designation. Paragraph 12 of the NPPF states that:

"Local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality."

3.32 It has long been recognised that minerals working can be accommodated on BMV agricultural land provided that high environmental standards are maintained, best practice soil handling techniques are adhered to and sites are well restored. The PPG goes on to require that where mineral working is proposed on BMV land, the outline restoration and aftercare strategy should show, where practicable, how the methods used in the restoration and aftercare enable the land to retain its longer term capability, though the proposed after-use need not always be for agriculture.

3.33 The NPPF states that the Government attaches great importance to Green Belts, noting that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. Paragraph 90 of the NPPF lists those forms of development which are not inappropriate in Green Belt provided that they "preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt". These potential exemptions include mineral extraction, (largely because this is recognised as being a temporary use of land, with a capability of delivering progressive restoration, and because minerals can only be worked where they occur).

3.34 It is important to note that some of the criteria identified in **Table 3.1** (e.g. Cumulative Effects and Restoration) will also be able to be considered in greater detail once all potential resource areas/sites are known, as it is difficult to consider this solely on a site by site basis.

3.35 As shown in **Table 3.1** each of the criteria was considered in detail and was not approached as a blanket constraint. As noted earlier, in some cases a potential effect can be made acceptable through the use of appropriate mitigation and it is important that the sieve methodology does not pre-judge matters that should more properly be dealt with at the planning application stage. The assessment of a site and/or area against each of these criteria will not result in a simple yes or no; a range of evaluation scores and assumptions for each consideration have been developed, complementing the approach that has been undertaken during the SA of the Minerals Local Plan.

3.36 The information used to assess sites and areas against the criteria in **Table 3.1** was provided from a range of sources including spatial data in GIS form, HCC's own expertise (such as the Highways Team and the Minerals and Waste Planning Team), accessible online data sources maintained by statutory consultees (e.g. Environment Agency) and other sources of relevant environmental and sustainability information. However, data for some of the criteria, such as restoration opportunities and other unique local factors were not able to be supplied in GIS format. Such data was sought through the Call for Sites, from those putting forward potential sites and areas for consideration and/or from other stakeholders. In addition, the baseline information and findings from other studies undertaken by and for the Council such as the Sustainability Appraisal, Habitats Regulations Assessment and Strategic Flood Risk Assessment has been used.

3.37 Finally, while most of the site selection judgements throughout the Sieves were completed through a desk-based review of relevant information, site visits were also undertaken during Sieve 3 to verify judgements made on site.

- 3.38 In order to record the findings of the site selection process, a simple proforma (see **Appendix 1**) has been completed for each site or area, compiling information derived from GIS analysis of spatial data (e.g. proximity to environmental designations and sensitive or incompatible existing / planned development) and other (non-GIS) factors, and providing a score for each criterion. The scores for each site against all criteria are summarised in Table 6.2. This approach provides a simple but effective way to evaluate sites in a consistent, robust and transparent manner. In addition, at the bottom of each site proforma, summaries of the findings of the landscape and visual sensitivity and HCC Highways assessments were recorded. These findings were taken into account alongside the Sieve 3 criteria judgements to help identify the site options likely to be most suitable for allocation within the Plan.
- 3.39 In the Landscape and Visual Sensitivity Study the sensitivity of individual site options was assessed using a five point sensitivity scale:
- High
 - Moderate High
 - Moderate
 - Low Moderate
 - Low
- 3.40 Sites and preferred areas considered to have a 'High' and 'Moderate High' sensitivity overall were considered to be of 'High' sensitivity in the site selection study (and colour-coded red); sites and preferred areas of 'Moderate' sensitivity were considered to be of 'Moderate' sensitivity in the site selection study (and colour-coded amber); and sites of 'Low Moderate' and 'Low' sensitivity overall were considered to be of 'Low' sensitivity in the site selection study (and colour-coded green).
- 3.41 The HCC Highway findings used a similar three tier 'Red-Amber-Green' scoring system to determine the potential impact of the site options on the local highway network. Therefore, sites which scored 'Green', 'Amber' and 'Red' in the HCC Highways Assessment were considered to be 'Low', 'Moderate' and 'High' in the site selection study, respectively. Sites that were unable to be assessed in the HCC Highways Study due to a lack of information were scored 'Grey'.

Table 3.1: Evaluation Framework for Sieve 3

3.42 The scoring key used in the evaluation framework is outlined below. As described above, the justification and reasoning behind the score given is detailed in the 'justification' section of each site/preferred area assessment proforma, thereby ensuring transparency and understanding of the decisions made. The completed proforma can be found in **Appendix 1**.

Key

Score	Description
Positive	There are positive impacts or benefits/enhancements.
Low	There are no/insignificant impact(s)/ issue(s).
Medium	There is a minor/moderate impact/issue which may be acceptable (and may involve mitigation).
High	There is a major impact/issue which may or may not be adequately mitigated.
Very High	There is an impact on a site or area of international or national significance within which working will only be permitted once an exception or alternative test in national policy have been met.

Criterion	Justification	Scoring	Data available
Airport Safeguarding Zones	Aircraft are vulnerable to birdstrikes, and 80% of all strikes occur on an aircraft's take-off or landing phase of flight, therefore highlighting the necessity for wildlife management on and within proximity of an airfield. Aerodrome administrators are responsible for administering bird activity with a 13km radius of the aerodrome. This is to mitigate the bird strike risk to aircraft and be aware of what species are in the local area.	N/A	Maps provided by HCC.
		Sites or areas located outside of an Airport Safeguarding Zone.	
		Sites or areas located within an Airport Safeguarding Zone.	
		N/A	
		N/A	

Criterion	Justification	Scoring	Data available
	Many types of development can attract birds, including large-flat roofed structures, landfill sites, gravel pit restoration schemes and nature reserves.		
Ancient Woodland	Ancient woodland is afforded protection through the NPPF, which notes that it is irreplaceable. Local planning authorities should refuse planning permission for development resulting in the loss or deterioration of ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.	<p>The potential for positive effects on ancient woodland is dependent on the exact nature and proposed design of the restoration of the minerals site, which may protect or increase the ecological connectivity of the woodland. However, this will not be known until the planning application stage.</p> <p>Sites or areas which are distant from ancient woodland.</p> <p>Sites or areas which lie in close proximity to ancient woodland.</p> <p>Sites or areas which are immediately adjacent to ancient woodland.</p> <p>Sites or areas that partly or entirely within ancient woodland.</p>	Natural England's Ancient Woodland inventory.
Aquifers	Aquifer designations are defined in the EU Water Framework Directive, and these designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also	<p>N/A</p> <p>Sites or areas which are outside of a designated aquifer.</p> <p>Sites or areas which are located</p>	Environment Agency Dataset.

Agenda Pack 116 of 454

Criterion	Justification	Scoring	Data available
	<p>their role in supporting water flows and wetland ecosystems. Mitigation measures and/or a precautionary approach to the operation of mineral workings can often be implemented. However, this is unlikely to be known until the planning application stage.</p>	<p>partly or entirely within a Secondary Aquifer.</p> <p>Sites or areas which are located partly or entirely within a Principal Aquifer.</p> <p>N/A</p>	
<p>BAP Priority Species or Habitats</p>	<p>The NPPF requires that, where possible, biodiversity loss, including direct loss of habitats and indirect losses through the fragmentation of green infrastructure networks, should be avoided. It is also necessary to consider sites that are not afforded statutory protection but are of local importance; especially those that provide ecological connectivity (including BAP habitats).</p>	<p>The restoration of minerals sites is increasingly adopting innovative practice and this could have positive effects on BAP Priority Species and Habitats for restoration to nature conservation. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which may not be known until the planning application stage.</p> <p>Sites or areas which are outside of areas known to include BAP Priority Species or Habitats.</p> <p>Sites or areas which are partly within areas known to include BAP Priority Species and Habitats.</p> <p>Sites or areas that are entirely within areas known to include BAP Priority Species and Habitats.</p> <p>N/A</p>	<p>GIS information from HCC. Any relevant information from the HRA.</p> <p>Information provided through the Call for Sites.</p>

Agenda Pack 117 of 454

Criterion	Justification	Scoring	Data available
BMV Land	Minerals extraction is not precluded on BMV. It has long been recognised that minerals working can be accommodated on best and most versatile (BMV) agricultural land, provided that high environmental standards are maintained, best practice soil handling techniques are adhered to and sites are well restored. Although, the potential to ensure these standards may not be known until the planning application stage.	<p>N/A</p> <p>Sites or areas not located within BMV Land or on lower grades (not 1, 2 or 3).</p> <p>Sites or areas located within higher grades of BMV land.</p> <p>N/A</p> <p>N/A</p>	National datasets
Cumulative effects	The NPPF states that local planning authorities should take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality. The 250m buffer used to assess the potential cumulative impacts of sites in close proximity is a precautionary distance which is often used in site selection studies of this kind. The NPPF states that local planning authorities must put in place policies that ensure high quality restoration and aftercare of mineral sites takes place, including for agriculture (safeguarding the long term potential of best and most versatile agricultural land and conserving soil resources), geodiversity, biodiversity, native woodland, the historic environment	<p>Opportunities exist for contributing to a landscape-scale approach to mineral extraction and restoration. For example, this could include contributions to identified green infrastructure networks or corridors, but will depend upon the information available regarding such initiatives.</p> <p>Sites or areas that are distant from existing mineral sites (greater than 250m away), or sites that are adjacent to or within close proximity to existing mineral sites but are distant from sensitive receptors and settlements.</p> <p>Sites or areas that are adjacent or in close proximity to existing mineral sites (less than 250m) and</p>	<p>Table 2: permitted sand and gravel extraction sites in Hertfordshire and Table 6: permitted chalk extraction sites in Hertfordshire from HCC's Local Aggregate Assessment 2015.</p> <p>Knowledge from HCC officers.</p>

Agenda Pack 118 of 454

Criterion	Justification	Scoring	Data available
	<p>and recreation.</p> <p>Opportunities may sometimes exist for the creation of positive cumulative effects by adopting a landscape-scale approach to mineral extraction and restoration - for example by creating or re-establishing wildlife corridors and connectivity of habitats; by creating water storage / flood alleviation features; and/or by creating aesthetically pleasing landscape features.</p>	<p>within close proximity to the same settlement or sensitive receptor(s).</p> <p>N/A</p> <p>N/A</p>	
Ecological status of water bodies	<p>The EU Water Framework Directive (2000/60/EC) looks at the ecological health of both groundwater and surface water with the aim of achieving 'good ecological status' by 2027, and to ensure that there is no deterioration from existing statuses.</p> <p>The operation of mineral extraction sites can have a number of different impacts on habitats and species either within the boundary of the extraction site or in proximity to the site. There may be the potential for water pollution e.g. through addition of dust and silts to waterbodies or through accidental spills or run-off of oil from machinery for example. Thereby affecting the ecological status of water bodies.</p> <p>Noise and vibration arising from</p>	<p>N/A</p> <p>Sites or areas which are not located near to a water body.</p> <p>Sites or areas located adjacent to a water body.</p> <p>Sites or areas located within the boundary of a water body.</p> <p>N/A</p>	<p>Visual analysis of Ordnance Survey (OS) base maps.</p> <p>Any relevant information from the HRA.</p>

Agenda Pack 119 of 454

Criterion	Justification	Scoring	Data available
	<p>sand and gravel extraction could also affect aquatic species, however, it should be possible to avoid or mitigate adverse impacts, for example by timing works to avoid critical periods (e.g. spawning or breeding periods), or preventing work from being undertaken at night to avoid disturbance to nocturnal species (e.g. otters).</p>		
Flood risk	<p>As stated in the PPG, local authorities should take a sequential approach to developing in areas at risk of flooding, giving preference to locating development in Flood Zone 1, followed by Flood Zone 2 then Flood Zone 3.</p> <p>Minerals working and processing (except sand & gravel working) are classed as less vulnerable, which means that they are potentially compatible with all flood zones except for Flood Zone 3b, the functional floodplain⁷. Sand and gravel workings are classed as water-compatible development and are potentially suitable for all flood zones including 3b, the functional floodplain. However, National Planning Practice Guidance⁸ also states that mineral workings should not increase flood risk elsewhere and need to be designed, worked and restored</p>	<p>Some sites, which may dewater, may hold the potential to store excess water in times of heavy rain, which would be seen as a positive in terms of preventing flood risk. However, this may not be known until the planning application stage.</p> <p>Sites or areas located within Flood Zones 1-3a, and sand and gravel sites located within 3b.</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>	GIS information from HCC.

Agenda Pack 120 of 454

Criterion	Justification	Scoring	Data available
	accordingly.		
Geodiversity	<p>National and locally important sites of geological/geomorphological interest (e.g. Local Geological Sites, formerly RIGS) should be protected under the NPPF. Although it is noted that quarrying often provides substantial opportunities for the creation of new geological exposures and for the creation of geodiversity trails.</p> <p>The NPPF requires planning authorities to aim to prevent harm to geological conservation interests through the use of criteria based policies, including minimising impacts on geodiversity. Mineral sites can potentially contribute to geodiversity by preserving and conserving geological features/landscapes that contribute towards the link between people, landscape and their culture. However, due to the methods of extraction and processing, this is more likely at less intensive sites (e.g. building stone) than aggregate sites.</p>	<p>The site provides one or more opportunities for the creation of new geological exposures and /or for the creation of geodiversity trails.</p> <p>Sites or areas that are either distant from geological conservation sites, or which hold opportunities to incorporate, enhance or preserve important geological features within the site.</p> <p>Sites or areas that are within or adjacent to national sites of geological interest (SSSI) or Local Geological Sites (LGS), other than those which are classed as 'finite' sites.</p> <p>Sites or areas that are within geological or geomorphological SSSIs which have been classified as 'finite' sites.</p> <p>N/A</p>	<p>GIS information from HCC.</p> <p>Information provided through the Call for Sites.</p>
Green Belt	NPPF states that the Government attaches great importance to Green Belts, noting that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the	<p>N/A</p> <p>Sites or areas located outside of Green Belt and/or site located within Green Belt but do not conflict with the purposes for its</p>	<p>GIS information from HCC; check the purposes for its designation does not conflict with mineral working.</p>

Agenda Pack 121 of 454

Criterion	Justification	Scoring	Data available
	essential characteristics of Green Belts are their openness and their permanence. The NPPF lists mineral extraction as a form of development which is not inappropriate in Green Belt providing that it preserves the openness of the Green Belt and does not conflict with the purposes of including land in Green Belt.	<p>designation.</p> <p>Sites or areas located within Green Belt which conflict with the purposes for its designation.</p> <p>N/A</p> <p>N/A</p>	
Groundwater vulnerability	The NPPF states that local planning authorities should set out environmental criteria against which planning applications will be assessed so as to ensure that permitted operations do not have unacceptable adverse impacts on the natural environment, including from impacts on the flow and quantity of surface and groundwater and migration of contamination from sites. The extent to which a minerals extraction site will affect groundwater on a potential site depends on the type of mineral worked, site design and characteristics, and the geological conditions. Mineral sites that are in Source Protection Zone (SPZ) 1 could potentially lead to loss of contaminants or accidental pollution incidents. Potential for adverse effects on water quality will also be assessed at the	<p>N/A</p> <p>Sites or areas located within Source Protection Zone 4 or outside of all Source Protection Zones.</p> <p>Sites or areas located within Source Protection Zones 2 and 3.</p> <p>Sites or areas located within Source Protection Zone 1.</p> <p>N/A</p>	GIS information from HCC.

Agenda Pack 122 of 454

Criterion	Justification	Scoring	Data available
	planning application stage.		
Heritage designations	<p>Heritage designations are protected by the NPPF. These include Scheduled Monuments, Listed Buildings, Conservation Areas, and Registered Historic Parks and Gardens. Such designations may be directly affected by minerals workings through their removal or damage, or by affecting their setting.</p> <p>Whilst the setting of heritage assets can be a critical part of their significance, it is not possible to consider this at the strategic planning stage. This will be an important consideration at the planning application stage.</p> <p>Working of minerals can lead to the investigation and recording of archaeological deposits, increasing knowledge and understanding. In addition, the restoration of a minerals site may improve the setting of a heritage asset. However it is not practicable to consider such issues at the strategic planning stage, but could be important issues at the planning application stage.</p>	<p>N/A</p> <p>Sites or areas which do not overlap with heritage designations.</p> <p>Sites of areas which partly overlap or are immediately adjacent to heritage designations.</p> <p>Sites or areas that contain heritage designations.</p> <p>Sites or areas that are partly or entirely within an international and/or national heritage designation.</p>	<p>GIS national datasets from Historic England.</p> <p>GIS information from HCC and district authorities.</p>
International and national ecological designations	International and national ecological designations are protected through European and	The potential for positive effects on ecological designations is dependent on the exact nature and	GIS national datasets from Natural England's MAGIC database.

Agenda Pack 123 of 454

Criterion	Justification	Scoring	Data available
	<p>National legislation. Such sites include Ramsar sites, Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs).</p> <p>These nature conservation designations are given the highest level of protection and therefore should be protected against harm and in general mineral extraction within them should be avoided. However, it is recognised that in occasional situations, minerals development can have positive effects on these designations. For example, through the provision of flood alleviation or the creation of specific habitats.</p>	<p>proposed design of the restoration of the minerals site, which may not be known until the planning application stage.</p> <p>Sites or areas which are distant from international and national ecological designations.</p> <p>Sites or areas which lie in close proximity to international and national ecological designations.</p> <p>Sites or areas which are immediately adjacent to international and/or national ecological designations.</p> <p>Sites or areas that are partly or entirely within international and/or national ecological designations.</p>	<p>GIS information from HCC.</p> <p>Information provided through the Call for Sites.</p>
Land ownership	<p>The extent to which options put forward by industry are within their control can have a bearing on the likelihood sites will be available during the emerging MLP plan period.</p>	<p>N/A</p> <p>Sites in the control of the industry.</p> <p>Sites not in the control of the industry.</p> <p>N/A</p> <p>N/A</p>	<p>Information provided through the Call for Sites.</p>
Landscape designations	<p>Landscape Designations (e.g. AONB) are protected by the NPPF. Both national and local landscape</p>	<p>The restoration of minerals sites is increasingly adopting innovative practice and this could have</p>	<p>GIS national datasets from Natural England's MAGIC database.</p>

Agenda Pack 124 of 454

Criterion	Justification	Scoring	Data available
	<p>designations may be affected by the development of mineral workings. Landscape designations in poor condition could be enhanced through high quality restoration. However, this will not be able to be determined until the planning application stage.</p>	<p>positive effects on landscape designations. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which may not be known until the planning application stage.</p> <p>Sites which are outside of landscape designations.</p> <p>Sites which are partly within or immediately adjacent to landscape designations.</p> <p>Sites that are entirely within landscape designations.</p> <p>Sites or areas that are partly or entirely within international and/or national landscape designations.</p>	<p>GIS information from HCC.</p> <p>Information provided through the Call for Sites.</p>
<p>Local Nature Reserves and/or Local Wildlife Sites</p>	<p>Locally important sites of nature conservation should be protected under the NPPF. Where possible, biodiversity loss, including direct loss of habitats and indirect losses through the fragmentation of green infrastructure networks, should be avoided. It is also necessary to consider sites that are not afforded statutory protection but are of local importance; especially those that provide ecological connectivity. However, the level of detail to aid understanding of potential impacts</p>	<p>The restoration of minerals sites is increasingly adopting innovative practice and this could have positive effects on local nature reserves for restoration to nature conservation. However, this would be very dependent on the exact nature and proposed design of the restoration of the minerals site, which may not be known until the planning application stage.</p> <p>Sites or areas which are outside of Local Nature Reserves and/or Local</p>	<p>GIS information from HCC. Any relevant information from the HRA.</p> <p>Information provided through the Call for Sites.</p>

Agenda Pack 125 of 454

Criterion	Justification	Scoring	Data available
	on Local Nature Reserves and/or Local Wildlife Sites would not be known until the planning application stage.	<p>Wildlife Sites.</p> <p>Sites or areas which are partly within or immediately adjacent to Local Nature Reserves and/or Local Wildlife Sites.</p> <p>Sites or areas that are entirely within Local Nature Reserves and/or Local Wildlife Sites.</p> <p>N/A</p>	
Proximity of allocated residential or built development	There could be potential for land use conflict where minerals sites are within or in close proximity to areas allocated for future residential or built development, as mineral resources could be sterilised or mineral operations could conflict with the neighbouring sensitive land uses. Mineral sterilisation could be avoided via prior extraction. Conflict between mineral operations and sensitive land uses could be mitigated by the use of stand-off distances, noise bunds and visual screening. However, the potential for this to occur would not be known until the planning application stage for either land use.	<p>N/A</p> <p>Sites or areas are located away from planned built development.</p> <p>Sites or areas are located in close proximity to or adjacent to planned built development.</p> <p>Sites or areas are located within the boundary of planned built development.</p> <p>N/A</p>	<p>Data on housing allocations from HCC.</p> <p>Visual analysis of relevant Local Plan maps for areas planned for future residential development, however, the certainty of these development locations depends on the status of the Local Plan in question, i.e. how close to Adoption it is.</p>
Recreation	The NPPF requires that planning decisions should guard against the unnecessary loss of valued social,	Sites or areas that have the potential for major enhancements for existing Public Rights of Way,	GIS information from HCC, plus analysis of OS base map for other types of leisure/ recreational

Agenda Pack 126 of 454

Criterion	Justification	Scoring	Data available
	recreational and cultural facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs. Sites could have effects on the amenity of users of Public Rights of Way, open spaces (e.g. common land, access land, and community forests) and recreational facilities if they are in close proximity. There may also be opportunities for enhancement to recreational facilities during the development of particular mineral sites, as set out in the NPPF. In addition, there may be opportunities to create new recreation areas/open spaces during the restoration of mineral sites.	<p>open spaces or recreational facilities and/or the development of new Public Rights of Way, open spaces or recreational facilities.</p> <p>Sites or areas that have the potential for minor enhancements for existing Public Rights of Way, open spaces or recreational facilities, or are located away from Public Rights of Way, open spaces or recreational facilities.</p> <p>Sites or areas that are located within close proximity of Public Rights of Way, open spaces or recreational facilities.</p> <p>Sites or areas that are adjacent to or are located within the boundary of Public Rights of Way, open spaces or recreational facilities.</p> <p>N/A</p>	facilities and open spaces. Analysis of Sustrans Maps will be completed for cycle routes.
Restoration	The NPPF states that local planning authorities must put in place policies that ensure high quality restoration and aftercare of mineral sites takes place, including for agriculture (safeguarding the long term potential of best and most	<p>N/A</p> <p>Sites or areas where there are clear opportunities for high quality restoration and aftercare.</p>	Information provided through the Call for Sites.

Agenda Pack 127 of 454

Criterion	Justification	Scoring	Data available
	<p>versatile agricultural land and conserving soil resources), geodiversity, biodiversity, native woodland, the historic environment and recreation.</p> <p>Appropriate restoration (i.e. the formation of final landform contours and replacement of soils) and reclamation (i.e. making the site suitable for an appropriate after-use), has always been an important aspect of mineral planning and is specified by conditions attached to most modern mineral permissions. Restoration should take place at the earliest opportunity, during a phased extraction or if appropriate upon completion of quarrying.</p>	<p>Sites or areas where there are some opportunities for high quality restoration and aftercare.</p> <p>Sites or areas where there is no prospect of restoration and reclamation to an appropriate future land use.</p> <p>N/A</p>	
Sensitive land uses	<p>Minerals sites could have effects on the health and amenity of local residents and communities from dust, noise and vibration. The NPPF is clear that MPAs should ensure that unavoidable noise, dust and particle emissions and any blasting vibrations are controlled and mitigated or removed at source. Past (e.g. Minerals Policy Statement 2) and current guidance (e.g. NPPF) state that residential properties and other sensitive uses can be affected by dust up to 1km from the source, and that concerns are most likely to be experienced</p>	<p>N/A</p> <p>Sites or areas are distant from sensitive land uses.</p> <p>Sites or areas are in close proximity to sensitive land uses.</p> <p>Sites or areas are located adjacent to or within the boundary of sensitive land uses.</p> <p>N/A</p>	Visual analysis of Ordnance Survey (OS) base maps.

Agenda Pack 128 of 454

Criterion	Justification	Scoring	Data available
	near to sources, generally within 100m depending on site characteristics and in the absence of appropriate mitigation.		
Sustainable transport	<p>The NPPF states that plans and decisions should ensure developments that generate significant movements can maximise the use of sustainable transport modes.</p> <p>The majority of minerals sites will involve road transportation with some involving more movements than others. However, proximity to rail lines/depots/sidings, rivers/canals or wharves could provide opportunities to explore more sustainable modes of transporting minerals.</p>	<p>N/A</p> <p>Sites or areas with direct access to the rail network or navigable waterway network.</p> <p>Sites or areas with economically viable access to the rail network or navigable waterway network.</p> <p>Sites or areas distant from the rail network or navigable waterway network.</p> <p>N/A</p>	<p>National datasets and OS base map.</p> <p>GIS information from HCC.</p> <p>Information provided through the Call for Sites.</p>
Sustainable transport and pollution to the environment (dust, air, water)	Environmental receptors, including humans, are protected from pollution through a number of planning and environmental regulations. Mineral workings have the potential to result to pollution of water courses, aquifers and the air. However, there are strict environmental controls in place to prevent this occurring at the site level. Potential for adverse effects on surface water quality will be assessed at the planning	<p>N/A</p> <p>Sites or areas where associated traffic would not be likely to travel through an Air Quality Management Area, or are located adjacent to a strategic road network.</p> <p>Sites or areas where associated</p>	<p>Visual analysis of Ordnance Survey (OS) base maps.</p> <p>GIS information from HCC.</p> <p>Information provided through the Call for Sites.</p>

Agenda Pack 129 of 454

Criterion	Justification	Scoring	Data available
	<p>application stage.</p> <p>Proposals for all types of minerals sites could contribute to increasing air pollution with regards to minerals transportation by road, as well as any air pollution associated with the operation of the sites and processes used such as dust from blasting, crushing and processing.</p> <p>The further vehicles transporting minerals have to travel along local roads (i.e. not on the primary road network), the higher the potential for more localised air pollution as they are likely to travel more slowly on local roads. In addition, if the mineral site is within, or vehicles are travelling through, AQMAs where existing air pollution issues have been identified, there is more potential for negative effects on air quality.</p>	<p>traffic would be likely to travel through an Air Quality Management Area, or are in close proximity to a strategic road network.</p> <p>Sites or areas located within an Air Quality Management Area, or not in close proximity to a strategic road network.</p> <p>N/A</p>	

4 Site Selection Methodology for Brick Clay

- 4.1 NPPF paragraph 146 requires MPAs to plan for at least 25 years' supply of brick clay, through the provision of a stock of permitted reserves sufficient to support the level of actual and proposed investment required for new and existing plant and the maintenance and improvement of existing plant and equipment. The extant Minerals Local Plan was produced before the introduction of the NPPF, and had not planned for a 25 year stock of clay reserves. The Council therefore has no previous site selection methodology for brick clay.
- 4.2 The location of the brick clay resource is provided by the BGS mineral resource information for development plans. No other detailed information is known to exist, within the public domain. This is not least because of the specialist nature of the bricks produced in this area and the relatively unusual nature of the Reading Formation and Clay-with-Flints resources which are used. These factors dictate different methods of extraction and processing, compared with those used in much larger brick pits (for example in neighbouring Bedfordshire) where the resources tend to be thicker and more consistent, and they also influence which parts of the resource can be utilised. There is one remaining brick clay works in Hertfordshire: Bovingdon Bricks.
- 4.3 With the geology highly variable and the brick clay production very specialist in its nature, a detailed assessment such as that proposed for sand and gravel is not possible for brick clay for the purpose of the MLP. As an industrial mineral, the full hierarchy of Specific Sites, Preferred Areas and Areas of Search is not applicable to Brick Clay; MPAs are simply required to provide a stock of permitted reserves of at least 25 years. However, in view of the lack of sufficiently detailed geological information to identify an appropriate area more precisely, it was proposed during the consultation on the methodology that the whole resource will be identified as a Mineral Safeguarding Area, and a policy for clay included within the Minerals Local Plan.
- 4.4 However, two specific sites for brick clay have been put forward during the Call for Sites process, therefore these two sites (MLPCS013 and MLPCS020) have been subject to the Sieve 3 detailed site assessment (described in Chapter 3).

5 Mineral Safeguarding

- 5.1 Mineral Safeguarding Areas (MSAs) and Mineral Consultation Areas (MCAs) are complementary aspects of ensuring that important mineral resources remain available for use by future generations, rather than being needlessly ‘sterilised’ (rendered unavailable for extraction) by other forms of development.
- 5.2 The reasoning behind this, as noted in paragraph 2.3.1 of the British Geological Survey (BGS) report ‘Mineral safeguarding in England: good practice advice’¹² is that mineral resources are finite and can only be worked where they naturally occur.
- 5.3 Safeguarding of selected mineral resources also helps to ensure that the planning system retains the flexibility to identify potential areas for future extraction which would have the least impact on the environment, if they were ever worked, whilst not creating a presumption that such working will necessarily occur.
- 5.4 Safeguarding is therefore a specific requirement identified in paragraph 143 of the NPPF which states that, in preparing Local Plans, local planning authorities should (inter alia): “*define Minerals Safeguarding Areas and define Minerals Consultation Areas based on these*”. However, it should be noted that whilst MCAs should be based on the MSAs, the two areas need not coincide completely.
- 5.5 The PPG defines both MSAs and MCAs as:
- **Minerals Safeguarding Area** – an area designated by a MPA which covers known deposits of minerals which are desired to be kept safeguarded from unnecessary sterilisation by non-mineral development.
 - **Minerals Consultation Area** – a geographical area, based on a Mineral Safeguarding Area, where the district or borough council should consult the MPA for any proposals for non-minerals development.
- 5.6 In addition, paragraph 143 makes clear that MPAs should also safeguard:
- existing, planned and potential rail heads, rail links to quarries, wharfage and associated storage, handling and processing facilities for the bulk transport by rail, sea or inland waterways of minerals, including recycled, secondary and marine-dredged materials; and
 - existing, planned and potential sites for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material.
- 5.7 HCC already has an adopted Supplementary Planning Document (SPD) relating to MCAs, which will be reviewed as part of the Minerals Local Plan Review and consolidated into the Plan itself. Whilst the current SPD identifies MCAs as a statutory consultation mechanism, it does not explicitly identify MSAs, as required by the NPPF. The difference may appear to be a subtle one (since MCAs are now required to be based on MSAs), but it is nevertheless important because MCAs alone do not explicitly safeguard the resources.
- 5.8 MSAs are the means by which the resource outcrops affected by mineral safeguarding policies are meant to be identified in Minerals Local Plans; whereas MCAs are intended to show the areas within which local district councils (in two-tier authorities) should consult with the MPAs on relevant development proposals (which proposals that fall into this category are defined through policy). Whilst MSA and MCA boundaries can be coincident, they need not be: MSAs will usually cover the whole of a particular resource outcrop (unless that outcrop is very extensive and largely unconstrained, in which case only certain parts of it might need to be safeguarded); whereas MCAs may:

¹² *Mineral safeguarding in England: good practice advice*. Wrighton et. al., 2011.

- extend beyond the minerals resource to incorporate a 'buffer' beyond the outcrop boundary, to protect the resource from sterilisation by proximal development;
- exclude areas of the MSA that have already been sterilised e.g. residential areas and therefore do not require consultation; and/or,
- exclude certain types of development that would not normally bring about the sterilisation of a resource through use of an exceptions policy. Such development would include householder extension or advertisement applications for example.

Methodology

- 5.9 The basic procedures for minerals safeguarding are clearly set out in the BGS guidance referred to above. This is explicitly referenced in the online PPG (most recently revised in March 2014) and is therefore a formal expectation of national policy.
- 5.10 The procedures comprise the following sequential steps (note that the guidance currently refers to Core Strategies and Development Plan Documents, but these terms have been updated below to refer to Local Plans in accordance with the requirements of the National Planning Policy Framework and the Town and Country Planning (Local Planning) (England) Regulations 2012):
- Step 1: Identify the best geological and mineral resource information.
 - Step 2: Decide which mineral resources to safeguard and the physical extent of MSAs.
 - Step 3: Undertake Consultation on MSAs.
 - Step 4: Decide on the approach to safeguarding in the Local Plan.
 - Step 5: Include Development Management Policies in the Local Plan.
 - Step 6: Include safeguarding in District-level Local Plans.
 - Step 7: Include mineral assessments in the local list of information requirements.
- 5.11 Of these, Step 1 is effectively covered by the same work that has been undertaken during the sand and gravel site selection procedure and the initial resource identification for brick clay, and utilised the same ('best available') mineral resource information. As explained in Chapter 3, this comprised the BGS digital resource information together with relevant material (including borehole data) from the Industrial Mineral Assessment Unit (IMAU) reports and any other readily available information which was able to refine the BGS maps, following the advice set out in section 4.1 of the BGS guidance). In practice, this primarily involved excluding areas of resource which have already been worked.
- 5.12 The starting point for Step 2, as agreed with HCC, was that the MSAs should cover only sand and gravel and brick clay resources. The physical extent of those resources has been based on the detailed information identified in Step 1. In accordance with paragraphs 4.2.9 to 4.2.11 of the BGS guidance, the MSAs cover the whole of the mapped resource areas and do NOT exclude areas which are already subject to other designations or those which are already sterilised by existing urban development. Rather, they are defined purely by the physical boundaries of the resource itself (including areas concealed beneath overburden, where this is shallow enough to permit economic extraction of the mineral) together with a suggested 'buffer' of 100 metres.
- 5.13 The Step 3 consultation will form part of the public consultation scheduled for Summer 2017. However, feedback from the Interested Parties Workshop (19th March 2015) has helped inform the site selection methodologies, which has also contributed usefully to the consultation required. In particular the consultation scheduled for Summer 2017 will contribute to final decisions regarding the extent of economically viable resources; the width of buffer zones applied to MSAs; and the extent to which MCA boundaries might justifiably differ from those of the MSAs (e.g. to exclude areas of existing built development).
- 5.14 Steps 4 to 6, relating to the development of corresponding policies etc. are beyond the scope of this study, although they have been informed by the Interested Parties Workshop and will also be informed by the wider consultation process.

- 5.15 Step 7, relating to the determination of planning applications within MSAs, is clearly beyond the scope of this site selection study.

Proposed MSAs and MCAs

- 5.16 **Figure 5.1** shows the extent of the sand and gravel resource within Hertfordshire and **Figure 5.2** shows the proposed MSA for sand and gravel. **Figure 5.3** shows the brick clay resource within Hertfordshire and **Figure 5.4** shows the proposed MSA for brick clay. Note that the proposed MCAs for sand and gravel and brick clay are the same as the MSAs shown in **Figure 5.2** and **Figure 5.4**.¹³

¹³ Both the defined MSA and the defined MCA include a 100m buffer area for sand and gravel and brick clay.

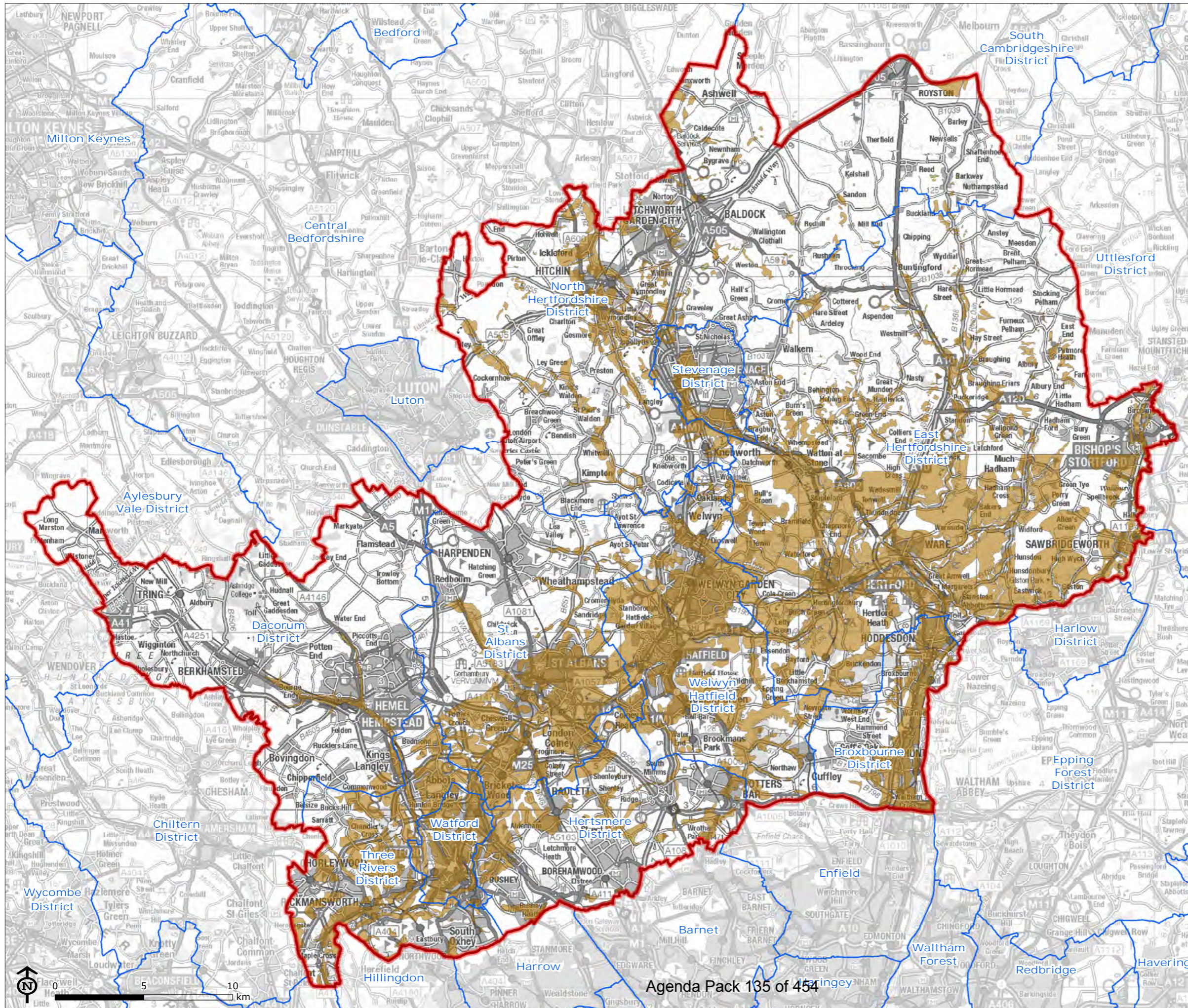


Figure 5.1: Sand & Gravel Resources in Hertfordshire

- Hertfordshire County boundary
- District boundary
- *Sand & gravel resources

* Derived from 1:50,000 scale BGS digital data under Licence 2000/035, British Geological Survey © NERC'

Map Scale @ A3: 1:210,000



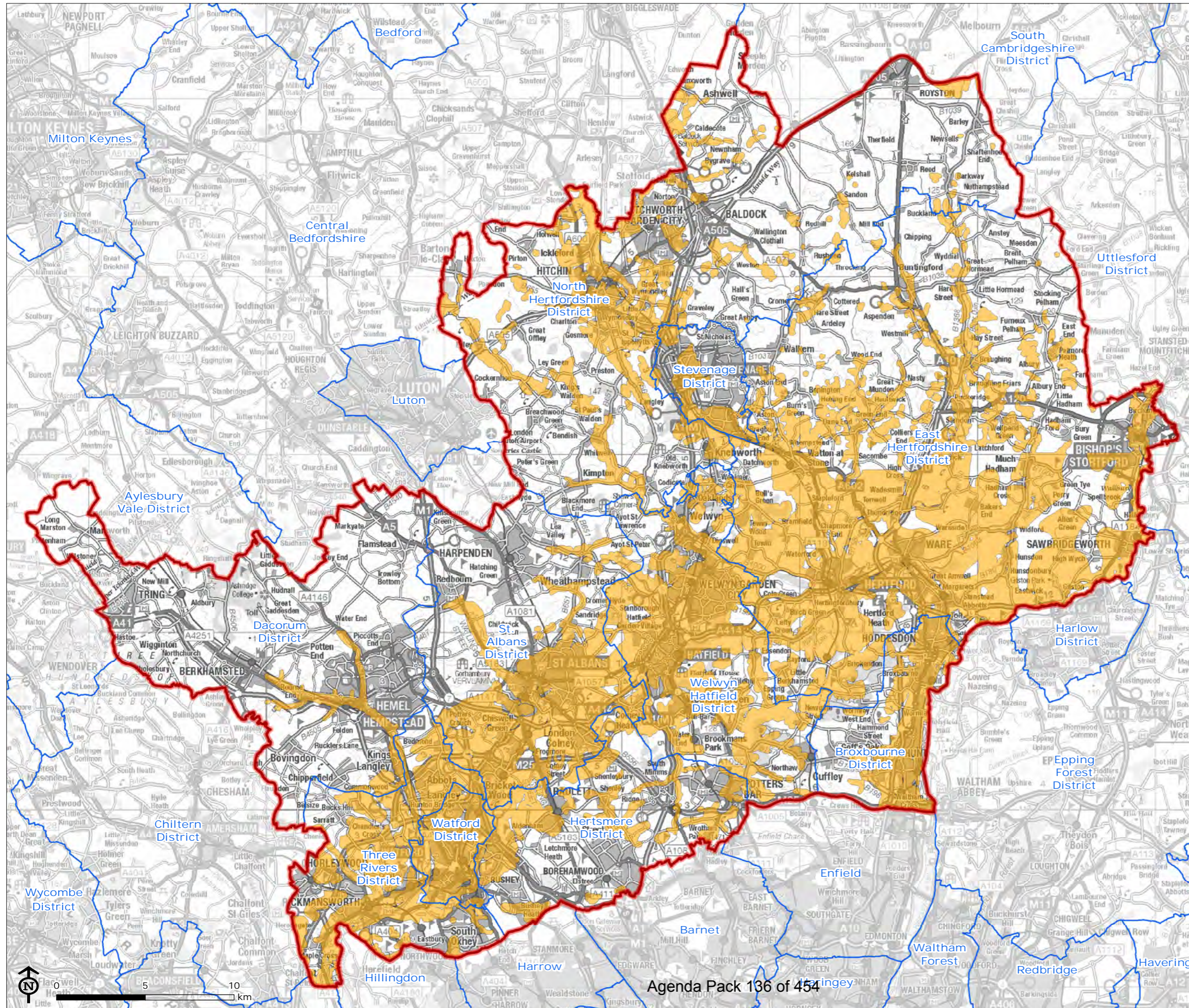


Figure 5.2: Proposed Mineral Safeguarding Areas for Sand & Gravel Resources in Hertfordshire

- Hertfordshire County boundary
- District boundary
- * Proposed Mineral Safeguarding Area (Sand & Gravel), includes 100m buffer

*Derived from 1:50,000 scale BGS digital data under Licence 2000/035, British Geological Survey © NERC

Map Scale @ A3: 1:210,000



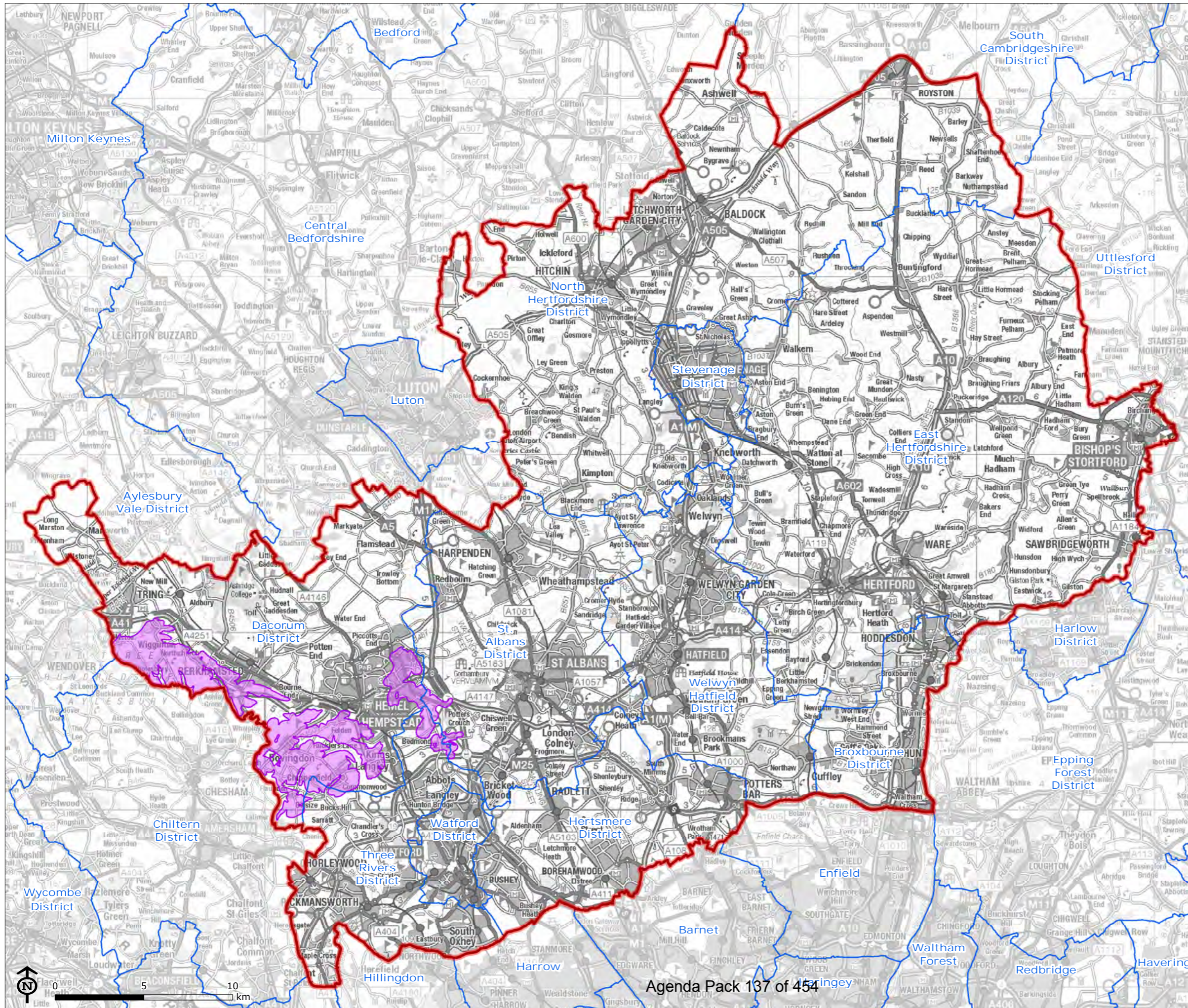


Figure 5.3: Brick Clay Resources in Hertfordshire

- Hertfordshire County boundary
- District boundary
- *Brick clay resources

*Derived from 1:50,000 scale BGS digital data under Licence 2000/035, British Geological Survey © NERC'

Map Scale @ A3: 1:210,000



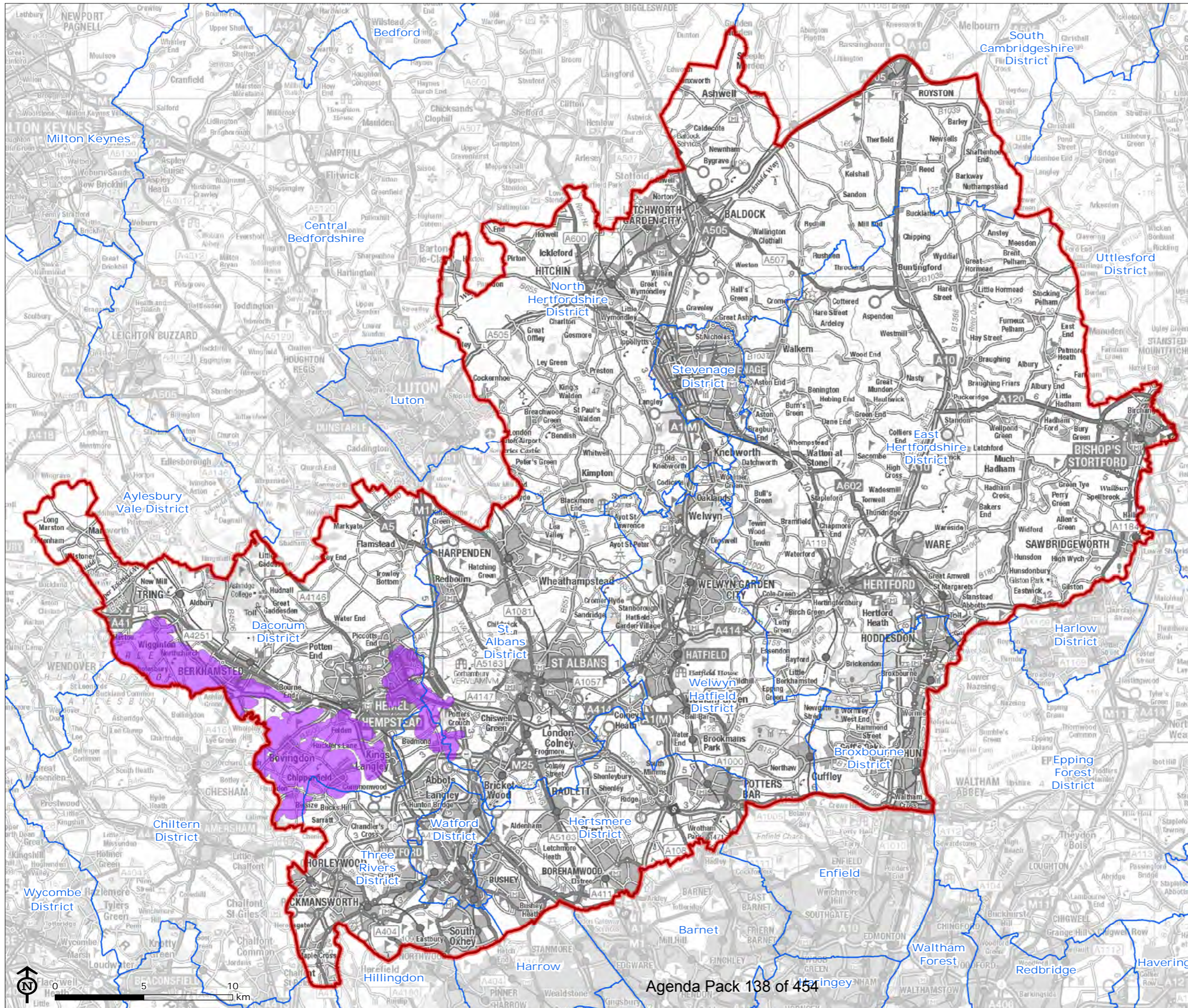


Figure 5.4: Proposed Mineral Safeguarding Areas for Brick Clay Resources in Hertfordshire

- Hertfordshire County boundary
- District boundary
- * Proposed Mineral Safeguarding Area (Brick Clay), includes 100m buffer

*Derived from 1:50,000 scale BGS digital data under Licence 2000/035, British Geological Survey © NERC

Map Scale @ A3: 1:210,000



6 Site and Preferred Area Assessment Findings

- 6.1 HCC received 19 submissions from landowners, agents or minerals operators during the 2016 Call for Sites exercise (proposing 18 sand and gravel sites and one brick clay site) and an additional brick clay site was subsequently submitted. In addition, HCC previously defined three preferred areas in the adopted MLP within which it had been considered that there was potential for defining further sand and gravel extraction sites if required. **Table 6.1** sets out the sites submitted and **Figure 6.1** illustrates their location within the County, and **Figure 6.2** provides a closer view of individual site boundaries.
- 6.2 All 20 of the sites were put through the Sieve 1, 2 and 3 assessments described in Chapter 3. All three of the preferred areas were put through Sieve 1 and 2 and two of the preferred areas (1 and 2) progressed to Sieve 3. The detailed results of the sites and preferred area assessments are presented in **Appendix 1**.

Table 6.1: List of Sites put forward through the Call for Sites

Site ID	Site Name	Mineral to Extract
MLPCS001	Land at Cromer Hyde Farm	Sand and Gravel
MLPCS002	Land at Salisbury Hall	Sand and Gravel
MLPCS003	Land at Ware Park	Sand and Gravel
MLPCS004	Land at Pynesfield	Sand and Gravel
MLPCS005 ¹⁴	Nashe's and Fairfold's Farm	Sand and Gravel
MLPCS006	Hatfield Aerodrome	Sand and Gravel
MLPCS007	Barwick	Sand and Gravel
MLPCS008	Hatfield – Furze Field	Sand and Gravel
MLPCS009	Hatfield Quarry – Land adjoining Coopers Green Lane	Sand and Gravel
MLPCS010	The Briggens Estate	Sand and Gravel
MLPCS011	Water Hall Quarry – Farm Fields Area	Sand and Gravel
MLPCS012	Water Hall Quarry – Broad Green Area	Sand and Gravel
MLPCS013	Harry's Field	Brick Clay
MLPCS014	Water Hall Quarry – Bunkers Hill South Area	Sand and Gravel
MLPCS015	Plashes Farm	Sand and Gravel
MLPCS016	Water Hall Quarry – Howe Green Area	Sand and Gravel

¹⁴ Site MLPCS005 has since been withdrawn and therefore has not been recommended as a potential site for inclusion in the plan.

Site ID	Site Name	Mineral to Extract
MLPCS017	Robins Nest Hill	Sand and Gravel
MLPCS018	Southfield Wood East	Sand and Gravel
MLPCS019	Pipers End	Sand and Gravel
MLPCS020	Roundhill Wood	Brick Clay
Preferred Areas		
1	Land close to the existing Hatfield Quarry	Sand and Gravel
2	Land to the north of the existing Rickneys Quarry	Sand and Gravel
3	Land to the south-east of the existing Tyttenhanger Quarry	Sand and Gravel

Sieve 1 – Major Constraints

- 6.3 As set out in **Section 3**, Sieve 1 sought to screen out sites and preferred areas that were known to affect absolute constraints to future minerals working. None of the 20 sites were screened out at this stage.
- 6.4 Details of the sites' Sieve 1 assessments can be found in the proforma in **Appendix 1**.

Sieve 2 – Resource Assessment

- 6.5 Similar to Sieve 1, no sites were screened out at Sieve 2.
- 6.6 As can be seen from the results of the Sieve 2 assessment (**Appendix 1**), ten of the twenty sites put forward for consideration (including both brick clay sites) were considered to have adequately demonstrated economic viability and deliverability during the Plan period. All ten of these sites were put forward by mineral operators/brick manufacturers:
- MLPCS002
 - MLPCS003
 - MLPCS004
 - MLPCS006
 - MLPCS008
 - MLPCS009
 - MLPCS010
 - MLPCS012
 - MLPCS013
 - MLPCS020
- 6.7 The remaining ten sites were considered not to have sufficient information to determine their economic viability and deliverability:
- MLPCS001
 - MLPCS005





- MLPCS007
- MLPCS011
- MLPCS014
- MLPCS015
- MLPCS016
- MLPCS017
- MLPCS018
- MLPCS019

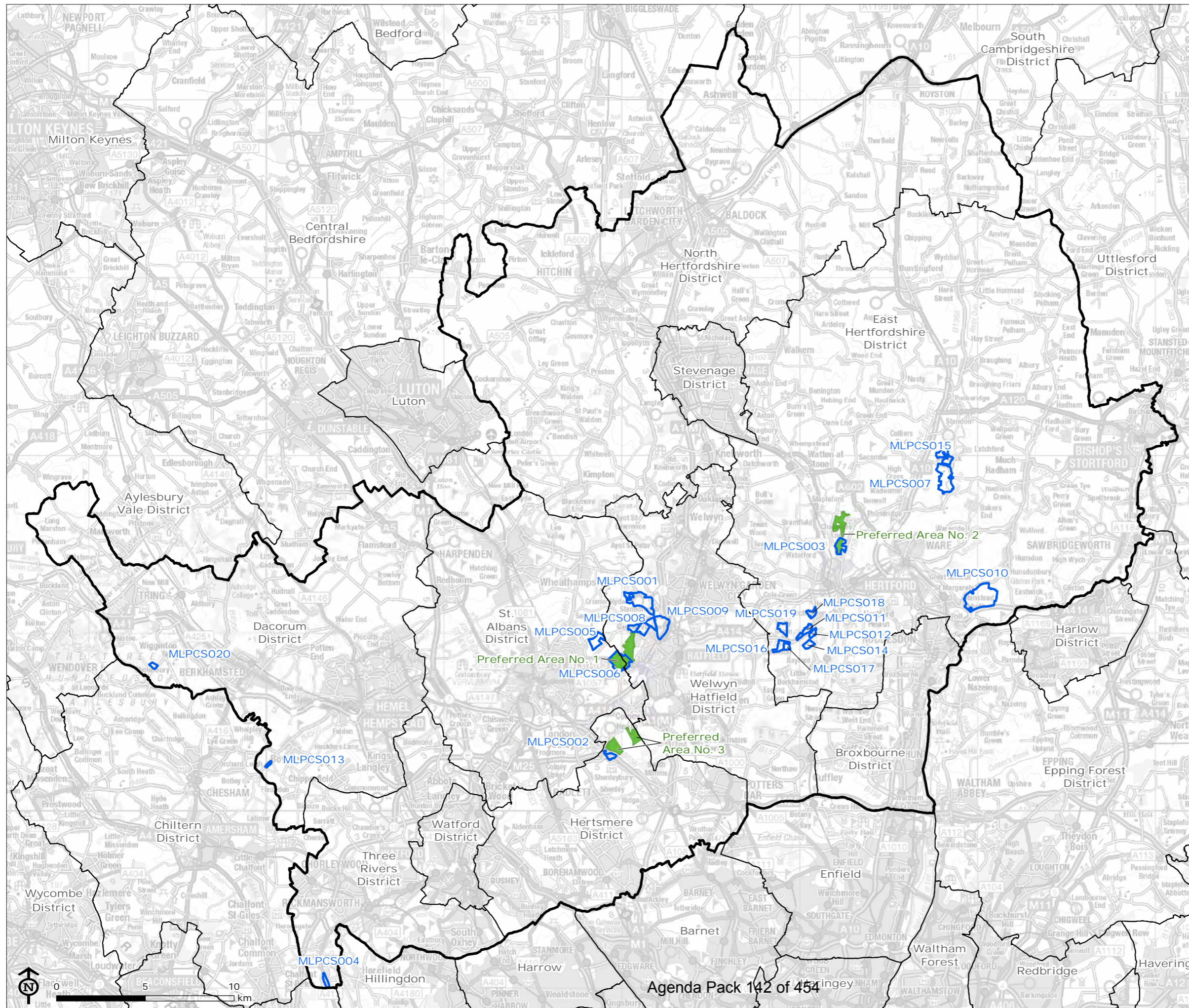
- 6.8 Without the necessary information to disregard any of these sites as unviable or undeliverable, all 20 sites were taken through to Sieve 3, to consider their suitability against the environmental and social criteria in Sieve 3 (see below).
- 6.9 All three of the preferred areas were put through Sieve 1 and 2 and two of the preferred areas (1 and 2) progressed to Sieve 3. Preferred area 3 was not assessed at Sieve 3 due to the fact that the area has now been worked through extensions to the neighbouring Tyttenhanger Quarry. Consequently, Preferred area 3 can no longer be considered as a preferred area.

Sieve 3 – Detailed Site Assessments

- 6.10 **Table 6.2** and **6.3** provide a visual summary of the suitability of each of the 20 sites against detailed site assessment criteria (with the sand and gravel sites and preferred areas presented in **Table 6.2** and brick clay sites presented in **Table 6.3**). **Table 6.4** and **6.5** then provide a discursive summary of the potential effects of the sand and gravel sites, brick clay sites and sand and gravel preferred areas respectively taking into account the assessments set out in **Appendix 1**, HCC Highways comments (**Appendix 2**) and the findings of the Landscape and Visual Sensitivity Study, Sustainability Appraisal and Habitats Regulations Assessments.
- 6.11 From **Table 6.2** and **6.3** it can be seen that a number of the assessment criteria are unlikely to be affected by minerals development at any of the 20 promoted sites or two preferred areas, as shown by the green 'positive' or 'low' impact scores, e.g. flood risk, geodiversity, Green Belt and designated landscapes. In addition, many of the criteria may only have a medium or low impact, which should be able to be reduced or mitigated through mitigation measures incorporated into the development proposal and implemented during operation of the site. While some potentially high or very high impacts have been identified for all of the site options, these may also be able to be mitigated either through readjustment of site boundaries and/or mitigation measures implemented during design and operation (e.g. diversion of Public Right of Ways (PRoWs)). However, increasing the use of sustainable transport is unlikely to be improved through development of any of the potential mineral sites.
- 6.12 Following **Table 6.4** and **6.5**, a further summary table (**Table 6.6**) shows the potential sand and gravel sites and brick clay sites and sand and gravel preferred areas ranked in order of the number of very high, then high, then medium impacts.

Figure 6.1: Location of Sites in County Context





-  Hertfordshire County boundary
-  District boundary
-  Mineral site
-  Preferred area

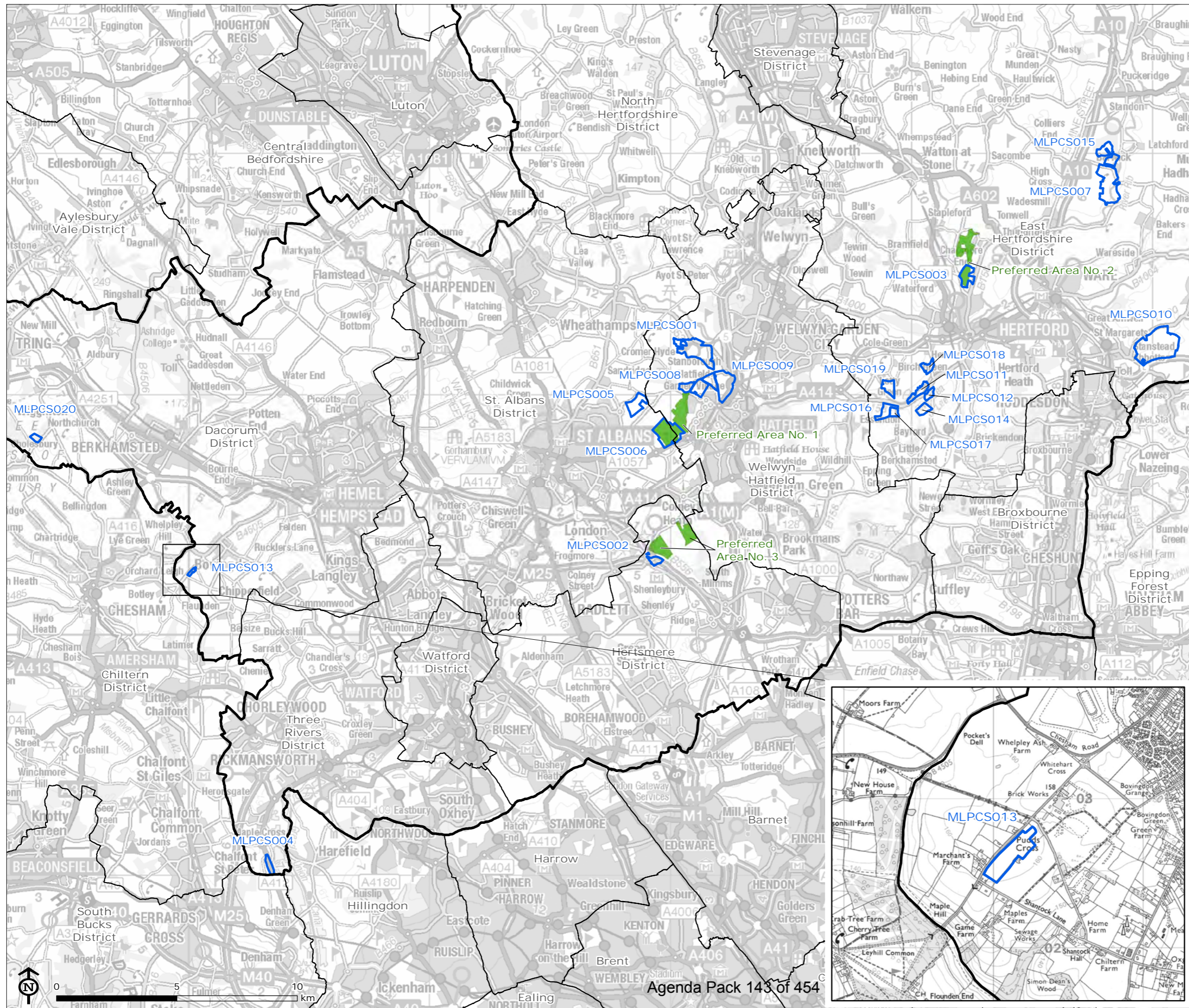


Map Scale @ A3: 1:210,000



Figure 6.2: Location of Sites

-  Hertfordshire County boundary
-  District boundary
-  Mineral site
-  Preferred area



Map Scale @ A3: 1:155,000



Table 6.2 : Summary of the suitability of each of the sand and gravel sites and preferred areas against detailed site assessment criteria

Site ID	Assessment Criteria																					
	Airport Safeguarding Zones	Ancient Woodland	Aquifers	BAP Priority Species or Habitats	BMV Land	Cumulative Effects	Ecological Status of Water Bodies	Flood Risk	Geodiversity	Green Belt	Groundwater Vulnerability	Heritage Designations	International and National Ecological Designations	Land Ownership	Landscape Designations	Local Nature Reserves and Local Wildlife Sites	Proximity of allocated residential or built development	Recreation	Restoration	Sensitive Land Uses	Sustainable transport	Sustainable transport and pollution to the environment
MLPCS001	Medium	High	Medium	Medium	Medium	Low	Low	Positive	Low	Medium	Medium	Very High	Low	Medium	Low	Medium	Medium	High	Low	High	High	Medium
MLPCS002	Low	Low	Medium	Low	Medium	Low	High	Positive	Low	Low	Low	Low	Low	Low	Low	Low	Medium	High	Low	High	High	Medium
MLPCS003	Low	High	Medium	Positive	Medium	Low	Low	Positive	Low	Low	High	Low	Low	Low	Low	Positive	Medium	High	Low	High	High	High
MLPCS004	Low	Low	Medium	Positive	Medium	Low	Low	Positive	Low	Low	High	Low	Low	Low	Low	Positive	Medium	Medium	Low	Medium	High	Low
MLPCS005 ¹⁵	Medium	High	Medium	Low	Medium	Low	Low	Positive	Low	Medium	Medium	Low	Low	Low	Low	Medium	Low	High	Low	Medium	High	High
MLPCS006	Medium	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Positive	Medium	High	Low	High	High	Low
MLPCS007	Low	High	Medium	Medium	Medium	Low	High	Positive	Low	Low	High	Medium	High	Medium	Low	Medium	Medium	High	Low	High	High	Medium
MLPCS008	Medium	Low	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Low	Low	Medium	Medium	Medium	Medium	High	High	High
MLPCS009	Medium	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Low	Medium	High	Low	High	High	Low
MLPCS010	Low	High	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Medium	Medium	High	Low	High	High	Low
MLPCS011	Low	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Medium	Low	High	Low	Medium	High	High
MLPCS012	Low	Low	Medium	Low	Medium	Low	Low	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	Low	Low	High	High	High
MLPCS014	Low	High	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	High	Low	High	High	High
MLPCS015	Low	Very High	Medium	Medium	Medium	Low	Medium	Positive	Low	Low	Medium	Medium	Very High	Low	Low	Medium	Low	High	Low	High	High	High
MLPCS016	Low	Low	Medium	Low	Medium	Medium	High	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	High	Medium	High	High	High
MLPCS017	Low	Low	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Medium	Low	Low	Medium	Low	Low	Medium	High	High
MLPCS018	Low	High	Medium	Low	Medium	Low	Low	Positive	Low	Low	Medium	Medium	Low	Medium	Low	Medium	Medium	High	Low	Medium	High	Medium
MLPCS019	Low	Low	Medium	Medium	Medium	Low	High	Positive	Low	Low	Medium	Low	Low	Medium	Low	Medium	Medium	Medium	Low	High	High	High
Preferred Area 1	Medium	Low	Medium	Medium	Medium	Low	High	Low	Low	Low	Medium	Medium	Low	Medium	Low	Medium	Medium	High	Low	Medium	High	Low
Preferred Area 2	Low	Very High	Medium	Medium	Medium	Medium	Low	Low	Low	Low	High	Medium	Low	Medium	Low	Medium	Low	High	Low	Medium	High	Medium

¹⁵ Site MLPCS005 has since been withdrawn and therefore has not been recommended as a potential site for inclusion in the plan.

Table 6.3: Summary of the suitability of each of the brick clay sites against detailed site assessment criteria

Site ID	Assessment Criteria																					
	Airport Safeguarding Zones	Ancient Woodland	Aquifers	BAP Priority Species or Habitats	BMV Land	Cumulative Effects	Ecological Status of Water Bodies	Flood Risk	Geodiversity	Green Belt	Groundwater Vulnerability	Heritage Designations	International and National Ecological Designations	Land Ownership	Landscape Designations	Local Nature Reserves and Local Wildlife Sites	Proximity of allocated residential or built development	Recreation	Restoration	Sensitive Land Uses	Sustainable transport	Sustainable transport and pollution to the environment
MLPCS013	Low	Low	Low	Positive	Medium	Low	Low	Positive	Low	Low	Medium	Medium	Low	Medium	Low	Positive	Low	Medium	Low	High	High	High
MLPCS020	Low	Very High	High	Medium	Medium	Low	High	Positive	Low	Low	Medium	Low	Low	Medium	Very High	High	Low	High	Low	High	High	High

Table 6.4: Summary of the potential effects of the sand and gravel sites

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
MLPCS001	Land at Cromer Hyde Farm	Welwyn Hatfield	2.4 million tonnes	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a very high impact on heritage designations as the site is partly located within Brocket Hall Registered Park and Garden and a high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site is adjacent to two areas of ancient woodland; • recreation as the site contains a PRow and is adjacent to a number of additional PRows and the Brocket Park Golf Course; • sensitive land uses as the site is immediately adjacent to a number of residential properties; and • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway (this is the same for all of the site options). <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction and HCC Highways has raised significant concerns which are likely to attract highway objections.</p> <p>MLPCS001 is in close proximity to MLPCS005, MLPCS006, MLPCS008 and MLPCS009. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise). The cumulative effects would be greater with regard to sites</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>MLPCS008 and MLPCS009 as they are much closer than sites MLPCS005 and MLPCS006.</p> <p>The SA of this site option identifies significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (air pollution of ecological sites), 2.1 (cultural heritage), 3.1 (landscape), 8.4 (agricultural land) and 9.2 (recreation). This assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS002	Land at Salisbury Hall	Hertsmere	860,000	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains a water body; • recreation as the site contains a PRow and is immediately adjacent to a number of additional PRows and the Watford Football Club Training Ground; • sensitive land uses as a number of residential properties are located adjacent to the site; and • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised significant concerns which are likely to attract highway objections.</p> <p>The SA of this site option identifies minor negative effects against SA objectives 1.1 (biodiversity protection), 4.1 (water quality), 2.1 (cultural heritage) and 3.1 (landscape) and significant negative effects against SA objective 9.2 (recreation).</p>

Agenda Pack 147 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				Therefore this assessment is broadly consistent with the site selection study assessment summarised above.
MLPCS003	Land at Ware Park	East Hertfordshire	2.6 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and local wildlife sites and BAP priority habitats or species as the proposed restoration includes woodland and a small area of wetland.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site is located immediately adjacent to one area of ancient woodland; • groundwater as the site is partly located within Source Protection Zone 1; • recreation as the site contains a PRow and is immediately adjacent to a number of additional PRows; • sensitive land uses as the site is located immediately adjacent to a number of residential properties; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not within close proximity to the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>The SA of this site option identifies minor negative effects against SA objectives 3.1 (landscape) and 9.1 (health & amenity) and significant negative effects against SA objectives 1.1 (biodiversity), 4.1 (Water), 9.2 (recreation) and 1.3 (air</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				pollution of ecological sites). This assessment is broadly consistent with the site selection study assessment summarised above.
MLPCS004	Land at Pynesfield	Three Rivers	300,000 – 350,000	<p>The site scored very well during the site assessment as it is considered that only two high impact is likely to occur which is on groundwater and sustainable transport as a result of the site's lack of access to the rail network or a navigable waterway.</p> <p>The development of the site is also considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and local wildlife sites and BAP priority habitats and species as the proposed restoration includes a wetland sustainable drainage scheme.</p> <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has no fundamental highway objection, in principle.</p> <p>The SA of this site option identifies minor negative effects against SA objectives 9.2 (recreation loss) and 3.1 (landscape). In addition, the SA identifies significant negative effects against SA objectives 1.1 (biodiversity protection) and 1.3 (biodiversity air quality effects). Therefore, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS005 (withdrawn)	Nashe's and Fairfold's Farm	St. Albans	1.25 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> ancient woodland as the site is adjacent to one area of

Agenda Pack 149 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>ancient woodland;</p> <ul style="list-style-type: none"> • recreation as the site contains a PRow and is adjacent to a number of additional PRowS; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not within close proximity to the strategic road network. <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction and HCC Highways has raised significant concerns which are likely to attract highway objections.</p> <p>MLPCS005 is in close proximity to MLPCS001, MLPCS006, MLPCS008 and MLPCS009. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise). The cumulative effects would be greater with regard to site MLPCS006 as it is much closer than sites MLPCS001, MLPCS008 and MLPCS009.</p> <p>The SA of this site option identifies a minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape), 4.1 (water quality) and 9.4 (aerodrome safety). The SA identifies significant negative effects against SA objectives 1.1 (biodiversity) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p> <p>Site MLPCS005 has since been withdrawn and therefore has not been recommended as a potential site for inclusion in the plan.</p>

Agenda Pack 150 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
MLPCS006	Hatfield Aerodrome	St. Albans and Welwyn Hatfield	8 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and local wildlife sites and BAP priority species or habitats as the restoration proposals include the creation of grassland and wetland.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains two watercourses; • recreation as the site contains one PRoW and is used for informal recreation and is adjacent to the Hertfordshire Sports Village and a number of additional PRoWs; • sensitive land uses as the site is adjacent to a number of residential properties; and • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS006 is in close proximity to MLPCS001, MLPCS005, MLPCS008 and MLPCS009. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise). The cumulative effects would be greater with regard to site MLPCS005 as it is much closer than sites MLPCS001, MLPCS008 and MLPCS009.</p> <p>The SA of this site option identifies minor negative effects</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				against SA objectives 2.1 (heritage), 4.1 (Water) and 9.4 (aerodrome safety) and significant negative effects against SA objective 1.1 (biodiversity protection), 1.3 (Biodiversity and air quality), 8.4 (agricultural land) and 9.2 (recreation). In addition, the SA also identifies a minor positive effect (with some uncertainty) against SA objective 6.2 (flood alleviation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
MLPCS007	Barwick	East Hertfordshire	Estimated at 5 million tonnes	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site is adjacent to an area of ancient woodland; • the ecological status of water bodies as the site contains a watercourse; • groundwater as part of the site is within Source Protection Zone 1; • recreation as the site contains a PRow and is adjacent to a number of additional PRowS; • sensitive land uses as the site is adjacent to a number of residential properties; and • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway. <p>The site was also considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction.</p> <p>HCC Highways has not provided any comments as no information was submitted with the call for sites in relation to the proposed access points or HGV routing.</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>MLPCS007 is in close proximity to MLPCS015. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies a minor negative effect against SA objective 2.1 (heritage) and significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air quality effects), 4.1 (water), 9.2 (recreation) and 3.1 (landscape). In addition, a significant positive effect is identified against SA objective 6.2 (flood alleviation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS008	Hatfield – Furze Field	Welwyn Hatfield	532,000	<p>The site scored well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • sensitive land uses as a number of residential properties lie within 100m of the site; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as it not located within close proximity to the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>overcome following further information/ assessment.</p> <p>MLPCS008 is in close proximity to MLPCS001, MLPCS005, MLPCS006 and MLPCS009. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise). The cumulative effects would be greater with regard to sites MLPCS001 and MLPCS009 as they are much closer than sites MLPCS005 and MLPCS006.</p> <p>The SA of this site option identifies minor negative effects against SA objective 9.4 (aerodrome safety), 9.2 (recreation loss), 3.1 (landscape) and 4.1 (water quality). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS009	Hatfield Quarry – Land adjoining Coopers Green Lane	Welwyn Hatfield	6.6 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive effect on flood risk as any proposal may include a dewatering pond and BAP priority species or habitats as the proposed restoration includes the creation of wetland.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains a watercourse and is adjacent to an additional watercourse; • recreation as the site contains two PROWs and is adjacent to two designated areas of open space; • sensitive land uses as the site is adjacent to a number of residential properties; and • sustainable transport as the site is not located within

Agenda Pack 154 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>close proximity to the rail network or a navigable waterway.</p> <p>The site is considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS009 is in close proximity to MLPCS001, MLPCS005, MLPCS006 and MLPCS008. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise). The cumulative effects would be greater with regard to sites MLPCS001 and MLPCS008 as they are much closer than sites MLPCS005 and MLPCS006.</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape), 4.1 (water quality) and 9.4 (aerodrome safety) and a significant negative effect against SA objective 1.1 (biodiversity protection), 1.3 (biodiversity air quality effects), 8.4 (agricultural land) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS010	The Briggens Estate	East Hertfordshire	10.7 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and BAP priority species or habitats as the proposed restoration includes the allocation of land for nature conservation purposes.</p> <p>However, it is considered that the development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site is adjacent to one area of

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>ancient woodland;</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains a watercourse and a number of small water bodies; • recreation as the site contains two PROWs; • sensitive land uses as the site is adjacent to a number of residential properties; and • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised significant concerns which are likely to attract highway objections.</p> <p>The SA of this site option identifies minor negative effects against SA objectives 4.1 (water) and 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air pollution effects), 2.1 (heritage), 8.4 (agricultural land) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS011	Water Hall Quarry – Farm Fields Area	East Hertfordshire	956,000	<p>The site scored reasonably well during the site assessment. The development site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and BAP priority species or habitats as the proposed restoration includes the creation of two lakes separated by wetland and additional wildlife habitat.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains one watercourse and is adjacent to another watercourse;

Agenda Pack 156 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<ul style="list-style-type: none"> • recreation as the site is adjacent to a PRoW and within close proximity of three additional PRoW; • sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity of the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0011 is in close proximity to MLPCS012, MLPCS014, MLPCS016, MLPCS017, MLPCS018 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 landscape), 4.1 (water quality) and 9.2 (recreation) and significant negative effects against 1.1 (biodiversity). In addition, the SA identifies a significant positive effect (with some uncertainty) against SA objective 6.2 (flood alleviation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS012	Water Hall Quarry – Broad Green Area	East Hertfordshire	450,000	The site scored well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • sensitive land uses as the site is immediately adjacent to a number of residential properties; • sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity of the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0012 is in close proximity to MLPCS011, MLPCS014, MLPCS016, MLPCS017, MLPCS018 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape) and 4.1 (water quality) and a significant adverse effect against SA objective 1.1 (biodiversity protection). In addition, a minor positive effect is recorded in relation to SA objective 9.3 (recreation provision). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>

Agenda Pack 158 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
MLPCS014	Water Hall Quarry – Bunkers Hill South Area	East Hertfordshire	1 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site is adjacent to one area of ancient woodland; • recreation as the site is adjacent to one PRow; • sensitive land uses as the site is adjacent to a number of residential properties; • sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0014 is in close proximity to MLPCS011, MLPCS012, MLPCS016, MLPCS017, MLPCS018 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects</p>

Agenda Pack 159 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				against SA objectives 2.1 (heritage), 3.1 landscape) and 9.2 (recreation loss) and a significant negative effect against SA objective 1.1 (biodiversity). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
MLPCS015	Plashes Farm	East Hertfordshire	500,000	<p>The site scored less well during the site assessment than other sites because it is considered that development of the site could have a very high impact on:</p> <ul style="list-style-type: none"> • ancient woodland as the site contains three areas and is adjacent to three additional areas of ancient woodland; and • international and national ecological designations as the site is adjacent to Plashes Wood SSSI (Site of Special Scientific Interest). <p>The site is also considered likely to have a high impact on:</p> <ul style="list-style-type: none"> • recreation as the site contains three PRoW; • sensitive land uses as the site is adjacent to Plashes Farm; • sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network. <p>The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>The site is considered to have an overall moderate-high landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be</p>

Agenda Pack 160 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>overcome following further information/ assessment.</p> <p>MLPCS015 is in close proximity to MLPCS007. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage) and 4.1 (water quality) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air quality effects), 3.1 (landscape) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS016	Water Hall Quarry – Howe Green Area	East Hertfordshire	1.7 million	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains one watercourse which also runs down its eastern boundary; • recreation as the site contains two PRoW and is within close proximity of an additional PRoW; • sensitive land uses as the site is adjacent to residential properties; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and

Agenda Pack 161 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<ul style="list-style-type: none"> sustainable transport and pollution to the environment as the site is not located within close proximity of the strategic road network. <p>The site is considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has not assessed the site as no details of access arrangements were submitted with the call for sites submission. If access is proposed from Robin Nest Hill it is anticipated that improvements will be required to accommodate mineral excavation at the site.</p> <p>MLPCS0016 is in close proximity to MLPCS011, MLPCS012, MLPCS014, MLPCS017, MLPCS018 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects against SA objective 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity protection), 4.1 (water quality) and 9.2 (recreation loss). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS017	Robins Nest Hill	East Hertfordshire	1 million	<p>The site scored very well during the site assessment as it is considered that development of the site is only likely have a high impact on:</p> <ul style="list-style-type: none"> sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; sustainable transport and pollution to the

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>environment as the site is not located within close proximity to the strategic road network.</p> <p>The development of the site is also considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>The site is considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0017 is in close proximity to MLPCS011, MLPCS012, MLPCS014, MLPCS016, MLPCS018 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies a minor negative effect against SA objective 3.1 (landscape) and 4.1 (water quality) and significant adverse effects against SA objectives 1.1 (biodiversity protection). In addition, the SA identifies a minor positive effect (with some uncertainty) against SA objective 9.3 (recreation provision). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS018	Southfield Wood East	East Hertfordshire	500,000	<p>The site scored reasonably well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> ancient woodland as the site is adjacent to one area of

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>ancient woodland;</p> <ul style="list-style-type: none"> • recreation as the site contains two PRoW; and • sustainable transport as the site is not located within close proximity of the rail network or a navigable waterway. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0018 is in close proximity to MLPCS011, MLPCS012, MLPCS014, MLPCS016, MLPCS017 and MLPCS019. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies a minor negative effect against SA objective 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air pollution effects), 2.1 (historic environment) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS019	Pipers End	East Hertfordshire	1.4 million	<p>The site scored reasonably well during the site assessment. The development of site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>However, it is considered that development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • the ecological status of water bodies as the site contains two watercourses and is adjacent to two additional

Agenda Pack 164 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes)	Summary of potential effects if site developed for mineral extraction
				<p>watercourses;</p> <ul style="list-style-type: none"> • sensitive land uses as the site is adjacent to a number of residential properties; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network. <p>The site is considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>MLPCS0019 is in close proximity to MLPCS011, MLPCS012, MLPCS014, MLPCS016, MLPCS017 and MLPCS018. As such, if the sites were to come forward for extraction at the same time or immediately after one another there is potential for cumulative adverse effects (additive or temporal effects respectively) with regard to transport (e.g. vehicular movements and emissions) and the amenity of sensitive receptors (e.g. air quality, noise).</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape) and 4.1 (water quality) and significant adverse effects against SA objective 1.1 (biodiversity protection) and 9.2 (recreation loss). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>

Table 6.5: Summary of the potential effects of the brick clay sites

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes/m ³)	Summary of potential effects if site developed for mineral extraction
MLPCS013	Harry's Field	Dacorum	140,000 tonnes	<p>The site scored well during the site assessment. The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond and local wildlife sites and BAP priority species or habitats as the proposed restoration includes ecological restoration.</p> <p>However, it is considered that the development of the site could have a high impact on:</p> <ul style="list-style-type: none"> • sensitive land uses as the site is adjacent to a number of residential properties; • sustainable transport as the site is not located within close proximity to the rail network or a navigable waterway; and • sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network. <p>The site is considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage) and 3.1 (landscape) and significant adverse effects against SA objective 1.1 (biodiversity protection). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
MLPCS020	Roundhill Wood	Dacorum	15,000m ³	<p>The site scored less well during the site assessment than other sites because it is considered that development of the site could have a very high impact on:</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes/m ³)	Summary of potential effects if site developed for mineral extraction
				<ul style="list-style-type: none"> • ancient woodland as the site contains Roundhill Wood Ancient Woodland. • landscape designations as the site is entirely located within the Chilterns Area of Outstanding Natural Beauty <p>The site is also considered likely to have a high impact on:</p> <ul style="list-style-type: none"> • aquifers as the site is located on a principal aquifer. • ecological status of water bodies as the site contains a number of small water bodies. • Local Nature Reserves and Local Wildlife Sites as the site lies entirely within a Local Wildlife Site. • recreation as the site contains four PRoW. • sensitive land uses as the site is located immediately adjacent to a number of residential properties. • sustainable transport as the site is not located within close proximity to the rail network or navigable waterway network. • sustainable transport and pollution to the environment as the site is not located within close proximity to the strategic road network. <p>The development of the site is considered likely to have a positive impact on flood risk as any proposal may include a dewatering pond.</p> <p>The site is also considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>The SA of this site option identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 3.1 (landscape), 8.4</p>

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes/m ³)	Summary of potential effects if site developed for mineral extraction
				(agricultural land) and 9.2 (recreation loss). In addition, minor negative effects are identified against SA objectives 2.1 (historic environment), 4.1 (water quality), 7.1 (recycling) and 9.1 (health and well being). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
1	Land close to the existing Hatfield Quarry	Welwyn Hatfield	N/A	<p>Development within this Preferred Area could have a high impact on:</p> <ul style="list-style-type: none"> • Ecological status of water bodies as there are a number of water bodies adjacent to the Preferred Area. • Recreation as the Preferred Area is part of Ellenbrook Fields, which is an area of recreational green space. • Sustainable transport as the Preferred Area is not located within close proximity to the rail network or navigable waterway network. <p>The site is also considered to have an overall low-moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>The SA of this Preferred Area identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 4.1 (water quality) and 9.2 (recreation loss). Minor negative effects were identified against SA objectives 2.1 (historic environment), 7.1 (recycling), 8.4 (agricultural land), 9.1 (health and wellbeing) and 9.4 (aerodrome safety). Positive or neutral effects were recorded against all other SA objectives, with the exception of SA objective 5.2 (energy efficiency), to which effects were uncertain. Overall, this assessment is broadly consistent with</p>

Agenda Pack 168 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes/m ³)	Summary of potential effects if site developed for mineral extraction
				the site selection study assessment summarised above.
2	Land to the north of the existing Rickneys Quarry	East Hertfordshire	N/A	<p>Development within this Preferred Area could have a very high impact on:</p> <ul style="list-style-type: none"> • Ancient Woodland as there are two areas of replanted ancient woodland within the Preferred Area and further areas of ancient woodland adjacent to the Preferred Area. <p>The site is also considered likely to have a high impact on:</p> <ul style="list-style-type: none"> • Groundwater vulnerability as part of the site lies within SPZ 1. • Recreation as several PRow cross the Preferred Area. • Sustainable transport as this Preferred Area is distant from the rail network and the navigable waterway network. <p>The site is also considered to have an overall moderate landscape and visual sensitivity to mineral extraction and HCC Highways has raised some concerns which could be overcome following further information/ assessment.</p> <p>The SA of this Preferred Area identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 2.1 (historic environment), 4.1 (water quality) and 9.2 (recreation loss). Minor negative effects were identified against SA objectives 7.1 (recycling), 8.4 (agricultural land) and 9.1 (health and wellbeing). Positive or neutral effects were recorded against all other SA objectives, with the exception of SA objective 5.2 (energy efficiency), to which effects were uncertain. Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>

Agenda Pack 169 of 454

Site ID	Site Name	District(s)	Proposed mineral reserve (tonnes/m ³)	Summary of potential effects if site developed for mineral extraction
				Note that restoration details are not available for this Preferred Area.

Table 6.6: Proposed sites and preferred areas ranked in terms of their potential impact on the site and surrounding environment

Ranking	Site ID	Sieve 2	Airport Safeguarding Zones	Ancient Woodland	Aquifers	BAP Priority Species or Habitats	BMV Land	Cumulative Effects	Ecological Status of Water Bodies	Flood Risk	Geodiversity	Green Belt	Groundwater Vulnerability	Heritage Designations	International and National Ecological Designations	Land Ownership	Landscape Designations	Local Nature Reserves and Local Wildlife Sites	Proximity of allocated residential or built development	Recreation	Restoration	Sensitive Land Uses	Sustainable transport	Sustainable transport and pollution to the environment	Landscape and Visual Assessment	HCC Highways Assessment	
			Sieve 3 Assessment Criteria																								
Sand and Gravel Sites																											
1	MLPCS004		Low	Low	Medium	Positive	Medium	Low	Low	Positive	Low	Low	High	Low	Low	Low	Low	Positive	Medium	Medium	Low	Medium	High	Low	Low-Moderate	Green	
2	MLPCS012		Low	Low	Medium	Low	Medium	Low	Low	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	Low	Low	High	High	High	Low-Moderate	Amber	
3	MLPCS017		Low	Low	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Medium	Low	Low	Medium	Low	Low	Medium	High	High	Moderate	Amber	
4	MLPCS008		Medium	Low	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Low	Low	Medium	Medium	Medium	Medium	High	High	High	Low-Moderate	Amber	
5	Preferred Area 1		Medium	Low	Medium	Medium	Medium	Low	High	Low	Low	Low	Medium	Medium	Low	Medium	Low	Medium	Medium	High	Low	Medium	High	Low	Low-Moderate	Grey	
6	MLPCS006		Medium	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Positive	Medium	High	Low	High	High	Low	Low-Moderate	Amber	
7	MLPCS009		Medium	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Low	Medium	High	Low	High	High	Low	Moderate	Amber	
8	MLPCS018		Low	High	Medium	Low	Medium	Low	Low	Positive	Low	Low	Medium	Medium	Low	Medium	Low	Medium	Medium	High	Low	Medium	High	Medium	Low-Moderate	Amber	
9	Preferred Area 2		Low	Very High	Medium	Medium	Medium	Medium	Low	Low	Low	Low	High	Medium	Low	Medium	Low	Medium	Low	High	Low	Medium	High	Medium	Moderate	Medium	
10	MLPCS002		Low	Low	Medium	Low	Medium	Low	High	Positive	Low	Low	Low	Low	Low	Low	Low	Low	Medium	High	Low	High	High	Medium	Low-Moderate	Red	
11	MLPCS011		Low	Low	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Medium	Low	High	Low	Medium	High	High	Low-Moderate	Amber	
12	MLPCS019		Low	Low	Medium	Medium	Medium	Low	High	Positive	Low	Low	Medium	Low	Low	Medium	Low	Medium	Medium	Medium	Low	High	High	High	Moderate	Amber	
13	MLPCS003		Low	High	Medium	Positive	Medium	Low	Low	Positive	Low	Low	High	Low	Low	Low	Low	Positive	Medium	High	Low	High	High	High	Low-Moderate	Amber	
14	MLPCS010		Low	High	Medium	Positive	Medium	Low	High	Positive	Low	Low	Medium	Medium	Low	Low	Low	Medium	Medium	High	Low	High	High	Low	Low-Moderate	Red	

Ranking	Site ID	Sieve 2	Airport Safeguarding Zones	Ancient Woodland	Aquifers	BAP Priority Species or Habitats	BMV Land	Cumulative Effects	Ecological Status of Water Bodies	Flood Risk	Geodiversity	Green Belt	Groundwater Vulnerability	Heritage Designations	International and National Ecological Designations	Land Ownership	Landscape Designations	Local Nature Reserves and Local Wildlife Sites	Proximity of allocated residential or built development	Recreation	Restoration	Sensitive Land Uses	Sustainable transport	Sustainable transport and pollution to the environment	Landscape and Visual Assessment	HCC Highways Assessment	
15	MLPCS014		Low	High	Medium	Low	Medium	Low	Medium	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	High	Low	High	High	High	Low-Moderate	Amber	
16	MLPCS016		Low	Low	Medium	Low	Medium	Medium	High	Positive	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	High	Medium	High	High	High	Moderate	Grey	
17	MLPCS005 ¹⁶		Medium	High	Medium	Low	Medium	Low	Low	Positive	Low	Medium	Medium	Low	Low	Low	Low	Medium	Low	High	Low	Medium	High	High	Moderate-High	Red	
18	MLPCS007		Low	High	Medium	Medium	Medium	Low	High	Positive	Low	Low	High	Medium	Low	Medium	Low	Medium	Medium	High	Low	High	High	Medium	Moderate-High	Grey	
19	MLPCS001		Medium	High	Medium	Medium	Medium	Low	Low	Positive	Low	Medium	Medium	Very High	Low	Medium	Low	Medium	Medium	High	Low	High	High	Medium	Moderate-High	Red	
20	MLPCS015		Low	Very High	Medium	Medium	Medium	Low	Medium	Positive	Low	Low	Medium	Medium	Very High	Low	Low	Medium	Low	High	Low	High	High	High	Moderate-High	Amber	
Brick Clay Sites																											
1	MLPCS013		Low	Low	Low	Positive	Medium	Low	Low	Positive	Low	Low	Medium	Medium	Low	Medium	Low	Positive	Low	Medium	Low	High	High	High	Low-Moderate	Amber	
2	MLPCS020		Low	Very High	High	Medium	Medium	Low	High	Positive	Low	Low	Medium	Low	Low	Medium	Very High	High	Low	High	Low	High	High	High	Moderate	Amber	

* Sites have been ranked 1-20 for the sand and gravel sites and 1-2 for the brick clay sites and sand and gravel Preferred Options, with 1 being the site with the least high impacts and 18 or 2 being the site with the highest impacts.

¹⁶ Site MLPCS005 has since been withdrawn and therefore has not been recommended as a potential site for inclusion in the Plan.

7 Conclusions

- 7.1 This section summarises the conclusions of the Site Selection Study, highlighting which of the 18 sand and gravel site options, two sand and gravel preferred areas and two brick clay site options are likely to be the most appropriate for allocation in the Hertfordshire Minerals Local Plan.
- 7.2 All 20 site options and two preferred areas have been subjected to Sieves 1, 2 and 3 of the site selection assessment as well as separate landscape and visual sensitivity and highways assessments. Site MLPCS005 has been withdrawn and so is not recommended for allocation in the Plan. However, in order to provide a comprehensive picture of the full range of site options, site MLPCS005 has been included within the site selection assessment.
- 7.3 **Figure 7.1** illustrates the ranking of sites outlined in **Table 6.6** above according to their potential impact on the site and surrounding environment.

Sand and gravel site options

- 7.4 Of the 18 sand and gravel sites and two sand and gravel preferred areas, site option MLPCS004 Pynesfield stands out as the least constrained option. MLPCS004 is considered to have potential to have high impacts on only two Sieve 3 assessment criteria (groundwater and sustainable transport) and scores 'low-moderate' and 'green' in the landscape and visual sensitivity assessment and highways assessments respectively. MLPCS004 is a relatively small site option located at the southern tip of the County close to the M25 and M40 motorways, directly adjacent to the London Borough of Hillingdon and South Buckinghamshire District.
- 7.5 Six sand and gravel site options and the two sand and gravel preferred areas have only three or four 'red' scores indicating a modest range of high impacts across the assessment criteria and therefore potential suitability for allocation. Starting with the least constrained, these are:
- MLPCS012 Broad Green has potential for high impacts against three Sieve 3 assessment criteria: sensitive land uses, sustainable transport and transport related pollution.
 - MLPCS017 Robins Nest Hill has potential for high impacts against two Sieve 3 assessment criteria 'sustainable transport' and 'transport related pollution', and scored 'red' in the Sieve 2 assessment.
 - MLPCS008 Furze Field has potential for high impacts against three Sieve 3 assessment criteria: sensitive land uses, sustainable transport and transport related pollution.
 - Preferred Area 1 has potential for high impacts against three Sieve 3 assessment criteria: Ecological status of water bodies, recreation and sustainable transport.
 - MLPCS006 Hatfield Aerodrome has potential for high impacts against four Sieve 3 assessment criteria: ecological status of water bodies, recreation, sustainable transport and transport related pollution.
 - MLPCS009 Land adjoining Coopers Green Lane has potential for high impacts against four Sieve 3 assessment criteria: ecological status of water bodies, recreation, sensitive land uses and sustainable transport.
 - MLPCS018 Southfield Wood has potential for high impacts against three Sieve 3 assessment criteria, ancient woodland, 'recreation' and 'sustainable transport', and scored 'red' in the Sieve 2 assessment.
 - Preferred Area 2 has potential for very high impacts against one Sieve 3 assessment criterion: Ancient Woodland. This Preferred Area also has potential for high impacts against three Sieve 3 assessment criteria: Groundwater vulnerability, recreation and sustainable transport.

- 7.6 These six sand and gravel site options and two preferred areas are all located to the north, east and west of Hatfield in the centre of the County in close proximity to the A414 which runs through the middle of the County connecting the sites to Hatfield, Hertford, Hemel Hempstead, St Albans and Welwyn Garden City.
- 7.7 Seven sand and gravel site options have five and six 'red' scores indicating a moderate range of high impacts across the assessment criteria and lower potential suitability for allocation. Starting with the least constrained, these are:
- MLPCS002 Land at Salisbury Hall has potential for high impacts against four Sieve 3 assessment criteria: ecological status of water bodies, recreation, sensitive land uses, and sustainable transport. In addition, HCC's Highways impact assessment identified potential for the site to have high impacts on the local highway network.
 - MLPCS011 Farm Fields has potential for high impacts against four Sieve 3 assessment criteria 'ecological status of water bodies', 'recreation', 'sustainable transport' and 'transport related pollution', and scored 'red' in the Sieve 2 assessment.
 - MLPCS019 Pipers End has potential for high impacts against four Sieve 3 assessment criteria, 'ecological status of water bodies', 'sensitive land uses', 'sustainable transport' and 'transport related pollution', and scored 'red' in the Sieve 2 assessment.
 - MLPCS003 Land at Ware Park has potential for high impacts against six Sieve 3 assessment criteria: ancient woodland, groundwater vulnerability, recreation, sensitive land uses, sustainable transport and transport related pollution.
 - MLPCS010 Briggens Estate has potential for high impacts against five Sieve 3 assessment criteria: ancient woodland, ecological status of water bodies, recreation, sensitive land uses and sustainable transport. In addition, HCC's Highways impact assessment identified potential for the site to have high impacts on the local highway network.
 - MLPCS014 Bunkers Hill South has potential for high impacts against five Sieve 3 assessment criteria, 'ancient woodland', 'recreation', 'sensitive land uses', 'sustainable transport' and 'transport related pollution', and scored 'red' in the Sieve 2 assessment.
 - MLPCS016 Howe Green has potential for high impacts against five Sieve 3 assessment criteria, 'ecological status of waterbodies', 'recreation', 'sensitive land uses', 'sustainable transport' and 'transport related pollution', and scored 'red' in the Sieve 2 assessment.
- 7.8 These seven site options are all located to the east and west of Hatfield and to the north and east of Hertford in the centre of the County. Again these sites are in close proximity to the A414 which runs through the middle of the County connecting the sites to Hatfield, Hertford, Hemel Hempstead, St Albans and Welwyn Garden City.
- 7.9 The remaining four sand and gravel site options (MLPCS001 Cromer Hyde Farm, MLPCS005 Nashe's and Fairfold's Farm, MLPCS007 Barwick and MLPCS015 Plashes Farm) have over seven 'red' scores suggesting that these sites offer the least potential as sand and gravel site allocations. Sites MLPCS001 and MLPCS005 lie to the north west of Hatfield, whereas sites MLPCS007 and MLPCS015 represent the most north eastern site options. Site MLPCS001 has the potential for very high impacts on heritage designations within close proximity to the site. Site MLPCS015 has potential for very high impacts on the pockets of ancient woodland it contains. Furthermore, all four options lie within close proximity to sensitive land uses and have the potential for high impacts on the local recreation resource, sustainable transport network and landscape.
- 7.10 There is some uncertainty attached to the suitability of the relatively unconstrained sand and gravel site options MLPCS017 and MLPCS018, moderately constrained sites MLPCS011 and MLPCS019 and highly constrained sites MLPCS001, MLPCS005, MLPCS007, MLPCS014, MLPCS015 and MLPCS016. These ten sites all score 'red' in the Sieve 2 assessment due to a lack of information to conclusively determine their economic viability and deliverability. This uncertainty should be resolved before any of these site options are allocated within the Minerals Local Plan.
- 7.11 **Overall, the sand and gravel site options and preferred areas that score between one and four 'red' scores (i.e. MLPCS004, MLPCS012, MLPCS017, MLPCS008, MLPCS006, MLPCS009 and MLPCS018) are likely to have the greatest potential to mitigate the**

adverse impacts associated with their excavation and operation and are therefore considered to be the most appropriate site options for allocation in the Minerals Local Plan. As Preferred Area 1 and 2 also score between one and four 'red' scores, these areas could be considered as continuing preferred areas.

Brick clay site options

- 7.12 The two brick clay site options lie close to the western edge of the County bordering Buckinghamshire. Site option MLPCS013, to the east of Chesham scores considerably better than site option MLPCS020 which lies further to the north west to the west of Berkhamsted:
- MLPCS013 has potential for high impacts against three Sieve 3 assessment criteria: sensitive land uses, sustainable transport and transport related pollution.
 - MLPCS020 has potential for high impacts against nine Sieve 3 assessment criteria: ancient woodland, aquifers, ecological status of water bodies, landscape, Local Nature Reserves and Local Wildlife Sites, recreation, sensitive land uses, sustainable transport and transport related pollution. There is potential for very high impacts on the ancient woodland that sits within the site and the wider landscape.
- 7.13 **Therefore, brick clay site MLPCS013 represents the most appropriate site option for allocation in the Minerals Local Plan.**

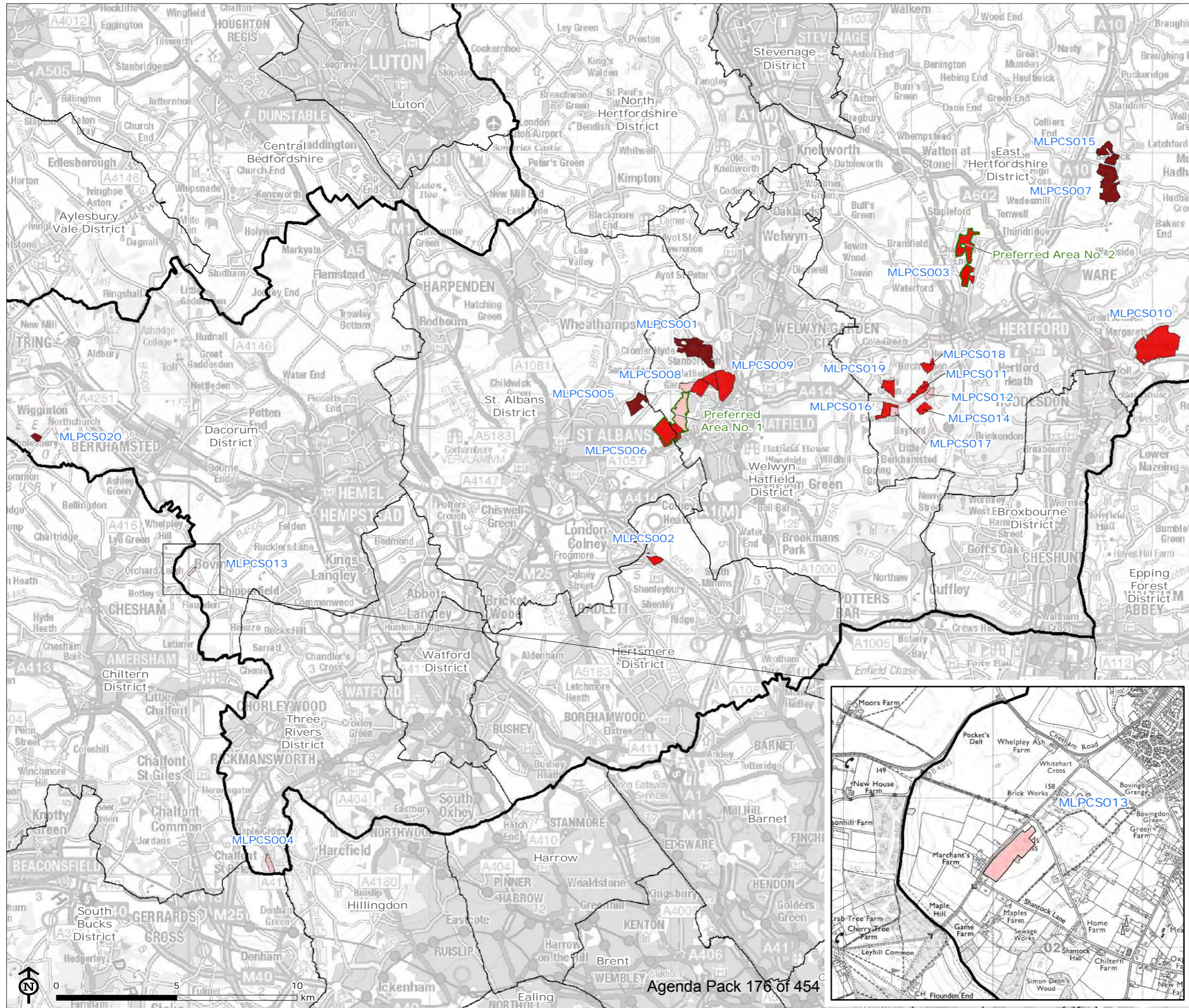


Figure 7.1: Site ranking based on the range and severity of likely adverse effects generated by each site

- Hertfordshire County boundary
- District boundary
- Number of red scores for each site [1][2]
- Less than or equal to 3
- 4 - 6
- greater than or equal to 7

[1] Sites MLPCS013 and MLPCS020 are brick clay sites; the remaining 18 sites and the two preferred areas are sand and gravel sites

[2] Preferred Areas are depicted in the map with green outlines

Map Scale @ A3: 1:155,000

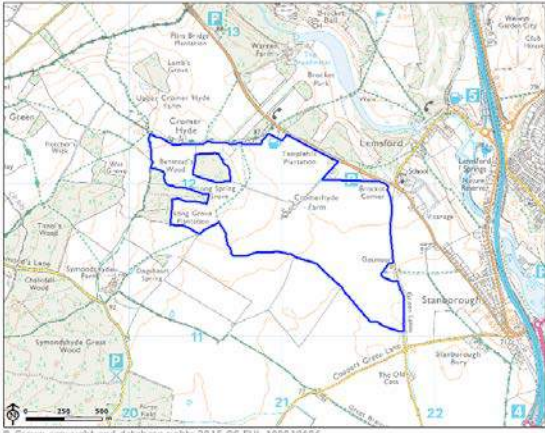



Appendix 1

Site and Preferred Area Proforma

Site Selection Proforma: MLPCS001

Site Information

Site Name: Land at Cromer Hyde Farm		Site ID Number: MLPCS001	
			
Site Contact:	Agent – Strutt and Parker	Site Visit Date and Time:	05/07/2016 - Afternoon
Site Area:	103.6ha	Attendees:	Jonny Hill
Central Grid Ref.:	211834 521084	Planning History:	The site has no relevant planning history.
District:	Welwyn Hatfield		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls within Resource Block F of IMAU report 69.</p> <p>This is confirmed by the digital BGS Resource Map which shows the eastern part of site to be underlain by glacio-fluvial sand & gravel, concealed by overlying deposits in the western part of the site.</p> <p>The BGS superficial geology map shows the sand & gravel to be part of the pre-glacial Kesgrave Catchment Subgroup, and confirms that these are overlain in the western part of the site by an overburden of glacial till.</p> <p>The site falls within the Hertfordshire Mineral Resource Block 13.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	2.4mt	<p>Rough estimate, based only on six pre-existing boreholes The estimated tonnage equates to 1.45 million m³, which implies an average thickness of 1.48m across the 98-hectare site.</p> <p>IMAU boreholes suggest mineral thickness of up to 10m in this area, averaging 5.4m across IMAU Block F, but highly variable.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	No	Infrastructure in place for adjoining site to the south.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	No impacts expected, but this is simply an assumption based on the fact that the adjoining land has been worked. It does not consider

Agenda Pack 179 of 454

Criterion	Yes/No	Justification
		what mitigation may have been needed there. But it may be reasonable to assume similar requirements would apply and therefore likely to be affordable.
• Deliverability: operator willing?	Not known	No operator involvement
• Deliverability: landowner willing?	Yes	Proposed by landowner's agent Available within 1-5 years
• Other points to note:	Adjoins Hatfield Quarry Adjoining land to south has been worked for sand & gravel	
Adequacy of Supporting Information	Information is currently inadequate to support the proposed allocation. Limited evidence has been provided of economic viability and impact mitigation, and there has been no operator involvement as yet.	
Suitability for consideration as a Specific Site allocation, on resource grounds	No.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The site is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	High	The site is located immediately adjacent to two areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Medium	The site contains a small area of deciduous woodland and is located within close proximity to a number of other deciduous woodlands (one immediately adjacent to the site).
BMV land	Medium	The site is located within Grade 2 and 3 agricultural land, approximately 70% and 30% of the site respectively.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.

Agenda Pack 180 of 454

Criterion	Score (Impact)	Justification
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Medium	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, due to the openness of the site the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 80% of the site is located within Source Protection Zone 3 with the remaining 20% not located within Source Protection Zone.
Heritage designations	Very High	The site is partly located within Brocket Hall Registered Park and Garden and is immediately adjacent to four Grade II listed buildings.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Medium	The site is currently not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is located immediately adjacent Benstead's Wood and Long Spring and Long Grove Plantation Local Wildlife Sites.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Cromer Hyde and approximately 30m to the south of Lemsford. The site is not located within close proximity to or within a site allocation of the Welwyn Hatfield District Local Plan 2005. However, it is immediately adjacent to proposed site allocation SDS6 and approximately 100m to the north of proposed site allocation SDS5 within Welwyn Hatfield's

Agenda Pack 181 of 454

Criterion	Score (Impact)	Justification
		Proposed Submission Local Plan (August 2016).
Recreation	High	The site contains a PRoW and is immediately adjacent to a number of other PRoWs. Brocket Park Golf Course is also located to the north of the site.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The site is located immediately adjacent to Cromer Hyde, Gosmoor and a property which is located on the access to Cromer Hyde Farm. Lemsford is also located approximately 30m north of the site.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Medium	The site is located within close proximity to the strategic road network (A1 and A414) and is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal¹⁷		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (air pollution of ecological sites), 2.1 (cultural heritage), 3.1 (landscape), 8.4 (agricultural land) and 9.2 (recreation). This assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments¹⁸		
<p>The site is considered to have moderate-high sensitivity to mineral extraction due to the openness of the site and open views from residential properties adjacent to the site that cannot be mitigated by screen planting without blocking the open views across the wider landscape currently enjoyed by those residents. Mineral workings are likely to be seen by people using the footpath crossing the site.</p> <p>The site is open, particularly to the south and mineral extraction is likely to degrade some valued features, such as the ancient woodland contained within the site and potential severance of the visual link along the lime avenue between Benstead's Wood and Brocket Hall. Although the ancient woodland could be left untouched, extraction could not be screened without changing the characteristic large scale openness of the area and interrupting the visual link along the lime avenue between Benstead's Wood and Brocket Hall. There may be opportunities to improve degraded hedgerows as part of any mitigation scheme.</p>		
Summary of HCC Highways Comments¹⁹		Score:

¹⁷ For the full assessment please see LUC (2016) *Hertfordshire Minerals Local Plan Sustainability Appraisal*

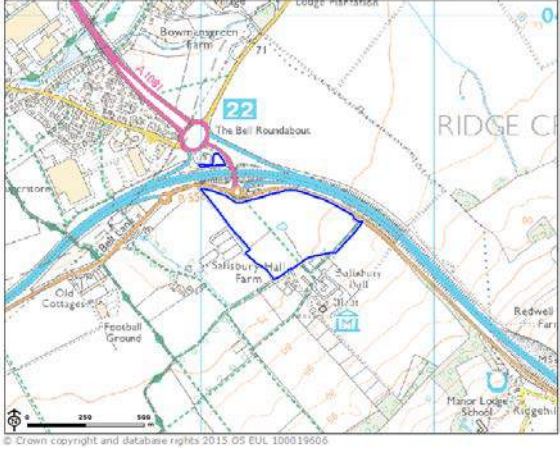

¹⁸ For the full assessment please see LUC (2016) *Hertfordshire Landscape and Visual Sensitivity Study of Potential Mineral Sites*

¹⁹ HCC Highways' detailed comments can be found in **Appendix 2**

Criterion	Score (Impact)	Justification
		<p>The site is considered to raise significant concerns which are likely to attract highway objections.</p> <p>Over the last five years there have been a total of 12 collisions resulting in slight injuries on Marford Road. Five of these collisions occurred at the intersection of Marford Road and Green Lanes. This indicates there may be existing safety issues at this junction. There have been four collisions on Green Lanes directly adjacent to the site, two of which resulted in slight injuries and two of which resulted in serious injuries.</p> <p>There is a school and church located to east in Lemsford Village. More information is required on the proposed routing of HGV vehicles to assess whether there will be any safety implications for these existing land uses.</p> <p>Detailed analysis and suggested mitigation measures will need to accompany a planning application, in addition to a site specific Transport Assessment.</p>

Site Selection Proforma: MLPCS002

Site Information

Site Name: Land at Salisbury Hall		Site ID Number: MLPCS002	
			
Site Contact:	Landowner and Operator – Tarmac Aggregates	Site Visit Date and Time:	30/06/2016 - Afternoon
Site Area:	14.4ha	Attendees:	Jonny Hill
Central Grid Ref.:	203102 519392	Planning History:	The site has no relevant planning history.
District:	Hertsmere		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls within Resource Block D of IMAU Report 71.</p> <p>This is confirmed by the digital BGS Resource Map which shows the whole site to be within an area of 'concealed glacio-fluvial deposits'.</p> <p>The BGS superficial geology map shows these to be part of the pre-glacial Kesgrave Catchment Subgroup, which is <i>not</i> overlain (concealed) by other deposits.</p> <p>The site lies at the feather-edge of the resource and is thus likely to be thinner towards the south-east.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	860,000t	<p>Tonnage is based on drilling and testing by the operator. The figure equates to 537,500 m³, which implies an average thickness of 5.1m across the 10.6-hectare area of working.</p> <p>Nearest IMAU borehole suggests 6.8m of mineral below 3.9 m of overburden.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Informed by borehole investigation & proposal to work as a satellite site to Tyttenhanger.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Dust and water impacts would be mitigated.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Proposed by operator.

Agenda Pack 185 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Operator is landowner. Available within 11-15 years.
<ul style="list-style-type: none"> Other points to note: 		Annual output indicated as 500,000 tonnes, so it would be a very short-lived site (2 years proposed), but this is entirely feasible, as mineral would be processed at Tyttenhanger Quarry.
Adequacy of Supporting Information		Information is adequate to support the proposed allocation.
Suitability for consideration as a Specific Site allocation, on resource grounds		Yes: This is a fully viable and properly assessed proposal.

Sieve 3

Criterion	Score	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within in close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within a Secondary A aquifer.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas to known to include BAP species.
BMV land	Medium	Approximately 95% of the site is located within Grade 2 agricultural land with the remaining 5% located within Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains a small water body within its centre.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for

Agenda Pack 186 of 454



Criterion	Score	Justification
		mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Low	The site is not located with a Source Protection Zone.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located approximately 120m to the south of London Colney and 520m to the east of Old Cottages. The site is not located within close proximity to or within a site allocation of the proposed Hertsmere Site Allocations and Development Management Policies Plan (November 2016).
Recreation	High	The site contains a PRow (No: 027) and is immediately adjacent to a number of other PRows (No: 013 and 042). The Watford Football Club Training Ground is located immediately to the west of the site.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The Watford Football Club Training Ground is located immediately to the west of the site and the Salisbury Hall and other residential properties are located immediately to the south of the site. The Salisbury Lodge Cattery is also located immediately adjacent to the site.
Sustainable transport	High	The site is not located within close proximity to

Agenda Pack 187 of 454

Criterion	Score	Justification
		the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Medium	The site is located within close proximity to the strategic road network (M25 and A1081) but is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objectives 1.1 (biodiversity protection), 4.1 (water quality), 2.1 (cultural heritage) and 3.1 (landscape) and significant negative effects against SA objective 9.2 (recreation). Therefore this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the lack of valued features and proximity to existing built development and the ability to mitigate impacts which could be achieved through screening. Restoration proposals could also strengthen the existing degraded landscape pattern and hedgerow structure.</p> <p>There are also a limited number of residential properties in the vicinity of the site, of which only two properties along Bell Lane have open views. The impacts of mineral extraction could be mitigated by screening without losing existing visual amenity.</p> <p>Mineral extraction on the site is likely to affect a small number of people using the footpath across the site.</p>		
Summary of HCC Highways Comments	Score:	
<p>The site is considered to raise significant concerns which are likely to attract highway objections.</p> <p>The countywide strategic highway model, COMET, highlights the A1087/B556 junction as having existing capacity problems. It is suggested by the site promoter that HGV transportation would use the B556 and A414 meaning that all HGV movements would be directed through the A1087/B556 roundabout which serves all the vehicles entering and exiting the Colney Fields Shopping Park.</p> <p>Detailed analysis and suggested mitigation measures will need to accompany a planning application, in addition to a site specific Transport Assessment.</p>		

Site Selection Proforma: MLPCS003

Site Information

Site Name: Land at Ware Park		Site ID Number: MLPCS003	
			
Site Contact:	Agent – D. K. Symes	Site Visit Date and Time:	29/06/16 – Afternoon
Site Area:	35.5ha	Attendees:	Jonny Hill
Central Grid Ref.:	5325 2150	Planning History:	Two mineral planning applications were submitted in 1990 (3/0959-90) and 1995 (3/1653-95) both of which were withdrawn. The site is currently being considered for mineral extraction under planning application 3/0770-16.
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes (mostly)	<p>Much of the site falls within Resource Block B of IMAU Report 112, but part of it falls outside that area and has no mineral.</p> <p>This is confirmed by the digital BGS Resource Map which identifies the resource as 'glacio fluvial deposits' which are shown as being concealed within the northern part of the site.</p> <p>The BGS superficial geology map shows the deposits to be part of the pre-glacial Kesgrave Catchment Subgroup, which are not overlain (concealed) by other deposits (but which are absent in the eastern part of the site).</p> <p>The majority of site forms part of adopted MLP 2007 Preferred Area 2 and within the Hertfordshire Mineral Resource Block 11.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	2.6mt	<p>Borehole data has been provided to support the reserve calculation.</p> <p>The estimated tonnage equates to 1.625 million m³, which implies an average worked thickness of 6.5m across the 25-hectare area of working.</p> <p>IMAU boreholes indicate up to 10.3m of mineral but highly variable.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Evidenced by details contained within the planning application and Environmental Statement.

Agenda Pack 190 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Evidenced by details contained within the Environmental Statement.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Ingrebourne Valley Limited (site restoration company which also extracts aggregates).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Proposed by Agent on behalf of landowner. Available within 1-5 years.
<ul style="list-style-type: none"> Other points to note: 		PP applied for (3/0770-16). Proposed to extract 200,000 – 250,000tpa. High risk of sterilisation by urban expansion if not extracted very soon.
Adequacy of Supporting Information		Information (including that contained within the planning application and environmental statement) is adequate to support the proposal.
Suitability for consideration as a Specific Site allocation, on resource grounds		Yes: This is a fully viable and properly assessed proposal.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	High	The site is located immediately adjacent to one area of ancient woodland. A second area of ancient woodland is located to the south of the site on the opposite side of Sacombe Road. However, the restoration of the site proposes woodland and a small area of wetland which could have positive effects on ecological connectivity of the woodland. However, this is uncertain as details will not be known until the planning application stage.
Aquifers	Medium	The site is located within a Secondary A aquifer.
BAP Priority Species or Habitats	Positive	The site is located immediately adjacent to two BAP habitats and a third BAP habitat is located to the south of the site on the opposite side of Sacombe Road. The restoration of the site proposes woodland and a small area of wetland which could have

Agenda Pack 191 of 454

Criterion	Score (Impact)	Justification
		positive effects on nature conservation and BAP priority species and/or habitats. However, this is uncertain as details will not be known until the planning application stage.
BMV land	Medium	The whole of the site is located within Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites. Rickney's Quarry is located in close proximity; however, this site has been mothballed and is no longer in operation.
Ecological status of water bodies	Low	The site is not located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	High	Approximately 45% of the site is located within Source Protection Zone 1, 20% within Source Protection Zone 2 and 35% within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a mineral operator.
Landscape designations	Low	The site is not located within a landscape

Agenda Pack 192 of 454

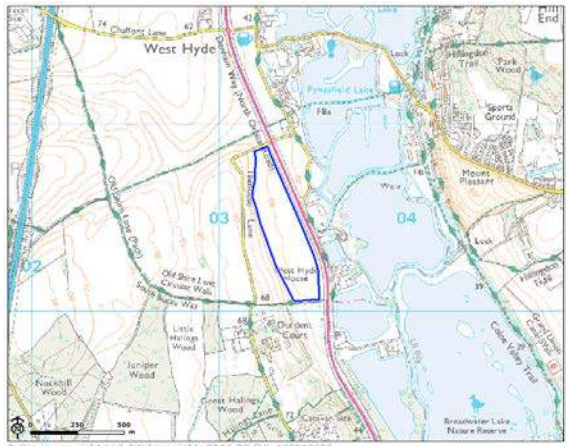

Criterion	Score (Impact)	Justification
		designation.
Local Nature Reserves and Local Wildlife Sites	Positive	<p>The site is located on the opposite side of the road to the Waterford Heath Local Nature Reserve and immediately adjacent a Local Wildlife Site (Rickney's Quarry) with records of at least one Hertfordshire Red List butterfly species with evidence that the site is suitable to maintain breeding populations. The site is also immediately adjacent to St. Johns Wood (Rickneys Quarry) Local Wildlife Site.</p> <p>However, the restoration of the site proposes woodland and a small area of wetland which could have positive effects on nature conservation. However, this is uncertain as details will not be known until the planning application stage.</p>
Proximity of allocated residential or built development	Medium	<p>The site is located immediately to the north of Hertford and approximately 400m to the east of Waterford, 680m south of Crouchfield and 700m west of Ware Park.</p> <p>The site is not located within close proximity to or within a site allocation of the East Herts Local Plan 2007. However, consultation on a new pre-submission version of the Plan took place between November and December 2016. This version of the Plan includes Draft Policy Hert4 – a preferred residential development in close proximity to the site.</p>
Recreation	High	<p>The site contains a PRoW (no: 001) in the central eastern area of the site and there are others adjacent to the site including 013 and 003 to the north, 013 to the east and 009 to the south.</p> <p>The site is also located on the opposite side of the road to the Waterford Heath Local Nature Reserve.</p>
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use, woodland and a small area of wetland.
Sensitive land uses	High	The site is located immediately to the north of Hertford and a number of properties along Sacombe Road. The site is also located approximately 70m to the west of a property along Wadesmill Road.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.

Agenda Pack 193 of 454

Criterion	Score (Impact)	Justification
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objectives 3.1 (landscape) and 9.1 (health & amenity) and significant negative effects against SA objectives 1.1 (biodiversity), 4.1 (Water), 9.2 (recreation) and 1.3 (air pollution of ecological sites). This assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction as the site is largely enclosed although its openness to the east could result in an adverse impact on the unified rural character of the wider river valley. That said, impacts could be mitigated by screening and extraction operations being set back from the ancient woodland.</p> <p>Residential properties are located to the south, however, views of the site are screened. Properties along Sacombe Road and from the footpath along the western boundary would have views of the site but they could be mitigated through planting.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>The site promoter suggests access directly onto Wadesmill Road with all traffic to and from the north via the A602 – the majority of vehicle movements will be via A10/A602 junction. Wadesmill Road is a numbered classified secondary distributor road with a speed limit of 60mph and a 7.5 tonne weight limit.</p> <p>A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.</p> <p>The site is also under consideration for a mineral planning application (3/0770-16) and HCC Highways have provided comments requesting further details. HCC will assess the application further once the additional information has been submitted.</p>		

Site Selection Proforma: MLPCS004

Site Information

Site Name: Land at Pynesfield		Site ID Number: MLPCS004	
			
Site Contact:	Agent – D. K. Symes	Site Visit Date and Time:	30/06/2016 – Afternoon
Site Area:	14.5ha	Attendees:	Jonny Hill
Central Grid Ref.:	5035 1905	Planning History:	The site has been subject to two minerals planning application both of which were refused (8/0761-13 ²⁰ and 8/1254-15 ²¹). The site is now the subject of an ongoing Appeal (Case ref: APP/M1900/W/16/3153814).
District:	Three Rivers		
Mineral to extract:	Sand and Gravel		

²⁰ Site refused due to sensitive principal aquifer; inappropriate inert infill given location in SPZ1; silt lagoon would be risk to quantity and quality of groundwater; and inappropriate development in the Green Belt.

²¹ Site refused due to its location outside the preferred area and the use of clay as the restoration material has a higher risk of impact of flooding (due to its lower permeability).

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	The site falls within an area 'not assessed' on IMAU Report 12, but most (though not all) of the area is identified as a resource ('river terrace deposits') on the digital BGS Resource Map (and as Shepperton Gravel on the BGS superficial geology map).
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	300,000 to 350,000t	<p>Borehole data provided – mineral thickness ranges from 2.6 to 7.7m.</p> <p>.The higher estimated tonnage equates to 218,750 m³, which implies an average worked thickness of 2.4m across the 9-hectare area of working (allowing for reduced extraction at margins of excavation).</p> <p>The mineral reserve lies principally beneath the water table.</p> <p>No relevant IMAU boreholes are available to compare with this indication.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	<p>Evidenced by planning application. The site would not be viable on its own but would be if worked in conjunction with the nearby quarry at Denham Park Farm.</p> <p>Note that restoration relies upon import of reclamation materials from Denham Park Farm quarry – but this has been allowed for and does not affect economic viability.</p>

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Evidenced by planning application.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Ingrebourne / Harleyford Ltd.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Proposed by landowner's Agent. Landowner is part of Wm Boyer & Sons – a mineral operating company- and there is an agreement in place for the land to be worked for minerals. Available within 1 year. Needs to be extracted before sterilisation by HS2.
<ul style="list-style-type: none"> Other points to note: 		PP applied for (8/1254-15) but refused. Proposed to extract 125,000 tonnes p.a.
Adequacy of Supporting Information		Information is adequate to support the proposed allocation.
Suitability for consideration as a Specific Site allocation, on resource grounds		Yes, although the planning application notes that the site will soon be sterilised by HS2, so the allocation would only be worthwhile if the site can be worked very soon.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within a Secondary A aquifer.
BAP Priority Species or Habitats	Positive	The site is not located within any BAP habitats or areas to known to include BAP species. The proposed restoration includes the creation of a wetland sustainable drainage scheme which could have positive effects on BAP priority species and/or habitats. However, this is uncertain as details will not be known until the planning application stage.
BMV land	Medium	The whole of the site is located within Grade 2 agricultural land.

Agenda Pack 197 of 454

Criterion	Score (Impact)	Justification
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites. However, Denham Park Farm, located in the neighbouring County of Buckinghamshire is in close proximity.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	High	The whole of the site is located within Source Protection Zone 1.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Positive	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site. The proposed restoration includes the creation of a wetland sustainable drainage scheme which could have positive effects on nature conservation. However, this is uncertain as details will not be known until the planning

Agenda Pack 198 of 454



Criterion	Score (Impact)	Justification
		application stage.
Proximity of allocated residential or built development	Medium	The site is located approximately 110m to the south of West Hyde. The site is not located within close proximity to or within a site allocation of the Three Rivers District Local Plan 2014.
Recreation	Medium	The site does not contain any PRow, however, it is located within close proximity to a number of PRows (No's: 002 and 004).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use and a wetland sustainable drainage scheme.
Sensitive land uses	Medium	The site is located approximately 85m to the west of a property along Old Uxbridge Road. However, it should be noted that the A412 separates the property from the site.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Low	The site is located adjacent to the strategic road network (A412) but is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objectives 9.2 (recreation loss) and 3.1 (landscape). In addition, the SA identifies significant negative effects against SA objectives 1.1 (biodiversity protection) and 1.3 (biodiversity air quality effects). Therefore, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the lack of valued features and proximity to existing and potential transport infrastructure. The area is effectively screened by topography to the west and boundary vegetation to the south and east. Impacts could be fully mitigated through screening, particularly along Tilehouse Lane without adversely changing the character of the landscape.</p> <p>There are also very few properties in the vicinity of the site and none have open views of the site. Furthermore, there is no visibility from recreational routes or from the lakes in the Colne Valley.</p>		
Summary of HCC Highways Comments		Score:
The proposed site has no fundamental highway objection in principle.		

Agenda Pack 199 of 454

Criterion	Score (Impact)	Justification
		<p>Access to the site is from Tilehouse Lane which has a junction access to the A412. Tilehouse Lane is a rural access lane with narrow width and hedges either side. The A412 is known locally as the North Orbital Road and connects to the M40 and M25.</p> <p>HCC Highways commented on planning application 8/1254-15 (which was refused) and had no objection subject to conditions regarding vehicle restrictions, the impact of construction vehicles onto the local area and the agreement of a routing agreement being imposed.</p> <p>Mitigation measures identified in a site specific Transport Assessment may still be required though.</p>

Site Selection Proforma: MLPCS005

Site Information

Site Name: Nashe's and Fairfold's Farm		Site ID Number: MLPCS005	
			
Site Contact:	Agent – D. K. Symes	Site Visit Date and Time:	30/06/2016 - Afternoon
Site Area:	40.9ha	Attendees:	Jonny Hill
Central Grid Ref.:	5185 2094	Planning History:	The site has no relevant planning history.
District:	St. Albans		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> • Within Resource Area? 	Yes	<p>All but the north-west corner of the site falls within Resource Block C of IMAU Report 71.</p> <p>This is confirmed by the digital BGS Resource Map which identifies the material as 'concealed glacio-fluvial resources'.</p> <p>The BGS superficial geology map shows these to be part of the pre-glacial Kesgrave Catchment Subgroup which are not overlain (concealed) by other deposits.</p>
<ul style="list-style-type: none"> • Tonnage of Reserves Calculated? 	1.25mt	<p>No evidence of calculation of reserves. Estimated tonnage equates to 781,250 m³, which implies an average thickness of 3.1m across the 25-hectare area of working.</p> <p>IMAU Boreholes at edges of site show up to 13m of mineral below up to 2.6m of overburden.</p>
<ul style="list-style-type: none"> • Economic Viability Assessed by Proposer? 	Partly	Reserve is claimed to be large enough to be worked independently or as an extension to nearby Hatfield quarry. But no evidence to back this up.
<ul style="list-style-type: none"> • Economic Viability Allows for Mitigation? 	Partly allowed for	Consideration appears to be limited to the examples given on form. Response to those to be achieved through site design. No other mitigation needs identified. This may be too simplistic – especially in view of the significance of the underlying Chalk aquifer, and needs to be supported by evidence. Additional monitoring/

Agenda Pack 202 of 454

Criterion	Yes/No	Justification
		mitigation costs might need to be allowed for.
• Deliverability: operator willing?	Yes	Wm. Boyer & Sons Ltd.
• Deliverability: landowner willing?	Yes	Landowner is the operator. Available within 1 – 5 years.
• Other points to note:		Adjacent to Hatfield Quarry & Land at Suttons. Proposed to extract 150,000 – 200,000tpa over a period of about 10 years, or less.
Adequacy of Supporting Information		Information is currently inadequate to support the proposed allocation. Limited evidence has been provided of environmental impact mitigation. Evidence is also needed to support the reserve calculation. Proposal has been withdrawn.
Suitability for consideration as a Specific Site allocation, on resource grounds		Proposal has been withdrawn.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The site is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	High	The site is located immediately adjacent to one area of ancient woodland.
Aquifers	Medium	The site is located within a Secondary Undifferentiated aquifer.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas known to include BAP species.
BMV land	Medium	The whole of the site is located within Grade 2 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the

Agenda Pack 203 of 454

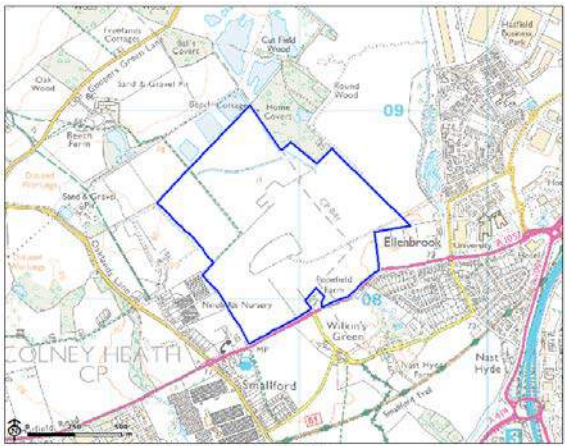

Criterion	Score (Impact)	Justification
		planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Medium	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, due to the open nature of the site the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The whole of the site is located within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is located immediately adjacent to Oak's Wood and Hook's Wood ancient woodland which are Local Wildlife Sites.
Proximity of allocated residential or built development	Low	The site is not located within 250m of an existing settlement nor is it located within close proximity to or within a site allocation of St. Albans District Local Plan 1994 or St. Albans draft Strategic Local Plan 2016.
Recreation	High	The site contains a PRoW (No: 020) and is immediately adjacent to a number of other PRoWs including No's 054 and 186.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored principally back to agricultural use.
Sensitive land uses	Medium	The site is located on the opposite side of Nashe's Farm Lane where two properties are located.

Agenda Pack 204 of 454

Criterion	Score (Impact)	Justification
		The site is also located approximately 90m to the north of Oak Farm.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	<p>The SA of this site option identifies a minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape), 4.1 (water quality) and 9.4 (aerodrome safety). The SA identifies significant negative effects against SA objectives 1.1 (biodiversity) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p> <p>Site MLPCS005 has since been withdrawn and therefore has not been recommended as a potential site for inclusion in the plan.</p>	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have moderate-high sensitivity to mineral extraction as the site has an open nature, is elevated above the surrounding landscape and the area has a tranquil rural character. That said, some impacts could be mitigated through screening and the landscape structure could be improved through restoration of the hedgerow network.</p> <p>The site is also visible to a large number of residents in the Jersey Farm area of St. Albans. Due to the rising topography of the site, these impacts cannot be fully mitigated.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to raise significant concerns which are likely to attract highway objections.</p> <p>The access is proposed either direct to House Lane or via the adjacent Hatfield Quarry. House Lane is a local distributor road subject to a 30mph speed limit and a weight restriction of 7.5 tonnes. House Lane is narrow and not suitable for HGV movements.</p> <p>More information is required for HCC Highways to assess the site including a Transport Assessment detailing the proposed trip generation and the impact on the network (including the routing of HGV movements). Additionally, information on the proposed access arrangement will be required so that HCC Highways can assess its feasibility.</p>		

Site Selection Proforma: MLPCS006

Site Information

Site Name: Hatfield Aerodrome		Site ID Number: MLPCS006	
			
Site Contact:	Agent – SLR Consulting	Site Visit Date and Time:	30/06/2016 – Afternoon
Site Area:	86.6ha	Attendees:	Jonny Hill
Central Grid Ref.:	208269 519951	Planning History:	<p>Part of the site has been subject to four mineral planning applications, two of which were refused (6/0299-78²² and 5/0620/78²³) and two of which were withdrawn (6-0221-81 and 5/0509-81).</p> <p>The site is currently being considered for mineral extraction under planning application 5/0394-16.</p>
District:	St. Albans and Welwyn Hatfield		
Mineral to extract:	Sand and Gravel		

²² Site refused due to the land falling within an agricultural priority area – Grade 1 and Grade 2 in the Agricultural Land Classification.

²³ No decision notice, although the decision for 6/0299-78 also refers to 5/0620-78.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	Yes	A small wedge along the northern boundary of the site has been worked. However, as it's so small it is not considered to be a constraint to the extraction of mineral from this site.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The eastern side of the site falls within Resource Block A of IMAU Report 67, whilst the western side falls within Resource Block C of IMAU Report 71 (effectively a continuation of the same resource).</p> <p>This is confirmed by the digital BGS resource map which shows virtually the whole of the site to be within an area of 'concealed glacio-fluvial deposits', overlain (along a former watercourse) by 'sub-alluvial river terrace deposits'.</p> <p>The BGS superficial geology map indicates the main, lower resource to be part of the pre-glacial Kesgrave Catchment Subgroup, overlain ('concealed') in this area by glacial till.</p> <p>The site falls within the Adopted MLP 2007 Preferred Area 1 and the Hertfordshire Mineral Resource Block 15.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	8mt	<p>No calculations supplied – but borehole logs are provided in Appendix 6-1 of the Environmental Statement, confirming two layers of sand & gravel with intervening layer of clayey interburden.</p> <p>The estimated tonnage equates to 5.0 million</p>

Agenda Pack 207 of 454

Criterion	Yes/No	Justification
		<p>m³, which implies an average worked thickness of 10.0 m across the 50-hectare area of working.</p> <p>This may be optimistic given that IMAU Boreholes indicate 6.7 to 9.5 m of glacio-fluvial sand & gravel below 0.6 to 5.4m of overburden (glacial till).</p> <p>Most of the reserve lies below the water table.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Evidenced by planning application. Restoration dependent on import of inert waste, but this is allowed for.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Evidenced by planning application.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Brett Aggregates.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Operator has an option to lease the land. Available within 1 – 15+ years.
<ul style="list-style-type: none"> Other points to note: 		<p>Currently an allocated site in the 2007 MLP. PP applied for (5/0394-16). Proposed to extract approx. 250,000 tpa over 30 years.</p>
Adequacy of Supporting Information		Information is adequate to support the proposed allocation.
Suitability for consideration as a Specific Site allocation, on resource grounds		Yes: This is a fully viable and properly assessed proposal.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The site is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Positive	<p>The site contains deciduous woodland and additional habitats.</p> <p>However, the proposed restoration includes</p>

Agenda Pack 208 of 454

Criterion	Score (Impact)	Justification
		the creation of grassland and wetland which could have positive effects on BAP priority habitats and/ or species. However, this is uncertain as details will not be known until the planning application stage.
BMV land	Medium	Approximately 70% of the site is located within Grade 2 and 15% is located within Grade 3 agricultural land. The remaining 15% is located within non-agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains two watercourses.
Flood risk	Positive	The site is not located within Flood Risk Zones 3a or 3b. It is however located within Flood Risk Zone 2. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 60% of the site is located within a Source Protection Zone 3 with the remaining 40% located within Source Protection Zone 2.
Heritage designations	Medium	The site is located immediately adjacent to four Grade II listed buildings.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a mineral operator.

Agenda Pack 209 of 454

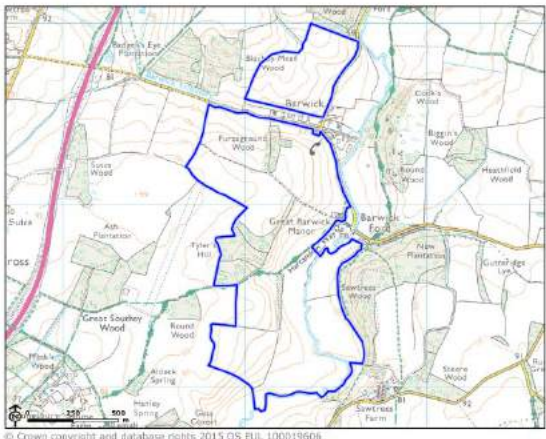

Criterion	Score (Impact)	Justification
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Positive	The site is located immediately adjacent to the Home Covert and Round Wood Local Wildlife Site. However, the proposed restoration includes the creation of grassland and wetland which could have positive effects on nature conservation. However, this is uncertain as details will not be known until the planning application stage.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Hatfield and Smallford. The site is not located within close proximity to or within a site allocation of St. Albans District Local Plan 1994, St. Albans draft Strategic Local Plan 2016, the Welwyn Hatfield District Local Plan 2005 or the Welwyn Hatfield Proposed Submission Local Plan 2016.
Recreation	High	The site contains two PRoW (No's:014 and 015) and is within close proximity of two additional PRoW (No's: 012 and 062) and the Hertfordshire Sports Village. Furthermore, the site is used for informal recreation.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored to a combination of nature conservation (creation of grassland and wetland) and public open space (country park).
Sensitive land uses	High	The site is located immediately adjacent to Hatfield, Smallford and Popefield Farm.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Low	The site is located immediately adjacent to the strategic road network (A1057) but is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objectives 2.1 (heritage), 4.1 (Water) and 9.4 (aerodrome safety) and significant negative effects against SA objective 1.1 (biodiversity protection), 1.3 (Biodiversity and air quality), 8.4 (agricultural land) and 9.2 (recreation). In	

Agenda Pack 210 of 454

Criterion	Score (Impact)	Justification
		<p>addition, the SA also identifies a minor positive effect (with some uncertainty) against SA objective 6.2 (flood alleviation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>
<p>Summary of Landscape and Visual Sensitivity Comments</p>		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to its former industrial use. The area is flat and heavily screened and post-operation restoration could improve the existing landscape character.</p> <p>The boundary vegetation screens the site from the small number of properties within the vicinity of the site. Any impacts can be fully mitigated through screening without an adverse impact on visual amenity.</p>		
<p>Summary of HCC Highways Comments</p>		<p>Score:</p>
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>The site is currently subject to a minerals planning application (5/0394-16) and the site promoter has stated that the majority of HGV traffic would route to the east towards the A1(M). Access would be on to the A1057 and it is understood that a Road Safety Audit (RSA) is being undertaken. HCC Highways will provide further comment on the application once the RSA has been submitted and reviewed.</p> <p>A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.</p>		

Site Selection Proforma: MLPCS007

Site Information

Site Name: Barwick		Site ID Number: MLPCS007	
			
Site Contact:	Landowner	Site Visit Date and Time:	29/06/2016 - Afternoon
Site Area:	120.3 ha	Attendees:	Jonny Hill
Central Grid Ref.:	218817 538112	Planning History:	Part of the site has been subject to a number of planning applications for mineral extraction. Four of which were refused (E-2097-66 ²⁴ , E-1950-64 ²⁵ , E-1572-70 ²⁶ and E/2493-65 ²⁷), one of which was permitted (E/1387-56) and one of which was withdrawn (E/1531-60).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

²⁴ Site refused due to its location forming an attractive feature of the Rib Valley; gravel extraction would destroy the hillside and land formation which subsequent tree planting would not restore; the gravel workings, plant and machinery could not effectively be screened from view; the rural character of local roads and the character and setting of Barwick Ford would be adversely affected by their use, the gravel lorries and associated congestion; and there is insufficient evidence to show that there is a demand for this material which cannot be adequately met by other sources.

²⁵ Same reasoning as application: E-2097-66.

²⁶ Same reasoning as application: E-2097-66.

²⁷ Same reasoning as application: E-2097-66.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Partly	<p>Some areas within the western and central parts of the site fall within Resource Block B of IMAU Report 112, whilst areas within the eastern part of the site fall within Resource Block C of the same report, with significant intervening areas of non-mineral. Note that the eastern areas are now excluded from the revised proposal.</p> <p>The resource areas are confirmed by the digital BGS Resource Map which shows these to be mostly glacio-fluvial deposits, concealed in places, and overlain by more recent 'sub-alluvial river terrace deposits beneath the floodplain of the River Rib, which bisects the site from north to south.</p> <p>The more detailed BGS superficial geology map confirms the lower resource to be glacio-fluvial sand & gravel which is overlain in places and interbedded in others with glacial till deposits. Areas of non-mineral largely correspond to deposits of glacio-lacustrine clay and silt.</p> <p>The site falls partly within the Hertfordshire Mineral Resource Block 9.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	Estimated at 5mt	<p>No boreholes have been drilled, reserve estimate is based only on applicant's experience.</p> <p>IMAU boreholes in western part indicate up to 6.4 m of glacio-fluvial sand & gravel beneath up to 10.6m of overburden (glacial till).</p>

Agenda Pack 213 of 454

Criterion	Yes/No	Justification
		IMAU boreholes in eastern part indicate much thicker deposits (8.4 to 11.6m of sand & gravel beneath much thinner or no overburden), but those resources are now excluded from the new boundary.
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	No	Very limited consideration has been given – no details of resource assessment and no operator involvement, although restoration would <u>not</u> be dependent on landfilling.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	No	No impacts anticipated but no studies yet done. Original form states only that studies and advice from an aggregates operator would be required.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Not known	No operator yet involved.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Proposed by landowner's employee.
<ul style="list-style-type: none"> Other points to note: 	Part of site previously permitted (E/1387-56).	
Adequacy of Supporting Information	Information is currently inadequate to support proposed allocation. Limited information has been provided.	
Suitability for consideration as a Specific Site allocation, on resource grounds	No.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	High	The site is immediately adjacent to an area of ancient woodland.
Aquifers	Medium	The site is located with Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Medium	The site contains two areas of deciduous woodland and one area of additional BAP habitat. The site is also located immediately adjacent to additional areas of deciduous woodland.
BMV land	Medium	The majority of the site is located within Grade 3 agricultural land with the remaining part

Agenda Pack 214 of 454

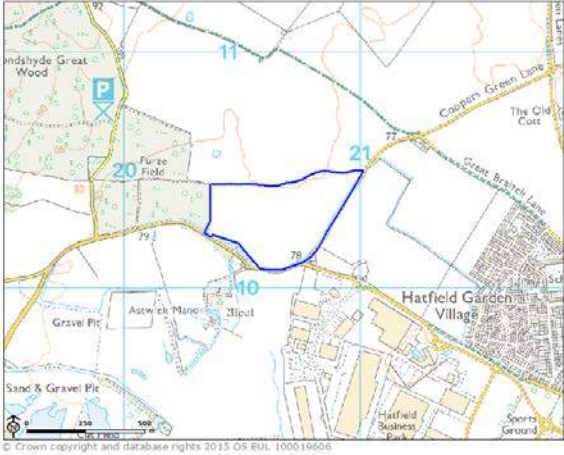

Criterion	Score (Impact)	Justification
		located in Grade 2.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains one watercourse within the site, the River Rib.
Flood risk	Positive	There are areas of Flood Zone 2 within this site. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is not located within the Green Belt.
Groundwater vulnerability	High	The site lies within SPZ1 and SPZ2.
Heritage designations	Medium	The site is located immediately adjacent to two Grade II* and four Grade II listed buildings.
International and national ecological designations	High	The site is immediately adjacent to Plashes Wood SSSI.
Land ownership	Medium	The site is currently not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is located within Great Barwick Manor Area Local Wildlife Site. The site is also immediately adjacent to Sawtrees Wood & New Plantation Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Barwick. The site is not located within close proximity to or within a site allocation in East Hertfordshire's Local Plan 2007.
Recreation	High	The site contains two PRow including No's 045 and 060 and is immediately adjacent to a number of other PRow's including 011 and 062.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored to agriculture, if

Agenda Pack 215 of 454

Criterion	Score (Impact)	Justification
		appropriate.
Sensitive land uses	High	The site is located immediately adjacent to Barwick and properties immediately north of Sawtrees ancient woodland (also within close proximity to Barwick Ford).
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Medium	The site is located approximately 680m to the east of the strategic road network (A10) but is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	<p>The SA of this site option identifies a minor negative effect against SA objective 2.1 (heritage), 7.1 (recycling), 8.4 (agricultural land) and 9.1 (health and wellbeing).</p> <p>Significant negative effects were identified against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air quality effects), 4.1 (water), 9.2 (recreation) and 3.1 (landscape). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.</p>	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have moderate-high sensitivity to mineral extraction due to the varied landform and land cover pattern and its sense of tranquillity. Mineral operations are likely to adversely affect the distinctive rural character of the area.</p> <p>There are also a number of local residents who will have open views of the site and users of the network of footpaths that cross or run adjacent to the site will also have views. Impacts cannot be fully mitigated without blocking views over the site which are currently enjoyed by the residents and footpath users.</p>		
Summary of HCC Highways Comments		Score:
<p>The site has not been assessed by HCC Highways as no information has provided on the proposed access points or HGV routing.</p> <p>Further detailed analysis will need to be provided in a Transport Assessment detailing the proposed trip generation and the impact on the network (including HGV routing). Additionally, information on the proposed access arrangement will be required so that HCC can assess its feasibility.</p>		

Site Selection Proforma: MLPCS008

Site Information

Site Name: Hatfield – Furze Field		Site ID Number: MLPCS008	
			
Site Contact:	Landowner and Operator – Cemex UK Operations Ltd	Site Visit Date and Time:	05/07/2016 – Afternoon
Site Area:	17.3	Attendees:	Jonny Hill
Central Grid Ref.:	520050 210408	Planning History:	Part of the site has been approved for mineral extraction under planning permissions 6/0439-03 and 6/1430-10.
District:	Welwyn Hatfield		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls within an area of concealed resources, in Resource Block F of IMAU Report 69.</p> <p>This is confirmed by the digital BGS Resource Map which indicates concealed glacio-fluvial deposits across the whole of the site.</p> <p>The BGS superficial geology map indicates that those deposits are part of the pre-glacial Kesgrave Catchment Subgroup and that they are overlain, throughout the site, by an overburden of glacial till.</p> <p>The site falls within the Hertfordshire Mineral Resource Block 13.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	532,000t	<p>No calculations or borehole data provided but the stated reserves equate to 326,875 m³, which implies an average workable thickness of only 1.98m across the 16.5-hectare area of working. (This tallies with the extraction being limited to only the upper gravels, above the water table – see below).</p> <p>An IMAU borehole adjoining the site indicates a full mineral thickness of 7.4m beneath 3.2m of overburden. This and other boreholes across IMAU Block F indicate an average mineral thickness of 5.4m, but this is highly variable and may include mineral beneath the water table.</p>

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	The site is proposed by a commercial operator (CEMEX UK) as a remote extension to their existing operation at Symondshyde, utilising their existing plant site located off Oaklands Lane. The site would be connected via an existing conveyor system beneath Coopers Green Lane.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Based on experience from their existing operations at Symondsgide, the operator considers that the site can be worked with limited environmental impact and would only work the upper gravels, to protect the groundwater.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	(CEMEX UK).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Land is owned by operator and would be available within the next 1 to 5 years, to succeed the existing operations at Symondshyde.
<ul style="list-style-type: none"> Other points to note: 	Adjoins Hatfield Quarry Planning application expected	
Adequacy of Supporting Information	Information is adequate to support the proposed allocation.	
Suitability for consideration as a Specific Site allocation, on resource grounds	Yes: This is a fully viable and properly assessed proposal.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The site is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity of any areas of ancient woodland.
Aquifers	Medium	The site is located within a Secondary Undifferentiated Aquifer.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas to known to include BAP species.
BMV land	Medium	Approximately 80% of the site is located within Grade 2 agricultural land with the remaining

Agenda Pack 219 of 454

Criterion	Score (Impact)	Justification
		20% located in non-agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Medium	The site is immediately adjacent to watercourses on all sides.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is located within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is located immediately adjacent to the Furze field Wood Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Hatfield and approximately 40m north of Astwick Manor. The site is not located within or in close proximity to a site allocation in the Welwyn Hatfield District Local Plan 2005. However, the

Agenda Pack 220 of 454

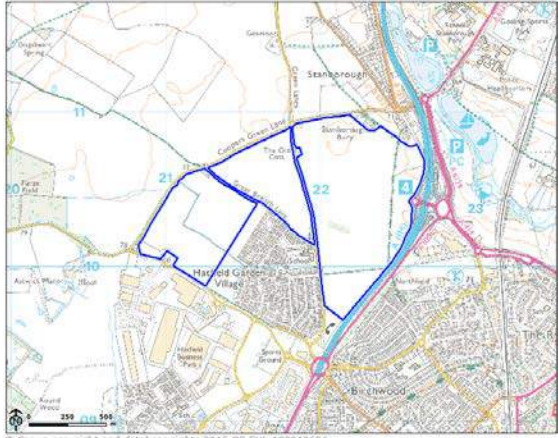

Criterion	Score (Impact)	Justification
		site is located within site allocation GTLAA09 and immediately adjacent proposed site allocation SDS5 of Welwyn Hatfield's Proposed Submission Local Plan (August 2016). It is understood that there is an agreement between Welwyn Hatfield District Council and the mineral operator to extract any mineral resource from the site prior to the development of GTLAA09.
Recreation	Medium	The site is located approximately 20m north of a PRoW.
Restoration	Medium	Once mineral extraction has finished onsite the land will be restored to 'landscaped conservation'. However, it is uncertain whether this would be a high quality restoration.
Sensitive land uses	High	The site is located immediately adjacent to Hatfield and approximately 40m north of Astwick Manor. The site is across Coopers Green Lane from a property which is located at the apex of Hatfield Avenue and Coppers Green Lane. The area of Hatfield the site is adjacent to is industrial/warehousing and not considered to be a sensitive land use.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area. However, it is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 9.4 (aerodrome safety), 9.2 (recreation loss), 3.1 (landscape) and 4.1 (water quality). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the flat landform and simple land cover pattern. There could be a slight adverse impact on the perceptual character of the landscape but the area is screened and impacts could be mitigated by woodland screening along the boundary and setting mineral extraction back from the ancient woodland.</p> <p>Woodland along the southern boundary will screen views from residential properties to the south and trees along the northern boundary will filter views from the footpath north of the site.</p>		

Agenda Pack 221 of 454

Criterion	Score (Impact)	Justification
Impacts could be fully mitigated by screen planting.		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>There is an existing access off Oaklands Lane. The site promoter proposes to extend the existing conveyor system to transport the minerals under Coopers Green Lane to the existing plant site located off Oaklands Lane. However, no information has been provided regarding the onward distribution of the minerals.</p> <p>Information on the proposed trip generation and trip distribution is required so that HCC Highways can assess what impact the additional HGV movements would have on the network.</p> <p>A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.</p>		

Site Selection Proforma: MLPCS009

Site Information

Site Name: Hatfield Quarry – Land adjoining Coopers Green Lane		Site ID Number: MLPCS009	
			
Site Contact:	Landowner and Operator – Cemex UK Operations Ltd	Site Visit Date and Time:	05/07/2016 – Afternoon
Site Area:	124.5	Attendees:	Jonny Hill
Central Grid Ref.:	210574 521685	Planning History:	The site has no relevant planning history.
District:	Welwyn Hatfield		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls within an area of mostly concealed resources, in Resource Block F of IMAU Report 69.</p> <p>This is confirmed by the digital BGS Resource Map which indicates mostly concealed glacio-fluvial deposits across the whole of the site.</p> <p>The BGS superficial geology map indicates those deposits to be part of the pre-glacial Kesgrave Catchment Subgroup and shows that they are overlain (concealed), except in the north-eastern part of the site, by an overburden of glacial till.</p> <p>The site falls within the Hertfordshire Mineral Resource Block 13.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	6.6mt	<p>No calculations or borehole data provided but the stated reserves equate to 4.125 million m³, which implies an average workable thickness of 5.57m across the anticipated 74-hectare area of working. (This tallies with the extraction being limited to only the upper gravels, above the water table – see below).</p> <p>IMAU boreholes within and adjoining the site indicate mineral thicknesses of 9.6 to 14.5m beneath only 0.8m of overburden, but with total interburden thicknesses of up to 4.9m. This and other boreholes across IMAU Block F indicate an average mineral thickness of 5.4m, but this is highly variable.</p>

Agenda Pack 224 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	The site is proposed by a commercial operator (CEMEX UK) as a further extension to their existing operation at Hatfield Quarry, utilising their existing plant site via a conveyor system.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Based on experience from their existing operations at Hatfield Quarry, the operator considers that the site can be worked with limited environmental impact and would only work the upper gravels, to protect the groundwater.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	(CEMEX UK).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes (negotiation ongoing)	The land is partly owned by the operator and partly in negotiation as an option for working. The site would be available within the next 1 to 5 years, to succeed the proposed Furze Field extraction area.
<ul style="list-style-type: none"> Other points to note: 	Adjoins Hatfield Quarry. The proposal is for the site to be worked at a rate of 400,000 to 600,000tpa over a period of 14 years – a substantial operation.	
Adequacy of Supporting Information	Information is adequate to support the proposed allocation.	
Suitability for consideration as a Specific Site allocation, on resource grounds	Yes: This is a fully viable and properly assessed proposal.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The site is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity of any areas of ancient woodland.
Aquifers	Medium	The site is located within a Secondary Undifferentiated aquifer.
BAP Priority Species or Habitats	Positive	The site is located immediately adjacent to one area of deciduous woodland. The proposed restoration includes the creation of wetland which could have positive effects on BAP priority habitats and/ or species.

Agenda Pack 225 of 454

Criterion	Score (Impact)	Justification
		However, this is uncertain as details will not be known until the planning application stage.
BMV land	Medium	Approximately 60% of the site is located within Grade 2 agricultural land, 30% in non-agricultural land and 10% is in Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains one watercourse and is adjacent to an additional watercourse.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 95% of the site is located within Source Protection Zone 3 with the remaining 5% located in Source Protection Zone 2.
Heritage designations	Medium	The site is immediately adjacent to one Grade II listed building.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	Part of the site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local

Agenda Pack 226 of 454

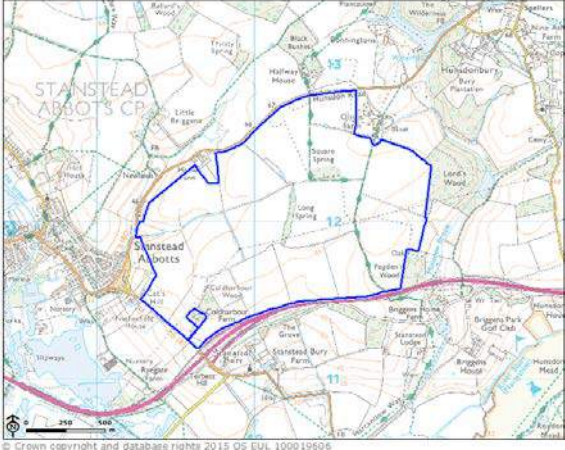

Criterion	Score (Impact)	Justification
		Wildlife Site.
Proximity of allocated residential or built development	Medium	<p>The site is located immediately adjacent to Hatfield and Stanborough.</p> <p>The site is not located within or in close proximity to a site allocation in the Welwyn Hatfield District Local Plan 2005. However, the site is located within site allocation SDS5 of Welwyn Hatfield's Proposed Submission Local Plan (August 2016). The proposed policy for this site (SP22) states that the developer must demonstrate the extent of the mineral onsite and the likelihood of extraction prior to the development of the site, therefore ensuring that any viable mineral resource is extracted first.</p>
Recreation	High	<p>The site contains two PRoW (no: 034 and 037) in the eastern section of the site and there are others located adjacent to the site (033, 041 and 042).</p> <p>The site is also immediately adjacent to two designated areas of open space.</p>
Restoration	Low	<p>Once mineral extraction has finished onsite the land will be restored to agriculture, with some wetland conservation.</p> <p>It is also suggested that a landform that would not prejudice potential future residential development would also be restored.</p>
Sensitive land uses	High	<p>The site is located immediately adjacent to Hatfield, Stanborough, The Old Cottage along Green Lanes, a number of properties along Great Braitch Lane and a property off Hatfield Avenue.</p> <p>It is also approximately 40m to the east of a property located at the junction of Hatfield Avenue and Coopers Green Lane.</p>
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Low	The site is located immediately adjacent to the strategic road network (A1(M)) and is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape), 4.1 (water quality) and 9.4 (aerodrome safety) and a significant negative	

Agenda Pack 227 of 454

Criterion	Score (Impact)	Justification
		effect against SA objective 1.1 (biodiversity protection), 1.3 (biodiversity air quality effects), 8.4 (agricultural land) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have moderate sensitivity to mineral extraction due to the flat landform and simple land cover pattern and the levels of existing development along the A1(m) corridor. Although the site is enclosed by high hedgerows along Cooper’s Green Lane, properties on the edge of Hatfield Garden Village has views of the site. Some of the impacts could be mitigated through woodland planting to the north of Hatfield Garden Village.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>There is an existing access off Oaklands Lane. The site promoter proposes to extend the existing conveyor system to transport the minerals under Coopers Green Lane to the existing plant site located off Oaklands Lane.</p> <p>Information on the proposed trip generation and trip distribution is required so that HCC Highways can assess what impact the additional HGV movements would have on the network.</p> <p>A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.</p>		

Site Selection Proforma: MLPCS010

Site Information

Site Name: The Briggens Estate		Site ID Number: MLPCS010	
			
Site Contact:	Agent - Savills	Site Visit Date and Time:	14/07/2016 – Morning
Site Area:	187.75	Attendees:	Jonny Hill
Central Grid Ref.:	5400 2120	Planning History:	The site has no relevant planning history.
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes, mostly	<p>The site straddles the boundary between Resource Block C of IMAU Report 112 and Resource Block B of IMAU report 46. The latter includes a significant area, within the north-eastern quadrant of the site, where the resource is shown to be overlain by 'excessive overburden'.</p> <p>The resource areas, and the area of excessive overburden, are confirmed by the digital BGS Resource Map. This shows the resource to comprise glacio-fluvial deposits – exposed in parts of the west but concealed over most of the site.</p> <p>The BGS superficial geology map indicates the resource deposits to be part of the pre-glacial Kesgrave Catchment Subgroup, in the west (but possibly of glacio-fluvial origin in the east) and shows that they are overlain, in most areas, by an overburden of glacial till.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	10.7mt	<p>Reserve calculation is based on a comprehensive exploratory investigation carried out by Tarmac. The reserve, which excludes the area of excessive overburden equates to 6.7 million m³ which implies an average mineral thickness of 5.97m across the 112-hectare site.</p> <p>IMAU boreholes within and at the edges of the site indicate 2.2 to 14.6m of sand & gravel beneath 1.5 to 14m of overburden.</p>

Agenda Pack 230 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Ground investigation has confirmed the area of excessive overburden thickness which will be used as the location of the plant site. The reserve calculation excludes that area.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Proposal acknowledges that there is a minor perched aquifer within the gravel deposit, but that dealing with this will not have any significant impact on the extraction.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Tarmac.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes (negotiation ongoing)	Terms for an Option Agreement are being finalised. Site will be available within 1-5 years.
<ul style="list-style-type: none"> Other points to note: 	It is proposed to work the site at a rate of 500,000tpa over a period of 22 years – a very substantial operation.	
Adequacy of Supporting Information	Information is adequate to support the proposed allocation.	
Suitability for consideration as a Specific Site allocation, on resource grounds	Yes: This is a fully viable and properly assessed proposal.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not within an Airport Safeguarding Zone.
Ancient Woodland	High	The site is immediately adjacent to Lords Wood Ancient Woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Positive	<p>The site contains two areas of deciduous woodland and is immediately adjacent to two additional areas of deciduous woodland.</p> <p>However, the proposed restoration includes the creation of land for nature conservation which could have positive effects on BAP priority habitats and/ or species. However, this is uncertain as details will not be known until the planning application stage.</p>

Criterion	Score (Impact)	Justification
BMV land	Medium	Approximately 60% of the site is located within Grade 2 agricultural land with 40% located within Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains one watercourse and a number of small water bodies.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 50% of the site is located within Source Protection Zone 2, 35% located within Source Protection Zone 3 and 15% is not located within any Source Protection Zone.
Heritage designations	Medium	The site is located immediately adjacent to Stanstead Abbots Conservation Area and across the B181 from four Grade II listed buildings. The site is also adjacent to Olives Farm which contains four Grade II listed buildings and one Grade II* listed building.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The terms for an option agreement with a mineral operator are being finalised.
Landscape designations	Low	The site is not located within a landscape

Agenda Pack 232 of 454

Criterion	Score (Impact)	Justification
		designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is immediately adjacent to Lord's Wood Key Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Hunsdon Road Cottages and approximately 110m east of Stanstead Abbots. The site is not located within or in close proximity to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	High	The site contains three PRoW (No's:002, 020 and 023). In addition, PRoW 022 is adjacent to the site.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored to agriculture, forestry and land to improve biodiversity.
Sensitive land uses	High	The site is located immediately adjacent to Hunsdon Road Cottages and surrounds Coldharbour Farm. The site is also located immediately adjacent to Home Farm, Olives Farm and properties along Cat's Hill. The site is also on the opposite side of the B181 where a number of additional properties are located.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Low	The site is located immediately adjacent to the strategic road network (A414) and is not located within or in close proximity to an Air Quality Management Area.


Summary of Sustainability Appraisal

Summary of SA Findings (incorporating HRA findings)

The SA of this site option identifies minor negative effects against SA objectives 4.1 (water) and 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air pollution effects), 2.1 (heritage), 8.4 (agricultural land) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.

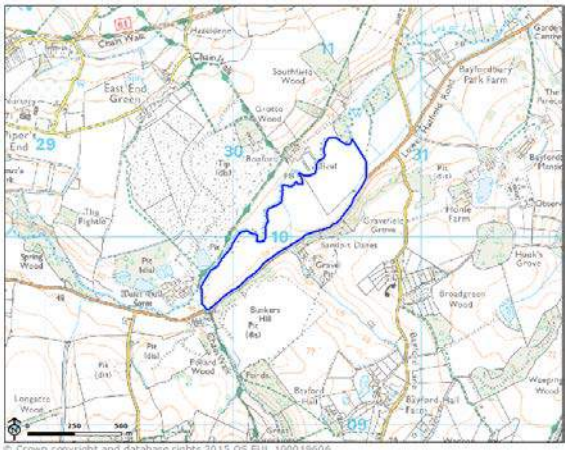

Summary of Landscape and Visual Sensitivity Comments

The site is considered to have **low-moderate sensitivity** to mineral extraction due to the gently undulating landform and its enclosure by both topography and existing vegetation. Impacts could be mitigated by safeguarding valued features within the site such as existing mature tree and woodland coppices. Post-operation restoration could provide the opportunity to increase the

Criterion	Score (Impact)	Justification
<p>quality of the hedged field boundaries.</p> <p>Although there is a very limited number of properties with open views over the site, the impacts of mineral extraction could be mitigated by screening without losing their existing visual amenity.</p> <p>Impacts on recreational users of the Harcamlow Way could be mitigated by woodland screening or a diversion of the footpath.</p> <p>Any impacts on visual amenity could be fully mitigated with woodland planting.</p>		
Summary of HCC Highways Comments		Score: 
<p>The site is considered to raise significant concerns which are likely to attract highway objections.</p> <p>The site is located immediately north of the A414 and the site promoter states that access is anticipated to taken via the B181 and HGV movements directed to the A414. The countywide strategic highway model, COMET, highlights the junction of the A414 and B181 as having existing capacity problems. Additionally, discussions with HCC Highways Network Management would be required regarding the HGV route and weight restrictions on the network.</p> <p>Detailed analysis and suggested mitigation measures will need to accompany a planning application, in addition to a site specific Transport Assessment.</p>		

Site Selection Proforma: MLPCS011

Site Information

Site Name: Water Hall Quarry – Farm Fields Area		Site ID Number: MLPCS011	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	29/06/2016 – Morning
Site Area:	24.3ha	Attendees:	Jonny Hill
Central Grid Ref.:	529900 209800	Planning History:	The site has been subject to five minerals planning applications four of which were refused (E/1246-67 ²⁸ , E/0827-68 ²⁹ , 3/0531-74 ³⁰ and 3/1236-01 ³¹) and one of which was withdrawn (3/0464-94).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

²⁸ Site refused on the grounds that the excavation of this valley floor would destroy the present scenic character of a particularly attractive reach of river and would be detrimental to the amenity of the area generally. In addition, there is no overriding need of the sand and gravel industry as a whole which would justify the granting of consent.

²⁹ Same reasoning as application E/1246-67.

³⁰ Same reasoning as application E/1246-67. Refusal appealed.

³¹ Site refused on the grounds that the proposal would not conserve the landscape of the Lea Valley; limit the capacity of the floodplain and increase the risk of flooding elsewhere; is premature and would prejudice the outcome of the Hertfordshire Minerals Local Plan Review; the proposed landform is not natural in appearance and does not sit harmoniously within the surrounding landscape; the proposal would be intrusive in the local landscape particularly during working, having a detrimental impact upon the setting of Roxford House and the bridge over Roxford Moat, listed buildings and Roxford Moat, scheduled ancient monument.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls partly within Resource Block D of IMAU Report 112 and partly within Resource Block B of IMAU Report 67.</p> <p>The resource areas are confirmed by the digital BGS Resource Map which shows sub-alluvial river terrace deposits over most of the site, flanked by (and probably underlain by) older glacio-fluvial deposits.</p> <p>The BGS superficial geology map indicates the sub-alluvial gravels to be part of the post-glacial Kempton Park Gravel Formation and shows the older deposits to be part of the pre-glacial Kesgrave Catchment Subgroup.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	956,000t	<p>No calculations are provided, although mineral operator seems to be involved and it is likely that an assessment will have been carried out. The indicated tonnage equates to 597,500 m³, implying an average mineral thickness of 4.15m over the expected 14.4-hectare area of working.</p> <p>An IMAU Borehole close to the site indicates 2.6m of mineral beneath 2.4m of overburden. This is less mineral than indicated by the operator, which is why more evidence on their resource assessment is needed.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on	A mineral operator is involved, (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but

Agenda Pack 236 of 454

Criterion	Yes/No	Justification
	industry involvement)	there is no clear evidence of this. Unlike adjoining proposals, this site is not dependent on inert waste to achieve restoration, but there is no evidence to show that the costs of habitat creation and aftercare have been adequately considered?.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Consideration has been given to hydraulic continuity between the gravels and the underlying Chalk aquifer, which will require a comprehensive scheme of monitoring and mitigation, and also to the mitigation of dust Impacts and the enhancement of biodiversity.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Mineral operator (of the existing Water Hall Quarry has 'overriding mineral working options'.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	No	Proposal made by site promoter's Agent. Landowner confirmation has been received for part of the site but the site has multiple landownership and no confirmation was received following request from HCC relating to part of the site. Site will be available any time after 1 year.
<ul style="list-style-type: none"> Other points to note: 		<p>Previous application for this site was refused in 2002 for 6 reasons: 1. Landscape, 2. Flood Risk, 3. Prematurity, 4. Landform, 5, Intrusive in landscape, 6. Impact on setting of historical buildings and ancient monument.</p> <p>The proposal is to extract 170,000 tpa over 5.5 years.</p>
Adequacy of Supporting Information		Most information is adequate, but confirmation of mineral operator, landowner willingness and evidence of reserve calculation (including proven thickness of mineral) is needed, given that a (single) IMAU borehole suggests only limited thickness. No further evidence was submitted in response to the request for supplementary information.
Suitability for consideration as a Specific Site allocation, on resource grounds		No – proposer failed to respond to the request for additional information.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity of any areas of ancient woodland.

Agenda Pack 237 of 454

Criterion	Score (Impact)	Justification
Aquifers	Medium	The site is located within a Secondary A aquifer.
BAP Priority Species or Habitats	Positive	<p>The site contains one area of deciduous woodland and is immediately adjacent to two other areas of deciduous woodland. Two further areas of deciduous woodland are located on the opposite side of Lower Hatfield Road.</p> <p>However, the proposed restoration includes the creation of two lakes separated by wetland (14.4ha) and the provision on new wildlife habitat (1.5ha) which could have positive effects on BAP priority habitats and/ or species. However, this is uncertain as details will not be known until the planning application stage.</p>
BMV land	Medium	The site is entirely located within Grade 3 Agricultural land.
Cumulative effects	Low	<p>The site is located immediately adjacent to Waterhall Farm Quarry. However, Waterhall Farm Quarry is inactive with regard to mineral extraction, as such, no cumulative effects are likely. Furthermore, the site has been put forward by the owner of the existing quarry and it is likely that extraction at this site will only commence once works on the existing quarry have been completed, if Waterhall Quarry ever became active again.</p> <p>The site is also within close proximity to Bunkers Hill Quarry but it is currently being restored.</p>
Ecological status of water bodies	High	The site contains one watercourse and is immediately adjacent to another watercourse.
Flood risk	Positive	<p>The site is located within Flood Zones 2-3b.</p> <p>The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.</p>
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of

Agenda Pack 238 of 454

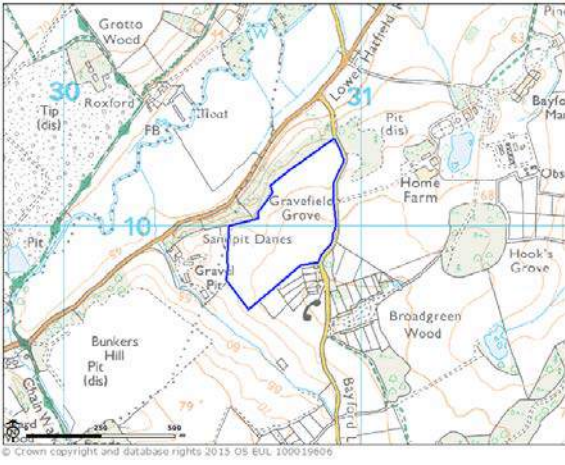

Criterion	Score (Impact)	Justification
		including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 85% of the site is located within Source Protection Zone 3 with the remaining 15% not located within any Source Protection Zone
Heritage designations	Medium	The site is located immediately adjacent to the Roxford Moated Site Scheduled Monument.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a mineral operator.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is immediately adjacent to the River Lea Local Wildlife Site.
Proximity of allocated residential or built development	Low	The site is not located within or in close proximity to any existing settlements or any site allocations within the East Hertfordshire Local Plan 2007.
Recreation	High	The site is located immediately adjacent to a PRow (No: 074) and is within 100m of three more PRow (No's: 054, 074 and 254).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored to two lakes separated by wetland (14.4ha) and new wildlife habitats on adjacent land (11.5ha).
Sensitive land uses	Medium	The site is located within close proximity of Roxford and a number of properties located on the opposite side of Lower Hatfield Road.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		

Agenda Pack 239 of 454

Criterion	Score (Impact)	Justification
Summary of SA Findings (incorporating HRA findings)		The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 landscape), 4.1 (water quality) and 9.2 (recreation) and significant negative effects against 1.1 (biodiversity). In addition, the SA identifies a significant positive effect (with some uncertainty) against SA objective 6.2 (flood alleviation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the flat landform, the enclosed nature of the site and the proximity to existing mineral extraction sites. Impacts could be fully mitigated by screening and post-extraction restoration could strengthen the character of the river corridor which is adjacent to the site.</p> <p>There are also a limited number of residential properties within the vicinity of the site and impacts on them could be fully mitigated by screen planting without adversely changing their visual amenity.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>It is stated by the site promoter that minerals can be carried over private land directly to the processing plant at Water Hall Quarry. This being the case, the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.</p>		

Site Selection Proforma: MLPCS012

Site Information

Site Name: Water Hall Quarry – Broad Green Area		Site ID Number: MLPCS012	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	30/06/2016 – Morning
Site Area:	11.8ha	Attendees:	Jonny Hill
Central Grid Ref.:	210001 530723	Planning History:	The site has been subject to two mineral planning applications one of which was refused (3/0705-13 ³²) and one of which was withdrawn (E/1485-64).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

³² Site refused due to the proposal involving working outside of an identified Preferred Area, wherein planning permission for mineral extraction will only be granted when the landbank is below the required level and there is a need for the proposal to maintain the County's appropriate contribution to local, regional and national need that cannot be met from the identified area, and it can be demonstrated that the proposals would not prejudice the timely working of Preferred Areas; or sterilisation of resources will otherwise occur; the application has failed to demonstrate a particular need for the mineral and it is not evident that sterilisation would occur; and the site is located within the Green Belt.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The southern part of the site falls within Resource Block B of IMAU Report 67 whilst the northern part falls within Resource Block D of IMAU Report 112.</p> <p>The resource areas are confirmed by the digital BGS Resource Map, which identifies them as concealed glacio-fluvial deposits.</p> <p>The more detailed BGS superficial geology mapping identifies the resources as part of the pre-glacial Kesgrave Catchment Subgroup, which are overlain (except along the north-western side of the site) by glacial till.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	450,000t	<p>No calculations are provided, although mineral operator seems to be involved and it is likely that a careful assessment will have been carried out. The indicated tonnage equates to 281,250 m³, implying an average mineral thickness of 4.02m over the 7-hectare area of working.</p> <p>The nearest IMAU borehole within the same deposit reveals 6.6m of sand & gravel beneath a 5.4m overburden of glacial till.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Evidenced by previous working of the adjoining site and by virtue of making use of existing plant & infrastructure. The proposal relies partly on inert waste (from the operator's MRF at Water Hall) which should be viable based on recent planning history. No anticipated exceptional

Agenda Pack 242 of 454

Criterion	Yes/No	Justification
		costs.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	Some consideration has been given to hydrological issues but no impacts are assumed and no mitigation has been allowed for. Given the significance of the underlying Chalk aquifer and the location of the site within a groundwater source protection zone (3), this may be too simplistic, and additional monitoring/ mitigation costs might need to be allowed for. Allowance has been made for the minimisation of dust and ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Mineral operator (of the existing Water Hall Quarry) has 'overriding mineral working options'.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Proposal made by landowner's Agent. Site will be available any time after 1 year.
<ul style="list-style-type: none"> Other points to note: 		Existing PP (for adjoining site) was granted on appeal in 2014 This proposal is for an extension to that site. It is proposed to extract 150,000tpa over a period of 3 years.
Adequacy of Supporting Information		Information is adequate to support the proposed allocation. More convincing evidence would be needed at the planning application stage regarding the mitigation of (currently unexpected) potential impacts on groundwater.
Suitability for consideration as a Specific Site allocation, on resource grounds	Yes.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity of any areas of ancient woodland.
Aquifers	Medium	The site is located within a Secondary Undifferentiated aquifer.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas to known to include BAP species.
BMV land	Medium	The site is located entirely within Grade 3 agricultural land.

Agenda Pack 243 of 454

Criterion	Score (Impact)	Justification
Cumulative effects	Low	The site is within close proximity to Bunkers Hill Quarry but it is currently being restored.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a mineral operator.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located immediately adjacent to Broad Green Wood. The site is not located within or in close proximity to a site allocation of the East Hertfordshire Local Plan 2007.

Agenda Pack 244 of 454

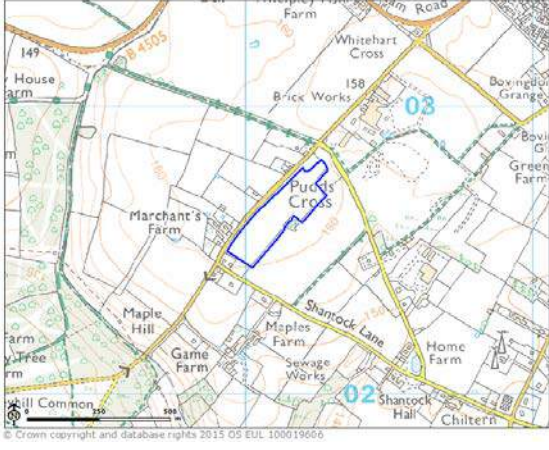

Criterion	Score (Impact)	Justification
Recreation	Low	The site does not contain nor is it located within close proximity to any PRoW or recreational facilities.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The site is located immediately adjacent to Broad Green Wood.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape) and 4.1 (water quality) and a significant adverse effect against SA objective 1.1 (biodiversity protection). In addition, a minor positive effect is recorded in relation to SA objective 9.3 (recreation provision). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the gently sloping landform, simple land cover pattern and its enclosed nature. The proximity to former and operational mineral sites decreases the rural quality of the immediate area. However, valued features such as the historic field pattern should be safeguarded.</p> <p>There are also few residential properties within the vicinity of the site and only those at Broad Green Wood have open views, which due to the flat nature of the site, could be mitigated without losing existing visual amenity.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>The site promoter states that mineral extraction would be carried over private land, through Bunkers Hill Quarry, across Lower Hatfield road directly to the processing plant at Water Hall Quarry. As the minerals will be processed at Water Hall, the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p>		

Agenda Pack 245 of 454

Criterion	Score (Impact)	Justification
A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.		

Site Selection Proforma: MLPCS013

Site Information

Site Name: Harry's Field		Site ID Number: MLPCS013	
			
Site Contact:	Agent – Mike Chamley Associates	Site Visit Date and Time:	05/07/2016 – Morning
Site Area:	4.6ha	Attendees:	Jonny Hill
Central Grid Ref.:	202600 500100	Planning History:	The site has no relevant planning history.
District:	Dacorum		
Mineral to extract:	Brick Clay		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> • Within Resource Area? 	Yes	<p>The site is located within an area of brick clay resources, as identified on the digital BGS Resource Maps.</p> <p>On the BGS superficial geology maps those resources are identified as part of the 'Clay with Flints' deposits which directly overlie and infill solution hollows within the underlying Cretaceous Chalk.</p> <p>The site is directly adjacent to the existing Bovingdon Brick Works and within a continuation of precisely the same deposits.</p>
<ul style="list-style-type: none"> • Tonnage of Reserves Calculated? 	c140,000t	Not assessed in detail. Approximate gross reserve estimated at 70,000 m ³ (equivalent to circa 140,000 tonnes) over the 4 hectare site.
<ul style="list-style-type: none"> • Economic Viability Assessed by Proposer? 	Yes	Operator's proposal.
<ul style="list-style-type: none"> • Economic Viability Allows for Mitigation? 	Yes	Allows for dust control and no groundwater impacts are anticipated, based on the environmental assessment of the adjoining land under planning consent 4/2819-15 (CM0017). No evidence of consideration of other potential impacts.
<ul style="list-style-type: none"> • Deliverability: operator willing? 	Yes	Proposal submitted by Agent for the operator (Bovingdon Brickworks Ltd.)

Agenda Pack 248 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Not known	<p>Same landowner as the Cox & Croft Field site to the south east. Brick-clay extraction would be subject to extending or agreeing a new lease/option with the landowner and any agreements needed for the access route.</p> <p>Timing would be subject to assessing how best to work the site with respect to planning consent 4/2819-15 (CM0017). The site could be a replacement site when Cox & Croft Fields has been exhausted or it may be possible to work adjacent areas concurrently.</p>
<ul style="list-style-type: none"> Other points to note: 	<p>Planning consent 4/2819-15 (CM0017) for brick-clay extraction on land to south east (Cox & Croft Fields).</p> <p>It is proposed to extract approximately 15,000tpa. As a natural extension to the Cox & Croft Fields site to the south east.</p>	
Adequacy of Supporting Information		Information is adequate to support the proposed allocation. The proposal is informed to a large extent by the detailed assessments carried out in connection with the recently acquired permission for adjoining fields to the South-east. More specific evidence of consideration of impacts on ecology etc. would be helpful but not considered essential at this stage.
Suitability for consideration as a Specific Site allocation, on resource grounds		Yes: This is a fully viable and properly assessed proposal. Moreover, the allocation is needed to support the long term future operation of this, the only remaining brickworks site in Hertfordshire. The proposed site is directly adjacent to existing workings and processing facilities.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity to any areas of ancient woodland.
Aquifers	Low	The site is not located within an aquifer.
BAP Priority Species or Habitats	Positive	<p>The site is located approximately 50m south of one area of deciduous woodland and 70m west of another area of deciduous woodland.</p> <p>The proposed restoration includes ecological restoration which could have positive effects on BAP priority species and/or habitats. However, this is uncertain as details will not be known until the planning application stage.</p>

Agenda Pack 249 of 454

Criterion	Score (Impact)	Justification
BMV land	Medium	Approximately 90% of the site is Grade 2 agricultural land with the remaining 10% located within Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 2.
Heritage designations	Medium	The site is located adjacent to Leyhill Road where two Grade II listed buildings are located on the opposite side.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Medium	The site is not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Positive	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site. The proposed restoration includes ecological restoration which could have positive effects

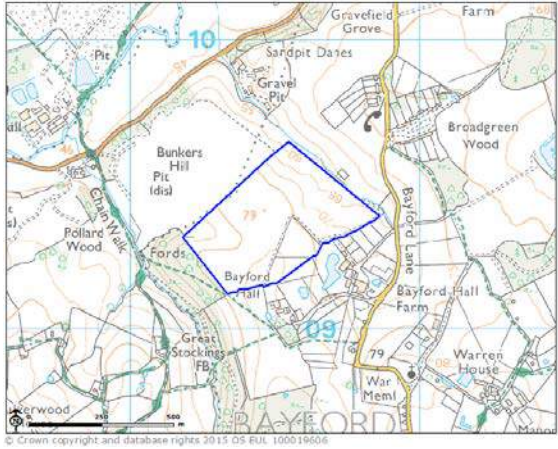

Agenda Pack 250 of 454

Criterion	Score (Impact)	Justification
		on nature conservation. However, this is uncertain as details will not be known until the planning application stage.
Proximity of allocated residential or built development	Low	The site is not located within close proximity to an existing settlement nor is it located within or in close proximity to a site allocation within the Dacorum District Core Strategy 2013 or Dacorum District Draft Site Allocations DPD 2016.
Recreation	Medium	The site is located within 100m of two PRow (No's: 007 and 009).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored primarily back to agricultural use with associated ecological restoration.
Sensitive land uses	High	The site is located immediately adjacent to properties along Shantock Lane. The site is also on the opposite side of Leyhill Road where there are a number of additional properties.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage) and 3.1 (landscape) and significant adverse effects against SA objective 1.1 (biodiversity protection). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the flat landform and enclosure from hedgerow and hedgerow trees. The site's proximity to existing built development (i.e. existing brickworks and builders merchants' yard) also reduces its sensitivity.</p> <p>Valued features such as the hedgerows and mature trees at the perimeter and the small copse that border the south eastern boundary of the site should be safeguarded.</p> <p>There are few properties within the vicinity of the site and only those on Shantock Lane have open views. Due to the flat landform these impacts could be mitigated by screening without losing existing visual amenity. Furthermore, mitigation planting has recently been planted along the curtilage boundaries. It is considered that impacts on visual amenity could be fully mitigated with woodland screen planting.</p>		

Criterion	Score (Impact)	Justification
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>To the southeast of the site there is a site which was subject to a minerals planning application (4/2819-15) and HCC Highways did not object to the development subject to conditions. The site promoter states that the access route constructed under application 4/2819-15 would be used for this site. The access arrangement for this site would therefore be subject to the conditions attached to planning permission 4/2819-15.</p> <p>Additionally, the site promoter when submitting a planning application would need to provide additional information on the number of HGV movements the site will generate in order to determine the impact of the additional HGV movements on the network and whether the intensification of the proposed access (under 4/2819-15) is acceptable.</p>		

Site Selection Proforma: MLPCS014

Site Information

Site Name: Water Hall Quarry – Bunkers Hill South Area		Site ID Number: MLPCS014	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	30/06/2016 – Morning
Site Area:	18.1ha	Attendees:	Jonny Hill
Central Grid Ref.:	209397 530439	Planning History:	Part of the site was subject to a mineral planning application which was withdrawn (3/0040-99).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>The site falls within Resource Block B of IMAU Report 67.</p> <p>The resource area is confirmed by the digital BGS Resource Map, which identifies the material as concealed glacio-fluvial deposits.</p> <p>The more detailed BGS superficial geology mapping identifies the resources as part of the pre-glacial Kesgrave Catchment Subgroup, which are overlain over almost all of the site by glacial till.</p> <p>The site forms a south-easterly continuation of the same deposits which have already been worked at Bunkers Hill (Water Hall).</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	1mt	<p>No calculations are provided, although mineral operator seems to be involved and it is likely that an assessment will have been carried out. The indicated tonnage equates to 625,000m³, implying an average mineral thickness of 3.86m over the 16.2-hectare area of working.</p> <p>A single IMAU borehole within the site reveals 6.1m of sand & gravel beneath a 10.6m overburden of glacial till.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry)	<p>A mineral operator is involved, (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. Given the presence of significant overburden within at least</p>

Agenda Pack 254 of 454

Criterion	Yes/No	Justification
	involvement	part of this site, a critical issue could be the ratio of mineral to overburden, and no evidence has been provided on this. The proposal also relies partly on inert waste (from the operator's MRF at Water Hall) to achieve restoration, which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	Some consideration has been given to water environment issues but no impacts are assumed and no mitigation has been allowed for. The gravels are underlain by London Clay and Lambeth Group clays, silts and sands, rather than directly by the Chalk aquifer, but the site is located within a groundwater source protection zone (3) and additional monitoring/mitigation costs might need to be allowed for. Some allowance has been made for the minimisation of dust impacts and for the avoidance of significant ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Mineral operator (of the existing Water Hall Quarry? holds a mineral working option.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Land appears to be owned by the operator and the Agent advises that there would be no legal or ownership constraints Site will be available any time after 1 year.
<ul style="list-style-type: none"> Other points to note: 	It is proposed to extract 150,000tpa over a period of 3 years.	
Adequacy of Supporting Information	Information is currently inadequate to support the proposed allocation. More convincing evidence is needed on economic viability, including allowance for the mitigation of (currently unexpected) potential impacts on groundwater. Confirmation of mineral operator's involvement would also be helpful. Evidence is also needed to support the reserve calculation. No further evidence was submitted in response to the request for supplementary information.	
Suitability for consideration as a Specific Site allocation, on resource grounds	No – inadequate information.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	High	The site is immediately adjacent to one area of

Agenda Pack 255 of 454

Criterion	Score (Impact)	Justification
		ancient woodland.
Aquifers	Medium	The site is located within a Secondary Undifferentiated Aquifer.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas to known to include BAP species.
BMV land	Medium	The site is entirely located within Grade 3 agricultural land.
Cumulative effects	Low	The site is within close proximity to Bunkers Hill Quarry but it is currently being restored.
Ecological status of water bodies	Medium	The site is located immediately adjacent to a water course.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 15% of the site is located within Source Protection Zone 3 with the remaining 85% not located within any Source Protection Zone.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a minerals operator.
Landscape designations	Low	The site is not located within a landscape

Agenda Pack 256 of 454

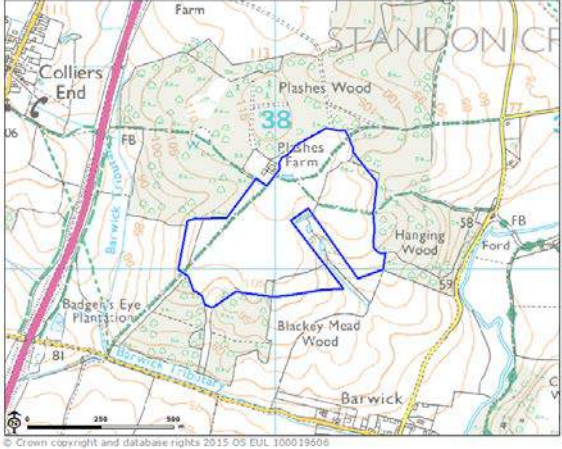

Criterion	Score (Impact)	Justification
		designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located within close proximity of Broad Green Wood. The site is not located within or in close proximity to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	High	The site is located immediately adjacent to one PRoW (No: 004).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The site is located immediately adjacent to Bayford Hall and Bayford Hall Farm.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objectives 2.1 (heritage), 3.1 landscape) and 9.2 (recreation loss) and a significant negative effect against SA objective 1.1 (biodiversity). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have low-moderate sensitivity to mineral extraction due to the gently undulating landform, simple land cover pattern and proximity to restored or active mineral sites which decrease the rural quality of the immediate area.</p> <p>There are a limited number of residential properties in the vicinity of the site and distant views of the site from Broad Green. Impacts could be fully mitigated by screening that would be in keeping with the existing landscape character and without adversely affecting visual amenity.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>It is stated that the minerals would be carried over private land, through Bunkers Hill Quarry, across Lower Hatfield Road directly to the processing plant at Water Hall Quarry. This would</p>		

Agenda Pack 257 of 454

Criterion	Score (Impact)	Justification
		<p>result in an increase in HGVs crossing the Lower Hatfield Road which could lead to congestion and safety issues along the road. As the minerals will be processed at Water Hall, the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>Further information is required with regards to the level of intensification the site would create at this access and also information on how this would be managed with the existing services.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGV movements). Additionally, details of the proposed access arrangement would be required so that HCC Highways can assess its feasibility.</p>

Site Selection Proforma: MLPCS015

Site Information

Site Name: Plashes Farm		Site ID Number: MLPCS015	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	29/06/16 – Morning
Site Area:	24.4ha	Attendees:	Jonny Hill
Central Grid Ref.:	220324 538030	Planning History:	Part of the site has been approved for mineral extraction under planning permissions (3/1391-01 and 3/2158-00).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	Yes	Parts of the site have been worked which may reduce the available deposit. The viability of the reserve would need to be established by borehole data across the site.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes, mostly	<p>The southern tip of the site falls within Resource Block B of IMAU Report 112. The northern part of the site is not covered by any IMAU report but the resources continue, as confirmed by the digital BGS Resource Map, which identifies the material as glacio-fluvial sand & gravel deposits. These are shown to be concealed in the southern part of the site (but only south of a sheet boundary, suggesting a difference of interpretation by different geologists).</p> <p>The more detailed BGS superficial geology mapping confirms the material to be glacio-fluvial in origin and shows the whole of the resource area to be unconcealed by overlying deposits.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	500,000t	<p>No calculations are provided, although mineral operator is involved and it is likely that an assessment will have been carried out. The indicated tonnage equates to 312,500m³, implying an average mineral thickness of only 1.49m over the 21-hectare area of working. This is much less than the depth indicated by IMAU data but it may reflect the fact that the deposits will not be worked below the water table, in order to minimise impacts on groundwater.</p>

Agenda Pack 260 of 454

Criterion	Yes/No	Justification
		The nearest IMAU boreholes are some distance to the south, in an area where resources of 5.3 to 6.4m of sand & gravel are concealed beneath up to 12.3m of glacial till (but this is not likely to be characteristic of the site itself, most of which should have little if any overburden).
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry involvement)	A mineral operator is involved, (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. Given the apparently limited thickness of workable mineral (above the water table) and the possibility of significant overburden, a critical issue on this site might be the ratio of mineral to overburden, but no evidence has been provided on this. The proposal also relies partly on inert waste landfilling to achieve restoration, which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	Some consideration has been given to water environment issues but no impacts are assumed and no mitigation has been allowed for. The gravels are underlain by London Clay, rather than directly by the Chalk aquifer, but the site is located within a groundwater source protection zone (2), and additional monitoring/mitigation costs might need to be allowed for. Some allowance has been made for the minimisation of dust impacts and for the avoidance of significant ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	The site is owned by a mineral operator.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Proposal submitted by landowner's/ operator's Agent. Site will be available any time after 1 year.
<ul style="list-style-type: none"> Other points to note: 	Some previous applications permitted. It is proposed to work the site at a rate of 100,000tpa over 5 years.	
Adequacy of Supporting Information	Information is currently inadequate to support the proposed allocation. More convincing evidence is needed on economic viability. Evidence is also needed to support the reserve calculation. No further evidence was submitted in response to the request for supplementary information.	
Suitability for consideration as a Specific Site allocation, on resource grounds	No – inadequate information.	

Agenda Pack 261 of 454

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Very High	The site contains three areas of ancient woodland and is located immediately adjacent to three additional areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Medium	The site contains three areas of deciduous woodland and is located immediately adjacent to one additional area of deciduous woodland.
BMV land	Medium	The site is entirely located within Grade 2 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Medium	The site contains one water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 2.
Heritage designations	Medium	The site is located immediately adjacent to one Grade II* and one Grade II listed building.

Criterion	Score (Impact)	Justification
International and national ecological designations	Very High	The site contains and is immediately adjacent to Plashes Wood SSSI.
Land ownership	Low	The site is in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is partly within Blackey Mead Wood (High Cross) Local Wildlife Site and is immediately adjacent to Badger's Eye Plantation and Plashes Farm Buildings Local Wildlife Sites.
Proximity of allocated residential or built development	Low	The site is not located within close proximity of an existing settlement. The site is not located within or in close proximity to a site allocation with the East Hertfordshire Local Plan 2007.
Recreation	High	The site contains three PROW (No's: 041, 043, and 044).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The site is located immediately adjacent to Plashes Farm.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, but is not located within close proximity to the strategic road network.

Summary of Sustainability Appraisal

Summary of SA Findings (incorporating HRA findings)

The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage) and 4.1 (water quality) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air quality effects), 3.1 (landscape) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.

Summary of Landscape and Visual Sensitivity Comments

The site is considered to have **moderate-high sensitivity** to mineral extraction due to the varied landform, historic field pattern and valued landscape features. Mineral extraction is likely to disturb the strong rural character of the site and the impacts could not be fully mitigated.

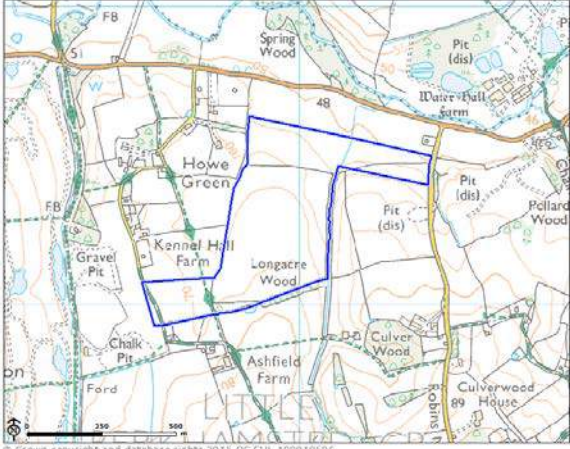

The southern half of the site is fairly open and there are open views of the site from footpaths

Agenda Pack 263 of 454

Criterion	Score (Impact)	Justification
<p>which cross the site. Impacts on the visual amenity of some residents in the village of Barwick could be mitigated by screening to the north of the village.</p>		
<p>Summary of HCC Highways Comments</p>		<p>Score:</p>
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>Access to the site would be via Gore Lane with HGV movements directed onto the A10. Discussions with HCC Highways would be required to determine the level of improvements that would be required/appropriate for Gore Lane and so they can assess its feasibility.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGVs).</p>		

Site Selection Proforma: MLPCS016

Site Information

Site Name: Water Hall Quarry – Howe Green Area		Site ID Number: MLPCS016	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	30/06/2016 – Morning
Site Area:	25.8ha	Attendees:	Jonny Hill
Central Grid Ref.:	528943 209246	Planning History:	Part of the site has been subject to a mineral planning application which was refused (IDO-094-49 ³³).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

³³ No proper documents found. Application appears to have been refused or delayed. Stated as non-determination.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Partly	<p>The whole of the site falls within Resource Block B of IMAU Report 67, but only the northern part of the site is shown, in that report, as containing sand & gravel resources.</p> <p>This is confirmed by the digital BGS Resource Map, which identifies the sand & gravel as concealed glacio-fluvial deposits and shows these to be confined to the northern part of the site.</p> <p>The more detailed BGS superficial geology mapping shows the resources to be part of the pre-glacial Kesgrave Catchment Subgroup, which are overlain in the south by glacial till.</p> <p>Both the resource map and the superficial geology map also show a small part of the resource area, at the northern edge of the site, to include younger river terrace deposits.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	1.7mt	<p>No calculations are provided, although mineral operator is involved and it is likely that an assessment will have been carried out. The indicated tonnage equates to 1.062 million m³, implying an average mineral thickness of 6.18m over the anticipated 17.2-hectare area of working. (That corresponds to the area of resource within the site as shown on the BGS resource map).</p> <p>The nearest IMAU boreholes within the same resource block, located some distance to the</p>

Agenda Pack 266 of 454

Criterion	Yes/No	Justification
		west and east of this site, indicate 12.7 and 6.1m of sand & gravel beneath 2.4 and 10.6m of glacial till overburden, respectively.
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry involvement)	A mineral operator is involved, (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. No restoration is described in the proposal, although other proposals by same operator rely at least partly on infilling with inert waste, which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	No	No information is provided with the proposal regarding any environmental impacts, so no allowance can have been made for mitigation.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Mineral operator (of the existing Water Hall Quarry has 'overriding mineral working options'.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Operator has mineral working option. Multiple landownership, no confirmation was received following request from HCC relating to a small part of the site. Site will be available any time after 1 year.
<ul style="list-style-type: none"> Other points to note: 	No assessment is offered as to the rate or duration of extraction.	
Adequacy of Supporting Information	Information is currently inadequate to support the proposed allocation. No further evidence was submitted in response to the request for supplementary information.	
Suitability for consideration as a Specific Site allocation, on resource grounds	No – inadequate information.	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within in close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas to known to include BAP species.

Agenda Pack 267 of 454

Criterion	Score (Impact)	Justification
BMV land	Medium	Approximately 40% of the site is located within Grade 2 agricultural land with the remaining 60% located within Grade 3 agricultural land.
Cumulative effects	Medium	The site is located immediately adjacent to Bedwell Park Quarry both of which are within close proximity to Howe Green.
Ecological status of water bodies	High	The site contains one watercourse which also runs down its eastern boundary.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Low	The site is under option to a minerals operator.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is allocated immediately adjacent to Howe Green. The site is not located within or in close proximity

Agenda Pack 268 of 454

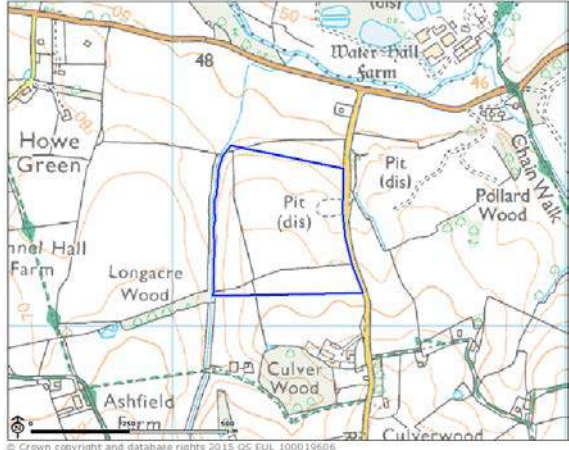

Criterion	Score (Impact)	Justification
		to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	High	The site contains one PRoW (No: 074) and Bridleway (074) to the west and is within 100m of two other PRoW (No: 074) to the south.
Restoration	Medium	No use has been suggested for the site's restoration. As such, it is uncertain whether a high quality restoration would take place once mineral extraction has finished.
Sensitive land uses	High	The site is allocated immediately adjacent to Howe Green. The site is also within close proximity to a property at Ashfield Farm and one property along Robins Nest Hill.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity protection), 4.1 (water quality) and 9.2 (recreation loss). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The site is considered to have moderate sensitivity to mineral extraction due to the site's openness, historic field system and its rural character. However, some impacts could be mitigated by screening to the west and post-excavation restoration offers opportunities to improve degraded hedgerow structure.</p> <p>Views of the site from Howe Green are possible and there are open views from the footpaths that cross the site. Impacts on these receptors could be partially mitigated through screening.</p>		
Summary of HCC Highways Comments		Score:
<p>The site has not been assessed by HCC Highways as no details of access arrangements have been provided. If access is proposed to be from Robins Nest Hill it is anticipated that improvements will be required to accommodate the proposal.</p> <p>It should be noted that the minerals extracted will be processed at Water Hall Quarry. This being the case, the amount of traffic generated by Water Hall Quarry will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p>		

Agenda Pack 269 of 454

Criterion	Score (Impact)	Justification
		<p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGVs). Additionally, details of the proposed arrangement will be required so that HCC can assess its feasibility.</p>

Site Selection Proforma: MLPCS017

Site Information

Site Name: Robins Nest Hill		Site ID Number: MLPCS017	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	30/06/2016 – Morning
Site Area:	11.7ha	Attendees:	Jonny Hill
Central Grid Ref.:	209296 529341	Planning History:	The site was subject to a mineral planning application which was refused (IDO-094-49 ³⁴).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

³⁴ No proper documents found. Application appears to have been refused or delayed. Stated as non-determination.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Partly	<p>The site falls within Resource Block B of IMAU Report 67, but only the northern part of the site is shown, in that report, as containing sand & gravel resources.</p> <p>This is confirmed by the digital BGS Resource Map, which identifies the sand & gravel as concealed glacio-fluvial deposits.</p> <p>The more detailed BGS superficial geology mapping shows the resources to be part of the pre-glacial Kesgrave Catchment Subgroup and, unlike the resource map, shows these to be present beneath the whole of the site, overlain in part by glacial till.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	1mt	<p>No reserve calculations are provided. The indicated tonnage equates to 625,000 m³, which implies an average mineral thickness of 6.58m over the anticipated working area of 9.5 hectares. (That represents a much greater area than the resource outcrop within the site as shown on the BGS resource map and therefore will need to be justified by borehole data).</p> <p>The mineral would be worked only above the water table to minimise impacts on groundwater.</p> <p>The nearest IMAU boreholes within the same resource block, located some distance to the west and east of this site, indicate 12.7 and 6.1m of sand & gravel beneath 2.4 and 10.6m of</p>

Agenda Pack 272 of 454

Criterion	Yes/No	Justification
		glacial till overburden, respectively.
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry involvement)	A mineral operator is involved (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. The proposal relies partly on inert waste landfilling to achieve restoration, which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	Some consideration has been given to water environment issues but no impacts are assumed and no mitigation has been allowed for, other than limiting the depth of extraction. Given the significance of the underlying Chalk aquifer and the location of the site within a groundwater source protection zone (3), this may be too simplistic, and additional monitoring/ mitigation costs might need to be allowed for. Some allowance has been made for the minimisation of dust impacts and for the avoidance of significant ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Not known	No evidence of mineral operator involvement yet, although Agent's client is Water Hall (England).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	No	Lease and working arrangements would need to be agreed with the landowner. No confirmation was received following request from HCC. In addition there is an outstanding covenant restriction which has to be taken through due legal process to be removed. Site is expected to be available within 1 to 5 years.
<ul style="list-style-type: none"> Other points to note: 		Previous application refused. It is proposed to extract 150,000tpa over a period of 6.5 years.
Adequacy of Supporting Information		Information is inadequate to support the proposed allocation. Evidence is needed on economic viability, including allowance for the mitigation of (currently unexpected) potential impacts on groundwater. Confirmation of mineral operator involvement and landowner agreement is also needed. Evidence is also needed to support the reserve calculation. No further evidence was submitted in response to the request for supplementary information.
Suitability for consideration as a Specific Site allocation, on resource grounds		No – inadequate information.

Agenda Pack 273 of 454

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas known to include BAP species.
BMV land	Medium	Approximately 30% of the site is located within Grade 2 agricultural land with the remaining 70% located within Grade 3 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	Medium	The site is immediately adjacent to a watercourse.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 3.
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national	Low	The site is not located within 250m of any

Agenda Pack 274 of 454

Criterion	Score (Impact)	Justification
ecological designations		international or national ecological designations.
Land ownership	Medium	The site is not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Low	The site is not located within or immediately adjacent to a Local Nature Reserve or Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located within close proximity to Howe Green. The site is not located within or in close proximity to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	Low	The site does not contain nor is it located within close proximity to any PRow or recreational facilities.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	Medium	The site is located within close proximity to one property along Robins Nest Hill.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, but is not located within close proximity to the strategic road network.

Summary of Sustainability Appraisal

Summary of SA Findings (incorporating HRA findings)

The SA of this site option identifies a minor negative effect against SA objective 3.1 (landscape) and 4.1 (water quality) and significant adverse effects against SA objectives 1.1 (biodiversity protection). In addition, the SA identifies a minor positive effect (with some uncertainty) against SA objective 9.3 (recreation provision). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.

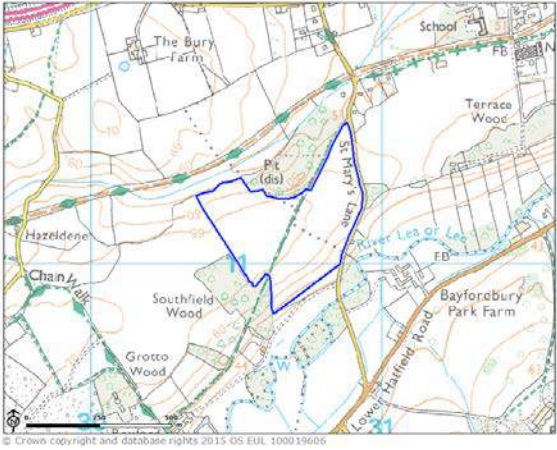

Summary of Landscape and Visual Sensitivity Comments

The site is considered to have **moderate sensitivity** to mineral extraction due to the site's openness, historic field system and its rural character. Some impacts could be mitigated by screening and post-excavation restoration offers opportunities to improve the degraded hedgerow

Criterion	Score (Impact)	Justification
<p>structure.</p> <p>There are filtered views of the site from Howe Green and local footpaths within the vicinity of the site and there is one residential property within the vicinity of the site with open views. However, it is considered that views from this property could be mitigated by screen planting.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>The site would be accessed via Robins Nest Hill which has constraints that are likely to be overcome by modest highway improvements.</p> <p>It should be noted that the minerals extracted from the site would be processed at Water Hall Quarry. This being the case the amount of traffic generated by Water Hall Quarry will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGVs). Additionally, details of the proposed arrangement will be required so that HCC can assess its feasibility.</p>		

Site Selection Proforma: MLPCS018

Site Information

Site Name: Southfield Wood East		Site ID Number: MLPCS018	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	29/06/2016 – Morning
Site Area:	16.7ha	Attendees:	Jonny Hill
Central Grid Ref.:	211056 530564	Planning History:	Part of the site has been subject to a mineral planning permission which was refused (3/1568/78 ³⁵).
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

³⁵ No record found.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> • Within Resource Area? 	Yes	<p>The site falls within Resource Block D of IMAU Report 112.</p> <p>The resource is confirmed by the digital BGS Resource Map, which identifies the material as concealed glacio-fluvial deposits.</p> <p>The more detailed BGS superficial geology mapping identifies the resources as part of the pre-glacial Kesgrave Catchment Subgroup, which are overlain over almost all of the site by glacial till.</p>
<ul style="list-style-type: none"> • Tonnage of Reserves Calculated? 	500,000t	<p>No reserve calculations are provided. The indicated tonnage equates to 312,500m³, which implies an average mineral thickness of only 2.23m over the anticipated working area of 14 hectares.</p> <p>Nearby IMAU boreholes reveal 1.5 to 7.5m of sand & gravel beneath a 1.5 to 8.8m overburden of glacial till.</p>
<ul style="list-style-type: none"> • Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry involvement)	<p>A mineral operator is involved (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. Given the apparently limited thickness of mineral and the presence of significant overburden, a critical issue on this site could be the ratio of mineral to overburden, and no evidence has been provided on this. The proposal also relies partly on inert</p>

Agenda Pack 278 of 454

Criterion	Yes/No	Justification
		waste landfilling to achieve restoration , which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for	Some consideration has been given to water environment issues but no impacts are assumed and no mitigation has been allowed for, although the deposit is said to be entirely above the water table. However, given the significance of the underlying Chalk aquifer and the location of the site within a groundwater source protection zone (3), this may be too simplistic, and additional monitoring/ mitigation costs might need to be allowed for. Some allowance has been made for the minimisation of dust impacts and for the avoidance of significant ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Not known	No evidence of mineral operator involvement yet, although Agent's client is Water Hall (England).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	No	Lease and working arrangements would need to be agreed with the landowner. Note that surface and minerals ownership are held separately with 'overriding mineral interest' – but no indication that an operator has secured those rights. No confirmation was received following request from HCC. Subject to the above, the site is expected to be available within 1 to 5 years.
<ul style="list-style-type: none"> Other points to note: 		It is proposed to extract the mineral at a rate of 150,000tpa over a period of 3.3 years.
Adequacy of Supporting Information		Information is inadequate to support the proposed allocation. More convincing evidence is needed on economic viability, including allowance for the mitigation of (currently unexpected) potential impacts on groundwater. Confirmation of mineral operator involvement and landowner agreement is also needed. Evidence is also needed to support the reserve calculation. No further evidence was submitted in response to the request for supplementary information.
Suitability for consideration as a Specific Site allocation, on resource grounds		. No – inadequate information.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport

Agenda Pack 279 of 454

Criterion	Score (Impact)	Justification
		Safeguarding Zone.
Ancient Woodland	High	The site is located immediately adjacent to one area of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Low	The site is not located within any BAP habitats or areas known to include BAP species.
BMV land	Medium	The site is entirely located within Grade 2 agricultural land.
Cumulative effects	Low	The site is located immediately adjacent to Waterhall Farm Quarry. However, it is inactive with regard to mineral extraction. Furthermore, the site has been put forward by the owner of the existing quarry and it is considered that extraction at this site will only commence once works on the existing quarry have been completed.
Ecological status of water bodies	Low	The site does not contain nor is it located near to a water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The site is entirely located within Source Protection Zone 3.
Heritage designations	Medium	The site is located immediately adjacent to the Hertingfordbury Conservation Area.

Agenda Pack 280 of 454

Criterion	Score (Impact)	Justification
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Medium	The site is not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is immediately adjacent to Southfield Wood Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located within close proximity to Hertingfordbury. The site is not located within or in close proximity to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	High	The site contains two PRow (Nos: 002 and 057).
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	Medium	The site is located within close proximity of a number of properties along St. Mary's Lane.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Medium	The site is located within close proximity to the strategic road network (A414) and is not located within or in close proximity to an Air Quality Management Area.

Summary of Sustainability Appraisal

Summary of SA Findings (incorporating HRA findings)

The SA of this site option identifies a minor negative effect against SA objective 3.1 (landscape) and significant negative effects against SA objectives 1.1 (biodiversity), 1.3 (biodiversity air pollution effects), 2.1 (historic environment) and 9.2 (recreation). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.

Summary of Landscape and Visual Sensitivity Comments

The site is considered to have **low-moderate sensitivity** to mineral extraction due to the gently undulating landform and its elevated and enclosed position above the River Lea. Impacts could be fully mitigated by screening and setting mineral extraction back from the ancient woodland.

Views of the site from the locality are limited and could be mitigated by screening.

However, mineral workings are likely to be seen by people using the footpath crossing the site

Criterion	Score (Impact)	Justification
unless it is diverted.		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>Access would be directly over company land to the existing Water Hall Quarry processing plant. This being the case the amount of traffic generated by Water Hall Quarry will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGVs). Additionally, details of the proposed arrangement will be required so that HCC can assess its feasibility.</p>		

Site Selection Proforma: MLPCS019

Site Information

Site Name: Pipers End		Site ID Number: MLPCS019	
			
Site Contact:	Agent – Terra Consult	Site Visit Date and Time:	29/06/2016 – Afternoon
Site Area:	25.2ha	Attendees:	Jonny Hill
Central Grid Ref.:	210423 529310	Planning History:	The site has no relevant planning history.
District:	East Hertfordshire		
Mineral to extract:	Sand and Gravel		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within in an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>Most of the site falls within Resource Block E of IMAU Report 69. The southern tip of the site continues into Resource Block B of IMAU Report 67.</p> <p>The resource areas are confirmed by the digital BGS Resource Map, which identifies them as concealed glacio-fluvial deposits.</p> <p>The more detailed BGS superficial geology mapping identifies the resources as part of the pre-glacial Kesgrave Catchment Subgroup, which are overlain over almost all of the site by glacial till.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	1.4mt	<p>No borehole evidence provided to support calculation. The estimated tonnage equates to 875,000m³, which implies an average mineral thickness of 4.38m over the anticipated working area of 20-hectares (Note: It is stated as 2ha at the start of the proforma, which is assumed to be an error).</p> <p>Nearby IMAU Borehole and Exposure records reveal 5.7 to more than 12m of sand & gravel beneath 8.2 to 15.6m of glacial till overburden.</p>
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Partly (Assumed based on industry involvement)	A mineral operator is involved (the Agent's client is Water Hall), so it can be assumed that some assessment will have been carried out, but there is no clear evidence of this. Given the presence of significant overburden, a critical issue on this

Agenda Pack 284 of 454

Criterion	Yes/No	Justification
		site could be the ratio of mineral to overburden, and no evidence has been provided on this. The proposal also relies partly on inert waste landfilling to achieve restoration, which may or may not be viable.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Partly allowed for.	Some consideration has been given to water environment issues but no impacts are assumed and no mitigation has been allowed for, although the deposit is expected (by the Agent) to be entirely above the water table. However, given the significance of the underlying Chalk aquifer and the location of the site within a groundwater source protection zone (3), this may be too simplistic, and additional monitoring/ mitigation costs might need to be allowed for. Some allowance has been made for the minimisation of dust impacts and for the avoidance of significant ecological impacts.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Not known	No evidence of mineral operator involvement yet, although Agent's client is Water Hall (England).
<ul style="list-style-type: none"> Deliverability: landowner willing? 	No	Lease and working arrangements would need to be agreed with the landowner. No confirmation was received following request from HCC. Subject to this, the site is expected to be available within the next 6 to 10 years.
<ul style="list-style-type: none"> Other points to note: 		Extraction is proposed at a rate of 150,000tpa Over a period of 9.3 years.
Adequacy of Supporting Information		Information is inadequate to support the proposed allocation. More convincing evidence is needed on economic viability, including allowance for the mitigation of (currently unexpected) potential impacts on groundwater. Confirmation of mineral operator involvement and landowner agreement is also needed. Evidence is also needed to support the reserve calculation. No further evidence was submitted in response to the request for supplementary information.
Suitability for consideration as a Specific Site allocation, on resource grounds		No – inadequate information.

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport

Agenda Pack 285 of 454

Criterion	Score (Impact)	Justification
		Safeguarding Zone.
Ancient Woodland	Low	The site is not located within close proximity to any areas of ancient woodland.
Aquifers	Medium	The site is located within Secondary A and Secondary Undifferentiated aquifers.
BAP Priority Species or Habitats	Medium	The site contains one area of deciduous woodland.
BMV land	Medium	The site is entirely located within Grade 3 agricultural land.
Cumulative effects	Low	The site is located within close proximity to Waterhall Farm Quarry. However, it is inactive with regard to mineral extraction. Furthermore, the site has been put forward by the owner of the existing quarry and it is considered that extraction at this site will only commence once works on the existing quarry have been completed.
Ecological status of water bodies	High	The site contains two watercourses and is immediately adjacent to two additional watercourses.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	Approximately 85% of the site is located within Source Protection Zone 3 with the remaining 15% not located within any Source Protection Zone.

Agenda Pack 286 of 454



Criterion	Score (Impact)	Justification
Heritage designations	Low	The site is not located within or immediately adjacent to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Medium	The site is not in control of the industry.
Landscape designations	Low	The site is not located within a landscape designation.
Local Nature Reserves and Local Wildlife Sites	Medium	The site is located immediately adjacent to Spring Wood (near Howe Green) Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The site is located within close proximity of Letty Green. The site is not located within or in close proximity to a site allocation within the East Hertfordshire Local Plan 2007.
Recreation	Medium	The site is located within the grounds of the Hertfordshire Polo Club.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored back to agricultural use.
Sensitive land uses	High	The site is located immediately adjacent to a number of properties along Woolmers Lane. The site is also located within the grounds of the Hertfordshire Polo Club.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, but is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies minor negative effects against SA objective 2.1 (heritage), 3.1 (landscape) and 4.1 (water quality) and significant adverse effects against SA objective 1.1 (biodiversity protection) and 9.2 (recreation loss). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
The site is considered to have moderate sensitivity to mineral extraction due to its unified rural		

Agenda Pack 287 of 454

Criterion	Score (Impact)	Justification
<p>character and valued features. However, the well wooded character means impacts on the surrounding landscape could be mitigated by effective screening that is in character with the landscape.</p> <p>There are a limited number of properties within the vicinity of the site and only two cottages have open views of the site. Due to the flat landform impacts on these cottages could be mitigated though screening without losing the existing visual amenity.</p>		
Summary of HCC Highways Comments		Score:
<p>The site is considered to require further information/assessments to overcome some highways concerns.</p> <p>It is proposed that minerals would be transported over company land to the existing Water Hall Quarry processing plant. This being the case the amount of traffic generated by Water Hall Quarry will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. This would require further investigation.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact on the network (including the proposed routing of HGVs). Additionally, details of the proposed arrangement will be required so that HCC can assess its feasibility.</p>		

Site Selection Proforma: MLPCS020

Site Information

Site Name: Roundhill Wood		Site ID Number: MLPCS020	
			
Site Contact:	Agent – Stephen Bowley Planning Consultancy	Site Visit Date and Time:	19/09/16 - Morning
Site Area:	9.4 ha	Attendees:	Jonny Hill
Central Grid Ref.:	208179 493652	Planning History:	Part of the wider site in the landownership was subject to planning permission for the importation of clean waste to infill the old clay working (4/1142-86). This does not cover this site boundary.
District:	Dacorum		
Mineral to extract:	Brick Clay		

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The site is not located within an existing urban area.
Sites with planning permission for other development	No	The site does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The site has not previously been worked.
Proceed to Sieve 2	Yes.	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> • Within Resource Area? 	Yes	<p>The site is located within an area of brick clay resources, as identified on the digital BGS Resource Maps.</p> <p>On the BGS superficial geology maps those resources are identified as part of the 'Clay with Flints' deposits which directly overlie and infill solution hollows within the underlying Cretaceous Chalk.</p> <p>The site is located approximately 3km by road from the existing Bellingdon Brick Works within a similar but entirely separate part of the deposits.</p>
<ul style="list-style-type: none"> • Tonnage of Reserves Calculated? 	30,000t	<p>Evidenced by recent trial holes excavated by an experienced brick clay prospector (F Brown & Sons) together with historic evidence from former workings in the area. Not assessed in detail (and cannot be, due to the nature of the deposit). The proposal notes that the presence of clay suitable for use in brickmaking can be localised, which will mean that some of the clay within the site will be suitable for brick making, whilst some of it will not. This is usual. Approximate gross reserve estimated at 15,000 m³ (equivalent to circa 30,000 tonnes) over a 10-hectare area of working, within the overall 41-hectare site).</p>

Agenda Pack 290 of 454

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability Assessed by Proposer? 	Yes	Proposal submitted by a planning consultant who notes that the clay would be worked by or on behalf of HG Matthews – the specialist hand-made brick manufacturer at nearby Bellingdon.
<ul style="list-style-type: none"> Economic Viability Allows for Mitigation? 	Yes	Proposal acknowledges potential impacts, notably on replanted ancient woodland, and the need for mitigation. However, the site itself is commercial woodland and restoration would be simple, as part of the commercial forestry regime. The site is within the Chilterns AONB which could be a major constraint, but any impact is mitigated by the very small scale of working and the traditional nature of the industry.
<ul style="list-style-type: none"> Deliverability: operator willing? 	Yes	Proposal submitted by a planning consultant who notes that the clay would be worked by or on behalf of HG Matthews – the specialist hand-made brick manufacturer at nearby Bellingdon.
<ul style="list-style-type: none"> Deliverability: landowner willing? 	Yes	Original proposal was submitted on behalf of the landowner.
<ul style="list-style-type: none"> Other points to note: 		The revised proposal, which relates to only about 25% of the total resource and 25% of the total site area would be extracted over a period of 5 years, with an output rate of approximately 6,000tpa.
Adequacy of Supporting Information		Information is adequate to support the proposed allocation.
Suitability for consideration as a Specific Site allocation, on resource grounds	Yes	

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The site is not located within an Airport Safeguarding Zone.
Ancient Woodland	Very High	The site is located within Roundhill Wood Ancient Woodland which is also extends beyond the site.
Aquifers	High	The Environment Agency has confirmed that this site is located on a Principal aquifer.

Criterion	Score (Impact)	Justification
BAP Priority Species or Habitats	Medium	The site includes an area of deciduous woodland and is adjacent to additional areas of deciduous woodland.
BMV land	Medium	The site is wholly located within Grade 2 agricultural land.
Cumulative effects	Low	The site is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	The site contains a small water body.
Flood risk	Positive	The site is not located within Flood Zones 2-3b. The proposed use may include a dewatering pond, which has the potential to hold excess water in times of heavy rain. However, this is uncertain and will not be known until the planning application stage.
Geodiversity	Low	The site is not located near to a Local Geological Site or a national site of geological interest (SSSI).
Green Belt	Low	The site is located within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery may have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The entirety of the site is located within Source Protection Zone 3.
Heritage designations	Low	The site does not contain nor is located within close proximity to any heritage designations.
International and national ecological designations	Low	The site is not located within 250m of any international or national ecological designations.
Land ownership	Medium	The site is not in control of the industry.
Landscape designations	Very High	The site is entirely located within the Chilterns Area of Outstanding Natural Beauty.
Local Nature Reserves and Local Wildlife Sites	High	The site is located entirely within the Roundhill Wood Local Wildlife Site.

Agenda Pack 292 of 454

Criterion	Score (Impact)	Justification
Proximity of allocated residential or built development	Low	The site is not located within close proximity to an existing settlement nor is it located within or in close proximity to a site allocation within the Dacorum District Core Strategy 2013 or Dacorum District Draft Site Allocations DPD 2016.
Recreation	High	The site does not contain any PRoW, although two footpaths run alongside the northeast and northwest of the site.
Restoration	Low	Once mineral extraction has finished onsite the land will be restored to indigenous woodland and commercial forestry.
Sensitive land uses	High	The site is located immediately adjacent to a limited number of properties located on the opposite side of Cholesbury Road.
Sustainable transport	High	The site is not located within close proximity to the rail network or navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	High	The site is not located within or in close proximity to an Air Quality Management Area, and is not located within close proximity to the strategic road network.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this site option identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 3.1 (landscape) and 8.4 (agricultural land). In addition, minor negative effects are identified against SA objectives 2.1 (historic environment), 4.1 (water quality), 7.1 (recycling), 9.1 (health and well being) and 9.2 (recreation loss). Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
The site is considered to have an overall moderate sensitivity to mineral extraction due to the unified rural character of the area and its position in the AONB. Mineral extraction is likely to degrade valued features, such as the ancient woodland contained within the site. Furthermore, mineral extraction will affect people using the network of local footpaths that cross the site and a limited number of residential properties on the site boundary which would have open views to the site. Impacts on residents could be mitigated by limiting the extent of the workings at any one time and retaining tree cover around the site boundary for the life of the extraction to prevent views into the site.		
Summary of HCC Highways Comments		Score:
The site is considered to require further information/assessments to overcome some highways		

Agenda Pack 293 of 454

Criterion	Score (Impact)	Justification
<p>concerns.</p> <p>It is proposed that the clay would be worked on a campaign basis which could amount to 28 days within a single year. The site promoter estimates that this would result in traffic volumes of approximately 22 two-way movements per day. However, further information in the form of a Transport Assessment would be required to justify this volume of vehicle movements. Additionally, further information is required on the times these vehicle movements would take place.</p> <p>The site promoter states that there is an existing access through double gates via Cholesbury Road. No information has been provided on the dimensions or visibility of the existing gates. As part of any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p> <p>It is understood that vehicle movements would likely remain in the local area. However, further information on the proposed routing of HGV movements would be required to determine the potential impact on the network.</p> <p>The site promoter states that there are a number of public footways which cross the wider site. Therefore, HCC Public Right of Way Team would need to be consulted.</p>		

Preferred Area 1 Proforma

Preferred Area Information

Description:	Land close to the existing Hatfield Quarry
Area:	68 ha
Central Grid Ref.:	216314 532297
District:	St Albans District & Welwyn Hatfield District
Mineral to extract:	Sand and Gravel
Planning History:	The site has no relevant planning history.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The area is not located within an existing urban area.
Sites with planning permission for other development	No	The area does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The area has not previously been worked.
Proceed to Sieve 2	Yes	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	<p>Most of the area falls within Resource Block A of IMAU Report 67, whilst the western edge falls within Resource Block C of IMAU Report 71 (effectively a continuation of the same resource).</p> <p>This is confirmed by the digital BGS resource map which shows virtually the whole of the</p>

Criterion	Yes/No	Justification
		<p>area to be within an area of 'concealed glacio-fluvial deposits', overlain in one area (along a former watercourse) by 'sub-alluvial river terrace deposits'.</p> <p>The BGS superficial geology map indicates the main, lower resource to be part of the pre-glacial Kesgrave Catchment Subgroup, overlain ('concealed') in this area by glacial till.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	N/A	<p>This level of detail is not possible for a Preferred Area allocation, although the southern half of the area coincides with the Specific Site proposal for Hatfield Aerodrome (MLPC006), which has an estimated reserve of 8mt.</p> <p>A single IMAU borehole within the remaining northern part of the site indicates at least 6.7m of sand & gravel beneath an overburden of 5.4m.</p> <p>The land immediately to the north, in a continuation of the same deposit, has also been put forward as a Specific Site (MLPC008), with an estimated reserve of more than half a million tonnes (within a much smaller area).</p>
<ul style="list-style-type: none"> Economic Viability 	Probably Yes	<p>Given that the southern part of the area, and land directly to the north, have both been put forward as Specific Sites, with demonstrable economic viability, and that numerous other sites within this general area (and in the same geological deposit) have previously been successfully worked, there is every reason to suppose that the whole of this site will be economically viable.</p>
<ul style="list-style-type: none"> Deliverability 	Probably	<p>Unless there is landowner resistance or other planning proposals/allocations.</p> <p>It has been noted there is a plume of bromate coincident with this Preferred Area with a concentration of 750 µg/l to more than 1000 µg/l in a substantial part of the area. This may impact on the deliverability of mineral resource in this area and would need to be fully addressed.</p>
<ul style="list-style-type: none"> Other points to note: 		
Suitability for consideration as a Preferred Area allocation, on resource grounds		Yes (subject to any HCC information on deliverability).

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Medium	The Preferred Area is located within the Luton Airport Safeguarding Zone.
Ancient Woodland	Low	There is not any ancient woodland within 500m of the Preferred Area.
Aquifers	Medium	This Preferred Area is located within an undifferentiated Secondary Aquifer.
BAP Priority Species or Habitats	Medium	The Preferred Area is partly within an area identified as having no main habitat but additional BAP habitats present.
BMV land	Medium	The northern part of this Preferred Area is partially located within an area of Grade 2 agricultural land.
Cumulative effects	Low	The Preferred Area is not located within 250m of any existing mineral sites.
Ecological status of water bodies	High	There are a number of water bodies adjacent to the Preferred Area. The Ellen Brook runs through the eastern part of the Preferred Area. The River Nast also runs in a culvert through the Preferred Area.
Flood risk	Low	The Preferred Area is located entirely in Flood Zone 1.
Geodiversity	Low	The Preferred Area is not within proximity of any geological conservation sites.
Green Belt	Low	The Preferred Area is located entirely within the Green Belt and it is considered that development of the site for mineral extraction will not have an unacceptable impact on the openness of the Green Belt or conflict with the purposes of including land in the Green Belt. However, the use and location of mineral plant/machinery could have an unacceptable impact on the Green Belt. This is uncertain as a detailed design of the site will not be known until the planning application stage.
Groundwater vulnerability	Medium	The Preferred Area is located partially within SPZ 3 and partially within SPZ2. The central area of the site is not located within an SPZ. There is a plume of bromate coincident with this Preferred Area with a concentration of 750 µg/l to more than 1000 µg/l in a substantial part of the area. The implications of mineral extraction on groundwater contamination in

Criterion	Score (Impact)	Justification
		this area remain uncertain.
Heritage designations	Medium	Astwick Manor is a Grade II listed building, which lies adjacent to the northwest of the Preferred Area. The Preferred Area is also a possible area of archaeological interest.
International and national ecological designations	Low	The Preferred Area is not located in close proximity to any national or international ecological designations.
Land ownership	Medium	The area is not in control of the industry; however, the landowner is working with a mineral operator in respect of the southern area (MLPCS006).
Landscape designations	Low	The Preferred Area is not within or adjacent to any landscape designations.
Local Nature Reserves and Local Wildlife Sites	Medium	The Preferred Area is located immediately adjacent to Home Covert and Round Wood, which has been identified as a Local Wildlife Site.
Proximity of allocated residential or built development	Medium	The Preferred Area is located in close proximity to Land at North West Hatfield (SDS5 / Hat1), which is allocated in the emerging Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016) document.
Recreation	High	The Preferred Area is part of Ellenbrook Fields, which is an area of recreational green space with permissive footpaths suitable for walkers and cyclists.
Restoration	Low	The 2002-2016 Hertfordshire Minerals Local Plan Review suggests that restoration should be consistent with the Hatfield Aerodrome Supplementary Planning Guidance and planning permission ref S6/1999/1064/OP for the BAe site as a whole to deliver the proposed Country Park. It also suggests that there is potential for restoration to include extensive new woodland and amenity use.
Sensitive land uses	Medium	The Preferred Area is within close proximity to existing residential development in Hatfield, although it is largely separated from these dwellings by a series of water bodies in Ellenbrook Park.
Sustainable transport	High	The Preferred Area is not located within close proximity to the rail network or navigable

Agenda Pack 298 of 454

Criterion	Score (Impact)	Justification
		waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Low	The Preferred Area is located immediately adjacent to the strategic road network (A1057) but is not located within or in close proximity to an Air Quality Management Area.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this Preferred Area identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 4.1 (water quality) and 9.2 (recreation loss). Minor negative effects were identified against SA objectives 2.1 (historic environment), 7.1 (recycling), 8.4 (agricultural land), 9.1 (health and wellbeing) and 9.4 (aerodrome safety). Positive or neutral effects were recorded against all other SA objectives, with the exception of SA objective 5.2 (energy efficiency), to which effects were uncertain. Overall, this assessment is broadly consistent with the site selection study assessment summarised above.	
Summary of Landscape and Visual Sensitivity Comments		
<p>The area is considered to have an overall low-moderate sensitivity due to its former industrial use. The area is flat, largely screened by boundary vegetation and post operation restoration could improve the existing landscape character. The boundary vegetation screens views from the small number of residential properties in the vicinity of the site. There are a small number of locations with more open or filtered views of the area; however, impacts can be fully mitigated by additional screening without an adverse impact on visual amenity.</p>		
Summary of HCC Highways Comments		Score:
<p>This area is considered to require further information/assessment to overcome some highways concerns.</p> <p>The area could be an extension of a site locally known as Hatfield Aerodrome (planning application reference: PL/0755/16). HCC Highways recently commented on this planning application and whilst no objection was raised, concerns were raised. These concerns were overcome by limiting the number of vehicle movements associated with the site. Any extension is likely to raise further concerns.</p> <p>Further information is required in the form of a Transport Assessment detailing the access arrangements; proposed trip generation; impacts and cumulative impact on Hatfield Road / Ellenbrook Junction and Hatfield Road/Comet Way junction; Public Rights of Way; the safety of all mode users along Hatfield Road; and a broader assessment of the collision data to take into account the proposed route for HGV movements.</p>		

Agenda Pack 299 of 454

Preferred Area 2 Proforma

Site Information

Description:	Land to the north of the existing Rickneys Quarry
Area:	61 ha
Central Grid Ref.:	216260 532275
District:	East Hertfordshire District
Mineral to extract:	Sand and Gravel
Planning History:	The preferred area has been subject to a number of applications (3/1653-95, 3/0959-90 and 3/0711-88) all of which were withdrawn. A smaller part of the preferred area has been subject to an application 3/2077-13 (varying 3/0629-06) which has a resolution to grant.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The area is not located within an existing urban area.
Sites with planning permission for other development	No	The area does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	No	The area has not been previously worked.
Proceed to Sieve 2	Yes	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Within Resource Area? 	Yes	All but a very small part of the area falls within Resource Block B of IMAU Report 112. This is confirmed by the digital BGS Resource Map which identifies the resource as 'glacio fluvial

Criterion	Yes/No	Justification
		<p>deposits'. The BGS superficial geology map shows the deposits to be part of the pre-glacial Kesgrave Catchment Subgroup, overlain in part of the northern area by glacial till.</p> <p>The proposed allocation comprises two separate parcels of land, to the north and south of the existing Rickneys Quarry, where the same resources have been partially worked.</p> <p>The northern area has been subject to previous planning applications for mineral extraction dating from 1988 to 1995, all of which were withdrawn.</p>
<ul style="list-style-type: none"> Tonnage of Reserves Calculated? 	N/A	<p>This level of detail is not possible for a Preferred Area allocation, although the southern part of the area coincides with the Specific Site proposal (Land at Ware Park - MLPC003), which has an estimated reserve of 2.6mt.</p> <p>Three IMAU boreholes close to the western, northern and eastern boundaries of the larger, northern part of the site indicate between 8.9 and 12.4m of sand & gravel beneath an overburden of between 0.3 and 3.8m, suggesting a comparable depth of resource over a larger surface area.</p>
<ul style="list-style-type: none"> Economic Viability 	Probably Yes	<p>Given that the southern part of the area has been put forward as Specific Site, with demonstrable economic viability, and that the land in between the two parts of the allocations is successfully being worked, there is every reason to suppose that the whole of this site will be economically viable.</p>
<ul style="list-style-type: none"> Deliverability 	Probably	<p>Unless there is landowner resistance or other planning proposals/allocations.</p>
<ul style="list-style-type: none"> Other points to note: 		
Suitability for consideration as a Preferred Area allocation, on resource grounds		Yes (subject to any HCC information on deliverability).

Sieve 3

Criterion	Score (Impact)	Justification
Airport Safeguarding Zones	Low	The Preferred Area is not located within an

Agenda Pack 301 of 454

Criterion	Score (Impact)	Justification
		Airport Safeguarding Zone.
Ancient Woodland	Very High	There are two areas of replanted ancient woodland within the Preferred Area and there are further areas of ancient woodland adjacent to the area.
Aquifers	Medium	This Preferred Area is located partly within a Secondary A Aquifer and partly within an undifferentiated Secondary Aquifer.
BAP Priority Species or Habitats	Medium	The Preferred Area contains an area of deciduous woodland, which is a BAP priority habitat.
BMV land	Medium	This Preferred Area consists entirely of Grade 3 agricultural land.
Cumulative effects	Medium	The Preferred Area is adjacent to Rickneys, Chapmore End, which has planning permission for sand and gravel extraction (extension of existing quarry), although the site has not been worked. There are some dwellings in proximity of the site, particularly at Chapmore End.
Ecological status of water bodies	Low	There are no watercourses within proximity to the Preferred Area.
Flood risk	Low	The Preferred Area lies entirely within Flood Zone 1.
Geodiversity	Low	This Preferred Area is not within or adjacent to any geodiversity conservation sites.
Green Belt	Low	The Preferred Area lies entirely within the Green Belt but minerals working is unlikely to conflict with the purposes of Green Belt designation.
Groundwater vulnerability	High	The southern part of this Preferred Area is located within SPZ 1 and there are also substantial areas of SPZ 2 within the area.
Heritage designations	Medium	Whilst there are three Grade II listed buildings in Chapmore End, none of these are within or immediately adjacent to the Preferred Area. There is a possible area of archaeological interest within this Preferred Area.
International and national ecological designations	Low	This Preferred Area is not within close proximity to national or international ecological designations.

Agenda Pack 302 of 454

Criterion	Score (Impact)	Justification
Land ownership	Medium	The Preferred Area is within multiple ownership with part of the land subject to existing mineral rights.
Landscape designations	Low	This Preferred Area is not within or adjacent to any landscape designations.
Local Nature Reserves and Local Wildlife Sites	Medium	Upper Stonyhills Wood and Flowersash Wood Key Wildlife Sites lie partially within the Preferred Area. In addition, Lower Stonyhills Wood and Bardon Clumps Key Wildlife Sites lie adjacent to the Preferred Area.
Proximity of allocated residential or built development	Low	There are no sites for planned built development within proximity of this Preferred Area. Although it should be noted that the consultation on the East Herts pre-submission version of the Local Plan took place between November and December 2016. This version of the Plan includes Draft Policy Hert4 – a preferred residential development in close proximity MLPCS003.
Recreation	High	Several public rights of way cross this Preferred Area, including Bengo Rural 014, Bengo Rural 012, Bengo Rural 022, Bengo Rural 002 and Bengo Rural 009.
Restoration	Low	The 2002-2016 Hertfordshire Minerals Local Plan Review suggests that proposals will need to demonstrate that there is a sufficient balance of material to achieve proposed restoration.
Sensitive land uses	Medium	The Preferred Area is in proximity to dwellings at Chapmore End, Dimmings, Stonyhill and the former Rickneys Farmhouse.
Sustainable transport	High	This Preferred Area is distant from the rail network and the navigable waterway network.
Sustainable transport and pollution to the environment (dust, air, water)	Medium	The Preferred Area is within proximity of the strategic road network. There is an AQMA in the centre of Hertford, but it is uncertain whether vehicles from minerals workings in the Preferred Area would use this route.
Summary of Sustainability Appraisal		
Summary of SA Findings (incorporating HRA findings)	The SA of this Preferred Area identifies significant negative effects against SA objectives 1.1 (biodiversity protection), 1.3 (biodiversity air pollution effects), 2.1 (historic environment), 4.1 (water quality) and 9.2 (recreation loss). Minor negative	

Agenda Pack 303 of 454

Criterion	Score (Impact)	Justification
		effects were identified against SA objectives 7.1 (recycling), 8.4 (agricultural land) and 9.1 (health and wellbeing). Positive or neutral effects were recorded against all other SA objectives, with the exception of SA objective 5.2 (energy efficiency), to which effects were uncertain. Overall, this assessment is broadly consistent with the site selection study assessment summarised above.
Summary of Landscape and Visual Sensitivity Comments		
<p>Overall this site is considered to have a moderate sensitivity. Although landscape is gently undulating and the site is largely enclosed, the openness to the east could result in an adverse impact on the unified rural character of the wider river valley. Additionally, mineral workings could result in the loss of valuable landscape features including hedgerows and Ancient Woodland. Impacts could be partially mitigated by further screening and extraction operations set back from the ancient woodland. Views from properties and Rights of Way tend to be screened by hedgerows, tree groups and woodland, and could be mitigated through further planting.</p>		
Summary of HCC Highways Comments		Score:
<p>The area would be accessed via adjoining land at Rickney's Quarry. Further information/assessments is required to overcome some highways concerns.</p> <p>At this high level HCC has no reason to object to the site. However, further information is required in the form of a Transport Assessment detailing the existing operation at Rickney's Quarry, proposed trip generation and the impact this will have on local junctions especially the A602; a broader assessment of the collision data to take into account the proposed route for HGV movements; the access arrangement and suitability for increasing HGV movements in this location; and detailed information on the impact the proposals will have on the footpaths surrounding the site.</p> <p>It should also be noted that there are additional proposals for mineral extraction for the surrounding land. Therefore, any further assessment will need to consider the cumulative impact of the proposals on the network.</p>		

Preferred Area 3 Proforma

Site Information

Description:	Land to the south-east of the existing Tyttenhanger Quarry
Area:	89 ha
Central Grid Ref.:	203646 519576
District:	Hertsmere District
Mineral to extract:	Sand and Gravel
Planning History:	The preferred area has been subject to two planning applications. 0/1353-06 for the eastern extension of existing quarry south of Coursers Road and progressive restoration using inert fill material. 0/0262-12 for the construction and operation of an Anaerobic Digestion facility.

Sieve 1

Constraint	Entirely or partly located within the constraint (Yes/No)	Justification
Urban areas	No	The area is not located within an existing urban area.
Sites with planning permission for other development	No	The area does not have planning permission for an incompatible use with a site area greater than 5ha.
Previously worked areas	Yes	The area has been worked.
Proceed to Sieve 2	Yes	
Justification	See above.	

Sieve 2

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> • Within Resource Area? 	No	The resource has been extracted by previous workings.
<ul style="list-style-type: none"> • Tonnage of Reserves Calculated? 	Nil	See above.

Criterion	Yes/No	Justification
<ul style="list-style-type: none"> Economic Viability 	Nil	See above.
<ul style="list-style-type: none"> Deliverability 	Nil	See above.
<ul style="list-style-type: none"> Other points to note: 		
Suitability for consideration as a Preferred Area allocation, on resource grounds		No- the area comprises land to the south-east of the existing Tyttenhanger Quarry, almost all of which has now been worked, as extensions to that site. It should now be removed as a Preferred Area.

Appendix 2

Hertfordshire Highways Department assessment of site options

Mineral Local Plan Call for Sites Highways Review

This background paper has been prepared in order to provide the details of a high level highway review on sites put forward through the call for sites for the Minerals Local Plan review.

This is not a detailed assessment of the potential implications on the highway network as this would be more appropriate at the planning application stage, where a specific site can be assessed in detail and highway improvements suggested if necessary.

General highways comments have been written for each of the 19 sites, and a traffic light ranking of red, amber, green and grey (for sites lacking information) has been used to determine the potential impact on the local highway network using the following grading set out in the table below:

Proposed sites that have no fundamental highway objection in principle. Mitigation measures identified in a site specific Transport Assessment may still be required though.	Green
Proposed sites where further information/assessments is required to overcome some highways concerns. A solution may be possible through mitigation measures set out in a site specific Transport Assessment that accompanies a planning application.	Amber
Proposed sites where significant concerns are identified, which are likely to attract highway objections. Further detailed analysis and suggested mitigation measures will need to accompany a planning application, in addition to a site specific Transport Assessment.	Red
Not able to be assessed due to a lack of information.	Grey

The transportation of minerals may initially involve the use of internal haul roads. However, once processed, the extracted minerals would require onward distribution onto the highway network. This may result in highway implications which would need to be investigated further as part of a planning application.

The highway impact of minerals development can be magnified if there are a number of permissions granted for mineral development within close proximity, or if permission to extract is extended, resulting in many years of mining activity in one location. Mitigating measures might include such measures as the phasing of extraction operations so that one site is completed before a second commences, a restriction on the number of HGV movements or the timetabling of such movements, undertaking pre-extraction landscaping works to reduce cumulative visual impacts and addressing needed junction improvements. Where cumulative impacts have not been, or are unable to be satisfactorily addressed, the Highway Authority could have grounds to refuse permission for that development.

It should be noted that this document is not a substitute for a full Transport Assessment that is required for sites that are subsequently allocated in the Minerals Local Plan. All planning applications should be supported by a Transport Statement or Transport Assessment, as set out in the Chapter 7 of Section 1 of the Hertfordshire County Council Highway Design Guide, Roads in Hertfordshire. In developments on sensitive locations where there is a significant highway safety/capacity concern and the potential trip generation is below the

threshold for a Transport Assessment, the highway authority may ask for a detailed analysis in support of an application.

For any new access or significant alterations to an existing access, a Stage 1 Road Safety Audit must be carried out. Also, an access may be refused due to poor design/visibility or inadequate capacity. Therefore, it is difficult to provide specific comments on a sites suitability without access details and safety audit reports.

Site Number	Site Name	Highway Authority Assessment	Traffic Light
1	Cromer Hyde Farm	<p>The suggested site abuts Marford Road (B653) to the north and Green Lanes to the east. Marford Road is a Classified Road B Secondary Distributor.</p> <p>Green Lanes is an unnumbered Classified Road – C, L2 Local Access road.</p> <p>Significant concerns have been identified for this site which are likely to attract highway objections.</p> <p>No information has been provided on the proposed access arrangements for the site.</p> <p>Over the last 5 years there have been a total of 12 collisions resulting in slight injuries on Marford Road within direct proximity of the site. Five of these collisions occurred at the intersection of Marford Road and Green Lanes. This indicates that there may be existing safety issues at this junction. There have been 2 collisions resulting in slight injuries and 2 collisions resulting in serious injuries on Green Lanes directly abutting the site.</p> <p>There is a school and a church located to the east of the site off Lemsford Village. More information on the proposed routing of HGV vehicles is required to assess whether there will be any safety implications for these existing land uses.</p> <p>In order to assess this site further HCC highways would require a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV vehicles).</p> <p>If this site were to be taken forward, it would also need to be assessed in relation to the potential cumulative impact of site 8 and site 9 to assess the impact on the network, this will also need to consider any phasing of extraction operations. Additionally, it should be noted that the site abuts another site which has been highlighted as a proposed housing</p>	Red

		allocation site for 2031 through the Welwyn Hatfield Proposed Development Local Plan. However, the cumulative impact of this can only be assessed when more information on the phasing of extraction is provided.	
2	Land at Salisbury Hall	<p>The site is located on agricultural land. The Colney Fields Shopping Park is located north of the M25.</p> <p>Significant concerns have been identified for this site which are likely to attract highway objections.</p> <p>The Countywide strategic highway model, COMET, highlights the A1087/B556 junction as having existing capacity problems.</p> <p>It is suggested by the site promoter that mineral HGV transportation movements from the proposed site to the Tyttenhanger processing plant site would use the B556 and the A414.</p> <p>This would mean that all HGV movements would be directed through the A1087/B556 roundabout. This roundabout also serves as a main access point for vehicles travelling to the Colney Fields Shopping Park. Therefore, the cumulative impact of the vehicles associated with the site with the vehicles generated by the Colney Fields Shopping Park would need to be assessed to determine whether this routing arrangement is feasible.</p> <p>In order to assess this site further HCC highways would require a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements).</p> <p>Additionally, it should be noted that this site is within close proximity of the proposed Radlett Rail Freight Interchange and should therefore be considered in regards cumulative impacts and to the changes of the network associated with the Radlett Rail Freight Interchange.</p>	Red

3	Land at Ware Park	<p>The site promoter suggests access directly onto Wadesmill Road with all traffic to and from the North via the A602- majority of output would be via the A10/A602 junction. Wadesmill Road is a numbered classified secondary distributor road with a speed limit of 60mph and a 7.5 tonne weight limit.</p> <p>The site promoter has also submitted an application (ref: PL0776/16) which has received comments from HCC highways. During this correspondence HCC highways stated that before HCC highways can support the application the following further information is required:</p> <ul style="list-style-type: none"> • The applicant will need to determine what level of impact the site will have on the A602 junction and undertake further discussions with HCC highways to determine what level of mitigation would be deemed necessary. • The applicant will need to provide a broader assessment of the collision data to take into account the proposed route for HGV movements; • The applicant will need to provide additional information on the proposed access arrangement in relation to the Rickney's Quarry site access; • The applicant will need to provide additional information on the impact the site will have on Footpath 1 route and consult further with the HCC Public Right of Ways Team; • The applicant will need to provide additional information on the proposed permissive paths along the eastern field edge and along the farm track in order for HCC to assess whether the proposed path is acceptable. <p>As such, HCC highways will assess the site further once the additional information has been submitted by the applicant.</p>	Amber
4	Land at Pynesfield	<p>The proposed site is located on agricultural land. The A412 runs to the east of the site and Tilehouse Lane borders the site to the North and West. The site is roughly 17ha of which 9ha would be for the extraction of minerals. The surrounding area is open Green Belt land with little other development in the area.</p>	Green

		<p>Access to the site is from Tilehouse Lane which has a junction access to A412. Tilehouse Lane is a rural access lane with narrow width and hedges either side.</p> <p>The A412 is known locally as the North Orbital Road which forms part of the local strategic highway network and connects with M40 to the South and M25 (junction 17) to the north. A412 is of average 9m wide with grass verges with side with a speed limit of 50 mph near the site</p> <p>HCC highways commented on the planning application for this site under reference 8/1254-15. During this consultation HCC highways did not wish to object subject to conditions regarding vehicle restrictions, the impact of construction vehicles onto the local area and also a routing agreement.</p>	
5	Nashes and Fairfolds Farm	<p>The site is proposed for the extraction of sand and gravel within the next 1 to 5 years.</p> <p>The access is proposed either direct to House Lane or via the adjacent Hatfield Quarry. House Lane is a local distributor road subject to a 30mph speed limit and a weight restriction of 7.5 tonnes. House Lane is narrow road and not suitable for HGV movements and therefore the site poses significant highways concerns.</p> <p>More information is required for HCC highways to assess the site including a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part of any application, information on the proposed access arrangement will be required so that HCC can assess its feasibility.</p>	Red
6	Hatfield Aerodrome	<p>This site is currently an allocated site in the 2007 Minerals Local Plan.</p> <p>The applicant submitted a planning application (reference: PL\0755\16) which is currently being reviewed by HCC Highways.</p>	Amber

		<p>The site promoter has stated that most of HGV traffic would route to the east towards the A1(M).</p> <p>The site promoter states access onto the A1057. A preliminary design has been prepared to accompany the current planning application. However, it is understood that a Stage 1 Road Safety Audit (RSA) is being undertaken. HCC highways will provide further comment on the feasibility of the site once the Stage 1 RSA has been submitted and reviewed.</p>	
7	Barwick Farm	<p>The site is proposed for the extraction is for sand, gravel, and other minerals within the next 1 to 5 years.</p> <p>The site is located within agricultural land.</p> <p>No information has been provided on proposed access points or HGV routing. Due to a lack of information the site cannot be assessed. However, it should be noted that the cumulative impacts of the site may need to be reviewed in relation to Site 15 (Plashes Farm) in order to assess the impact on the network.</p> <p>Further detailed analysis will need to be provided in a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV vehicles). Additionally, information on the proposed access arrangement will be required so that HCC can assess its feasibility.</p>	Grey
8	Hatfield Furze Field	<p>The Hatfield Furze Field site is proposed as an extension to the existing Hatfield Quarry.</p> <p>There is an existing access off Oaklands Lane.</p> <p>It is proposed that the existing conveyor system would be used under Coopers Green Lane to transport sand and gravel to the existing plant site located off Oaklands Lane. However, no further information has been provided on the onwards distribution of minerals.</p>	Amber

		<p>Information on the proposed trip generation and trip distribution is required so that HCC highways can assess what impact the additional HGV movements would have on the network. Also, it should be noted that there are additional proposed sites for mineral extraction for the surrounding land (Site 1, Site 5, Site 6 and Site 9). Therefore, any further assessment would need to consider the cumulative impact of these sites on the network.</p> <p>Additionally, it should be noted that the proposal overlaps with another site which has been highlighted as a proposed Housing Allocation Site for 2031 through the Welwyn Hatfield Proposed Local Plan. However, the cumulative impact of this can only be assessed when more information on the timing of development is available.</p>	
9	Land adjoining Coopers Green Lane	<p>The site is proposed as an extension to the existing Hatfield Quarry.</p> <p>It is suggested that material would continue to be processed at the established processing plant area at Hatfield quarry. Sand and Gravel would be transported to the existing plant site via conveyer. The existing access off Oaklands Lane would continue to export all sand and gravel via HGV.</p> <p>It is proposed that operations would be likely to begin in the next 1 to 5 years (succeeding the Hatfield Furze Field site). As stated previously, information on the proposed trip generation is required so that HCC highways can assess what impact the additional HGV movements will have on the network. As stated above it should be noted that there are additional sites for mineral extraction for the surrounding land (Site 1, Site 5, Site 6 and Site 8). Therefore, any further assessment will need to consider the cumulative impact of the sites on the network. Further information is required on the phasing of extraction operations in order to assess this.</p> <p>Public Right of Ways may need to be diverted. As such, the HCC's Public Right of Ways Team would also need to be consulted.</p>	Amber

		Additionally, the site has been highlighted as a proposed Housing Allocation Site for 2031.	
10	The Briggens Estate	<p>The site is currently in agricultural use and forms part of The Briggens Estate situated immediately to the north of the A414 and west of Harlow.</p> <p>The Countywide strategic highway model, COMET, highlights this junction (A414/B181) as having existing capacity problems. The site promoter sets out that access is anticipated to be taken via Roydon Road (B181) with HGV movement directed to the A414. This site, therefore, poses significant highways concerns.</p> <p>Additionally, discussions with HCC Highways Network Management would be required regarding the HGV route and weight restrictions on the network.</p>	Red
11	Water Hall Farm Fields Area	<p>The proposed rate of extraction is 170,000 tonnes per year and duration of operation until completion 5.5 years.</p> <p>The Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site requires further investigation.</p> <p>It is stated that minerals can be carried over private land directly to the processing plant at Water Hall.</p> <p>It should be noted that the material extracted from the above sites will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The site would need to be assessed in relation to the potential cumulative impact of sites 12, 14, 16, 17, 18 and 19 to assess the impact on the B158. In order to assess the</p>	Amber

		cumulative impacts further information on phasing and timing of the mineral extraction would be required.	
12	Waterhall Broad Green	<p>It is proposed that the rate of extraction would be 150,000 tonnes per year and the duration of operation until completion 3 years.</p> <p>It is proposed that mineral would be carried over private land, through Bunkers Hill Quarry, across Lower Hatfield Road directly to the processing plant at Water Hall.</p> <p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p> <p>It should be noted that the material extracted from the above sites will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 14, 16, 17, 18 and 19 to assess the cumulative impact on the B158. In order to assess the cumulative impacts further information on phasing and timing of the mineral extraction would be required.</p>	Amber
13	Harry's Field Bovingdon Brickworks	<p>The proposed site is for the extraction of brick and clay. The site is within agricultural land.</p> <p>To the south east of the site there is another site which has been subject to a planning application (Ref: 4/2819-15). HCC highways provided comments on this application and did not wish to object subject to suitable conditions.</p>	Amber

		<p>It is proposed that the Harry's Field site would use the same access route that would be constructed under the planning consent of 4/2819-15. Therefore, the access arrangement would be subject to the conditions outlined in the Decision Notice for 4/2819-15.</p> <p>Additionally, as part of this site the site promoter would need to provide additional information on the number of HGV movements the site will generate in order to determine what level of impact the additional HGV movements will have on the network and whether the intensification of the proposed access is acceptable.</p>	
14	Bunkers Hill South	<p>The proposed site is within existing greenfield agricultural land. The proposed site area is adjacent an existing processing plant area at Water Hall Quarry which is located on Lower Hatfield Road.</p> <p>Lower Hatfield Road is a Classified B, Secondary Distributor.</p> <p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p> <p>It is stated that the minerals would be carried over private land, through Bunkers Hill Quarry, across Lower Hatfield Road directly to the processing plant. This would result in an increase of HGV vehicles crossing Lower Hatfield Road which could lead to congestion and safety issues along this route. Further information is required with regards to the level of intensification the site would create at this access and also information on how this would be managed with the existing services.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p>	Amber

		<p>The proposed access road would be via a 50m concrete access road. The internal haul road would be surfaced with gravel. Wheel washing facilities, weighbridge and offices will be provided.</p> <p>There is existing speed reduction signage along Lower Hatfield Road.</p> <p>It should be noted that the material extracted from this site will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 14, 16, 17, 18 and 19 to assess the cumulative impact on the B158. However, the cumulative impact of this can only be assessed when more information on the phasing of extraction is available.</p>	
15	Plashes Farm	<p>Proposed access onto Gore Lane with the HGV movements directed to the A10.</p> <p>It is proposed that the site access would consist of a concrete access road with the internal haul road surfaced with gravel.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p> <p>Discussions with HCC highways would be required to determine the level of improvements would be required/appropriate for Gore Lane.</p> <p>It should be noted that the cumulative impacts of the site may need to be reviewed in relation to Site 7 (Barwick Farm) in order to assess the cumulative impact on the network.</p>	Amber

16	Howe Green	<p>It is proposed that the rate of extraction would be 150,000 tonnes per year and duration of operation until completion 6.5 years.</p> <p>No details of access arrangements have been provided. If access is proposed to be from Robins Nest Hill, it is anticipated that improvements will be required to accommodate the proposal.</p> <p>It should be noted that the material extracted from this site will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p> <p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 12, 14, 17, 18 and 19 to assess the cumulative impact on the B158. In order to assess the cumulative impacts further information on phasing and timing of the mineral extraction would be required.</p> <p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p>	Grey
17	Robins Nest Hill	The proposed rate of extraction is 150,000 tonnes per year. Duration of operation until completion 6.5 years.	Amber

		<p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p> <p>Robins Nest Hill has constraints which could be overcome by modest highway improvements. Thereafter transport either through restored Pollards Wood area or by Lower Hatfield Road to Water Hall processing area.</p> <p>It should be noted that the material extracted from this site will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p> <p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 12, 14, 16, 18 and 19 to assess the cumulative impact on the B158. However, the cumulative impact of this can only be assessed when more information on the phasing of extraction is available.</p>	
18	Southfield Wood House	<p>It is stated that the rate of extraction would be 150,000 tonnes per year and the duration of operation until completion 3.3 years.</p> <p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p> <p>Access would be directly over company land to Water Hall processing area. Additionally, it should be noted that the material extracted from this site will be processed at Water Hall.</p>	Amber

		<p>This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p> <p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 12, 14, 16, 17, and 19 to assess the cumulative impact on the B158. However, the cumulative impact of this can only be assessed when more information on the phasing arrangements of the extraction is available.</p>	
19	Pipers End	<p>It is stated that the rate of extraction would be 150,000 tonnes per year and the duration of operation until completion 9.3 years.</p> <p>It is proposed that the access would be directly over company land to Water Hall processing area.</p> <p>It should be noted that the Countywide strategic highway model, COMET, highlights the B158/B1455 junction as having existing capacity problems. Therefore, the impact of this site could contribute towards a cumulative impact which requires further investigation.</p> <p>It should be noted that the material extracted from this site will be processed at Water Hall. This being the case the amount of traffic generated by Water Hall will need to be carefully assessed to ensure that the level of traffic does not exceed that accepted in the past.</p> <p>Further information is required in the form of a Transport Assessment detailing the proposed trip generation and the impact of the network (including the proposed routing of HGV movements). Additionally, as part any application, details on the proposed access arrangement will be required so that HCC can assess its feasibility.</p>	Amber

		<p>The site will need to be assessed in relation to the potential cumulative impact of sites 11, 12, 14, 16, 17 and 18 to assess the cumulative impact on the B158. In order to assess the cumulative impacts further information on phasing and timing of the mineral extraction would be required.</p>	
--	--	--	--

HCC Highways Comments on the Preferred Areas for the adopted Minerals Local Plan 2007

<p>Preferred Area No.1</p>	<p>Land at Former British Aerospace</p>	<p>This preferred area lies to the west of Hatfield and access is anticipated to be taken from the A1057 Hatfield Road. Traffic will be directed eastbound to A1001.</p> <p>It is noted that this site is highlighted within the Adopted Minerals Local Plan (2007) as part of the preferred area.</p> <p>It appears that this site could be an extension of a site locally known as Hatfield Aerodrome (planning application reference: PL/0755/16). HCC Highways recently commented on this planning application and whilst raise no objection subject to conditions a number of concerns were raised. These concerns were overcome by limiting the number of vehicle movements associated with the site. Therefore any extension is likely to raise further concerns.</p> <p>Other than that set out above no information has been provided to support the proposals. Further information will ultimately be required to demonstrate that the proposals are feasible. Further detailed analysis will be required to be provided within a Transport Assessment and will need to include (but not limited to):</p> <ul style="list-style-type: none"> • Details of the access arrangements, it is noted that it proposed access will be taken from the A1057 Hatfield Road. Confirmation as to whether this will be via the access for application PL/0755/16 or an additional access will need to be provided. It will also need to be demonstrated that a safe and suitable access can be provided; • Determine the trip generation associated with the proposals and also the cumulative impact when considering PL/0755/16; • Determine the impact and cumulative impact on Hatfield Road/ 	<p>Grey</p>
----------------------------	---	--	--------------------

		<p>Ellenbrook Junction and Hatfield Road/ Comet Way junction;</p> <ul style="list-style-type: none"> • Details of Public Rights of Way; • Details regarding the safety of all mode users along Hatfield Road; and • A broader assessment of the collision data to take into account the proposed route for HGV movements. <p>HCC will assess the proposal once the additional information has been submitted by the applicant.</p>	
Preferred Area No.2	Land adjoining Rickney's Quarry	<p>Access to the adjoining land is proposed via the existing Rickney's Quarry access from Wadesmill Road. It is acknowledged that all traffic will travel to and from the North via A602.</p> <p>Wadesmill Road is a numbered classified secondary distributor road with a 60mph speed limit and a 7.5 tonne weight limit.</p> <p>It is noted that this site is highlighted within the Adopted Minerals Local Plan (2007) as a preferred area and that the intention for this site would be an extension to the existing Rickney's Quarry.</p> <p>No information other than that above has been provided. At this high level HCC has no reason to object to the site. However, further information is required to assess whether the proposal is feasible. Further detailed analysis will need to accompany a planning application in the form a Transport Assessment. The additional information will need to include (but not limited to):</p> <ul style="list-style-type: none"> • Details of the existing operation at Rickney's Quarry, (e.g. times of 	Amber

		<p>operation, size of vehicles, parking, access arrangements);</p> <ul style="list-style-type: none">• Determine the trip generation associated with the proposals and impact this will have on local junctions especially A602. It is advised that early discussions with HCC would be prudent particularly to agree mitigation if required;• A broader assessment of the collision data to take into account the proposed route for HGV movements;• The access arrangement and the suitability for increasing HGV movements in this location;• Detailed information on the impact the proposals will have on the footpaths surrounding the site and consult with the HCC Public Rights of Way Team. <p>It should also be noted that there are additional proposals for mineral extraction for the surrounding land. Therefore, any further assessment will need to consider the cumulative impact of the proposals on the network.</p> <p>HCC will assess the proposal further once the additional information has been submitted by the applicant.</p>	
--	--	--	--

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Guidance is available on [Compass](#). Completion of an EqIA should be proportional and relevant to the anticipated impact of the project on equalities. The form can be tailored to your project and should be completed before decisions are made. Key EqIAs should be reviewed by the Business Manager or Service Head, signed off by your department's Equality Action Group (EAG) and sent to the Equality and Diversity team to publish on HertsDirect. For support and advice please contact equalities@hertfordshire.gov.uk.

STEP 1: Responsibility and involvement

Title of proposal/ project/strategy/ procurement/policy	Review of Minerals Local Plan	Head of Service or Business Manager	J Tiley
Names of those involved in completing the EqIA:	T Carter-Lyons (TCL) G Nicholson (GN) J Greaves (JG) M Wells (MW) D Hodbod (DH)	Lead officer contact details:	T Carter-Lyons 01992 556254 G Nicholson 01992 556732
Date completed:	January 2015	Review date:	(Consultation date)

STEP 2: Objectives of proposal and scope of assessment – what do you want to achieve?

Proposal objectives: – what you want to achieve – intended outcomes – purpose and need	Fulfil the statutory obligation of the county council to have an adopted Minerals Local Plan. The outcome will result in the production of an updated Minerals Local Plan. The purpose of which is to ensure that the county can meet its required demand for minerals.
Stakeholders: Who will be affected: the public, partners, staff, service users, local Member etc	Public; All Members; Statutory Bodies; District/Borough Councils Parish Councils; Town Councils; Industry; Community Organisations; Other internal council departments.

STEP 3: Available data and monitoring information

Relevant equality information For example: Community profiles / service user demographics, data and monitoring information (local and national), similar or previous EqIAs, complaints, audits or inspections, local knowledge and consultations.	What the data tells us about equalities
---	--

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Population ¹	1,129,000. 29.25% aged 30-49 18.87% aged 0-14 17.99% aged 15-29 17.78% aged 50-64 16.11% aged 65 and over
Age Structure ²	Most residents in Herts are within the 45-49 year age range (7.78%) The lowest numbers of residents are 90 years and above (0.85%) Of 0-45 year olds, the age range with the least residents in Herts is 20-24 years.
Gender ³	49% males 51% females
Ethnicity ⁴	In 2011, the proportion of the total population that were in a minority ethnic group (i.e. not White-British) was 19.18%.
Religion ⁵	In 2011, 58.25% Christian Second highest proportion was 26.53% no religion
Maternity ⁶	In 2013 there were 14,503 live births to mothers who were usually resident in Herts The General Fertility Rate (GFR) for Hertfordshire in 2013 was 64.4 live births per 1,000 women aged 15–44
Marriage ⁷	In 2011 there were 5,056 marriages registered in Hertfordshire
Civil Partnership ⁸	In 2012 there were 91 civil partnerships in Hertfordshire
Marital Status ⁹	49.87% married or in civil partnership 8.49% divorced or formerly in a civil partnership 6.53% widowed or person from a civil partnership

¹ www.hertslis.org (mid-2012 estimate)

² www.hertslis.org (mid-2013 estimate)

³ ONS, Census 2011

⁴ www.hertslis.org

⁵ ONS, Census 2011

⁶ ONS Birth Summary Tables 2013

⁷ ONS Census 2011

⁸ ONS, Civil Partnership Formations Table 2012

⁹ ONS, Census 2011

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

<p>Living as a couple¹⁰</p> <p>Carers¹¹</p> <p>Disability¹²</p> <p>Learning Disabilities¹³</p> <p>Household Composition¹⁴</p> <p>Mosaic Composition¹⁵</p> <p>Language¹⁶</p> <p>Education¹⁷</p> <p>In addition to the specific information relating to Hertfordshire provided above, there is other information to consider as follows:</p>	<p>2.47% separated 0.15% in civil partnership</p> <p>60.89% in 2011</p> <p>9.73% in 2011</p> <p>14.32% are limited by activities 85.68% are not limited by activities</p> <p>Estimates suggest that 26,500 people in Hertfordshire (2.4% of the population) may have Learning Disabilities</p> <p>41.77% of households with children 37.33% of households were one family with a couple married or in a civil partnership 28.38% were one person households 20.31% were households with people aged 65 and over 9.88% were one family households with a cohabiting couple 9.75% were one family households with a lone parent</p> <p>Middle incomes suburbia was the most prevalent category (16.38%) Reliant families was the least prevalent category (0.84%)</p> <p>93.94% speak English as their main language</p> <p>The highest percentage of residents has level 4 or more qualifications (32.14%) The lowest percentage is apprenticeship (3.25%).</p>
--	--

¹⁰ ONS, Census 2011

¹¹ www.hertslis.org

¹² www.hertslis.org

¹³ www.hertslis.org Health and Wellbeing in Hertfordshire pages

¹⁴ ONS, Census 2011

¹⁵ www.hertslis.org

¹⁶ ONS, Census 2011

¹⁷ ONS, Census 2011

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

<ul style="list-style-type: none"> • Previous EqIAs for Waste Local Plan; • Site Monitoring; • Annual Minerals Survey; • Neighbourhood Plans. 	<p>Highlights any known disadvantaged groups;</p> <p>Existing communities surrounding existing mineral extraction sites;</p> <p>Technical and commercially sensitive data relating to the rate of extraction and remaining reserves;</p> <p>Any neighbourhood requirements being planned for.</p>
---	---

STEP 4: Impact Assessment – Service Users, communities and partners (where relevant)

Protected characteristic	Potential for differential or negative impact	What reasonable mitigations can you propose?
Age	<p>Operational The proximity of sites to care homes and schools may give rise to negative impacts, with older people or families with young children potentially more susceptible to site operations. Potential impacts are likely to be noise, dust, smell and traffic associated with the winning of aggregates and the movement of materials</p> <p>Consultations The older generation may be disadvantaged if the reliance is upon electronic communication. Those relying on buses may be disadvantaged if stakeholder events are not held in locations accessible by bus. Young people may not be engaged in the planning process and therefore disadvantaged.</p>	<p>Conditions can be imposed on mineral planning permissions to regulate the operations. Compliance will be maintained by the monitoring of mineral sites. The Mineral Planning Authority will continue to provide relevant information electronically and in hard copy. Documents will be on deposit at libraries and district offices for those wishing to view a paper copy near to their home. The council will accept responses to consultations via email, Objective (online consultation portal), letter and consultation response form. Stakeholder events should be centrally located and held on a bus route where possible. The continued use of electronic communication and Objective may involve the younger generation.</p>
Disability Including Learning Disability	<p>Operational Mineral operations creating dust could impact negatively on those with breathing difficulties. Those with autism or related illnesses could be</p>	<p>Conditions can be imposed on mineral planning permissions to regulate the operations. Stakeholder events should be held in venues that are accessible and with suitable</p>

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Protected characteristic	Potential for differential or negative impact	What reasonable mitigations can you propose?
	<p>negatively affected by noise created from mineral operations and increased traffic movements resulting in noise, smell and reduced air quality.</p> <p>Consultation Stakeholder events not in disabled accessible locations could disadvantage this group. Consultation literature not in Braille or large text could disadvantage the visually-impaired.</p>	<p>facilities for disabled persons. Consultation literature should be issued with text indicating that alternative formats (Braille or large text) can be issued if required. Officers should also ensure that documents are written in plain English.</p>
Race	<p>People who do not understand English may have difficulty in engaging in stakeholder and consultation events.</p>	<p>Consultation literature should be issued with text indicating that it can be issued in alternative languages if required. Officers should also ensure that documents are written in plain English. The use of an interpreter may be required in exceptional cases, however the language line is available as part of the customer service call centre where a 3-way conversation can be had with a translator.</p>
Gender reassignment	<p>It is not anticipated that the proposals will affect people disproportionately because of gender reassignment.</p>	<p>Officers will ensure compliance with equalities legislation throughout consultations and the plan making process. Officers will be available to answer questions and provide guidance relating to the planning process at all times.</p>
Pregnancy and maternity	<p>Pregnant women or those on maternity/paternity leave who live in close proximity to a mineral extraction site may be more susceptible to health related impacts associated with the site operations such as noise, dust, smell and increased traffic movements resulting in noise and reduced air quality</p>	<p>Conditions can be imposed on mineral planning permissions to regulate the operations. Compliance will be maintained by the monitoring of mineral sites. The Mineral Planning Authority will continue to provide relevant information and accept responses to consultations via email, objective, letter and</p>

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Protected characteristic	Potential for differential or negative impact	What reasonable mitigations can you propose?
		consultation response form.
Religion or belief	Stakeholder events and consultation periods over religious festivals could disadvantage some people.	The Mineral Planning Authority will continue to consult in relation to the statutory regulations and in accordance with the council's adopted Statement of Community Involvement which provides 6 weeks for responses. In addition, the council will engage with other faith forums in Hertfordshire where these respective groups have made themselves known to the council. The council is prepared to extend the deadline for responses at Christmas and Easter and if notified of a clash with another religious festival. It would not otherwise be aware of festival periods for other religions or beliefs. Stakeholder events should not be held at the same time of day/week.
Sex	<p>Operational 51% of Hertfordshire's population is female and 49% is male. Those who have caring responsibilities may be at home or with others during the day in close proximity to a mineral extraction site and therefore maybe more susceptible to mineral site operations. Although it is not anticipated that the proposals will affect people disproportionately because of their sex.</p> <p>Consultation Stakeholder events held at particular times of the day may disadvantage both females and males.</p>	<p>Conditions can be imposed on mineral planning permissions to regulate the operations. Compliance will be maintained by the monitoring of mineral sites.</p> <p>Stakeholder events should not be held at the same time of day/week to ensure there is flexibility for everyone to attend.</p>
Sexual orientation	It is not anticipated that the proposals will affect people disproportionately because of	Officers will ensure compliance with equalities legislation throughout consultations and the

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Protected characteristic	Potential for differential or negative impact	What reasonable mitigations can you propose?
	their sexual orientation.	plan making process. Officers will be available to answer questions and provide guidance relating to the planning process at all times.
Marriage & civil partnership	It is not anticipated that the proposals will affect people disproportionately because of marriage or civil partnership.	Officers will ensure compliance with equalities legislation throughout consultations and the plan making process. Officers will be available to answer questions and provide guidance relating to the planning process at all times.
Carers (by association with any of the above)	Stakeholder events held at particular times of the day may disadvantage carers.	Stakeholder events should not be held at the same time of day/week to ensure there is flexibility for everyone to attend.
Opportunity to advance equality of opportunity and/or foster good relations (Please refer to the guidance for more information on the public sector duties)		

STEP 5: Gaps identified

<p>Gaps identified</p> <p>Do you need to collect more data/information or carry out consultation? (A 'How to engage' consultation guide is on Compass). How will you make sure your consultation is accessible to those affected?</p>	<p>The Hertfordshire Picture, Quality of Life report and Community Profiles will be essential in providing data relating to the communities of Hertfordshire. Data for housing profiles in relation to mineral extraction sites may be required. The Minerals Planning Authority needs to be aware of the district growth proposals which may cause disadvantages to new households near to mineral extraction areas.</p> <p>The Mineral Planning Authority will continue to consult in relation to the statutory regulations and in accordance with the council's adopted Statement of Community Involvement. Consultation documents will therefore be available in paper copy, CD, via email, the council's website and the Objective online consultation portal. Consultation documents will be available at all libraries, district offices, parish and town councils and to known community groups and interested individuals. The council will accept responses to consultations via email, Objective, letter and consultation response form.</p>
--	---

STEP 6: Other impacts

Consider if your proposal (MLP) has the potential (positive and negative) to impact on areas such as health and wellbeing, crime and disorder and community relations. There is more information in the guidance.

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

- Health and Safety on non-operational sites;
- Vandalism and stealing of mineral extraction equipment;
- Liaison groups;
- Cumulative impacts in an area linked with other traffic generating uses;
- Supply of minerals to assist local development proposals;
- Minerals to trade with other authorities for those non-indigenous to Herts;
- Development Management can impose conditions on applications to regularise issues such as noise, dust & traffic.

STEP 7: Conclusion of your analysis

Select one conclusion of your analysis	Give details
<input type="checkbox"/> No equality impacts identified – No change required to proposal.	
<input type="checkbox"/> Minimal equality impacts identified – Adverse impacts have been identified, but have been objectively justified (provided you do not unlawfully discriminate). – Ensure decision makers consider the cumulative effect of how a number of decisions impact on equality.	
<input checked="" type="checkbox"/> Potential equality impacts identified – Take 'mitigating action' to remove barriers or better advance equality. – Complete the action plan in the next section.	Potential equality impacts may arise during stakeholder events and consultations. In addition mineral extraction operations need to consider equality issues through policies and separately through the development management process. Stakeholder events and consultation literature needs to be in plain English
<input type="checkbox"/> Major equality impacts identified – Stop and remove the policy – The adverse effects are not justified, cannot be mitigated or show unlawful discrimination. – Ensure decision makers understand the equality impact.	

STEP 8: Action plan

Issue or opportunity identified relating to:	Action proposed	Officer Responsible and target date
– Mitigation measures – Further research – Consultation proposal – Monitor and review		
Restricted access to consultation documents	Produce consultation documents in a variety of formats – hard copy, CD, on the Objective online consultation portal, council's website; and	TCL, GN, JG, MW & DH By 2018

Agenda Pack 334 of 454

Equality Impact Assessment (EqIA) Hertfordshire Minerals Local Plan Review

Issue or opportunity identified relating to: – Mitigation measures – Further research – Consultation proposal – Monitor and review	Action proposed	Officer Responsible and target date
	electronically for small documents only. Write in plain English. Offer to produce information in other languages to English, and for the partially sighted. Ensure this is written into the communications strategy. Consider extending date for receiving consultation responses near to Christmas and Easter.	
Restricted access to stakeholder events	Hold stakeholder events in a disabled accessible building, centrally located and near a bus route and not always held at the same time on the same day if there is more than one.	TCL, GN, JG, MW & DH By 2018
Policy writing	Consider all protected characteristics and potential impacts when writing minerals policies.	TCL, GN, JG, MW & DH By 2018
Potential environmental impacts	Make it clear in the Minerals Local Plan that conditions can be imposed on planning permissions to minimise impacts of mineral extraction and its associated transportation on any protected characteristics (for example covering issues such as dust, noise, traffic & working/operating hours)	TCL, GN, JG, MW & DH by 2018 in addition to Development Management Team Members 2018 onwards
Review and monitoring	Review how the protected characteristics are being treated equally at each work phase and after each consultation.	TCL, GN, JG, MW & DH By 2018

This EqIA has been reviewed and signed off by:

Head of Service or Business Manager:

Date:

Equality Action Group Chair:

Date:

Equality Impact Assessment (EqIA) Addendum for the Hertfordshire Minerals Local Plan Review – Call for Sites

Guidance is available on [Compass](#). Completion of an EqIA should be proportional and relevant to the anticipated impact of the project on equalities. The form can be tailored to your project and should be completed before decisions are made. Key EqIAs should be reviewed by the Business Manager or Service Head, signed off by your department's Equality Action Group (EAG) and sent to the Equality and Diversity team to publish on HertsDirect. For support and advice please contact equalities@hertfordshire.gov.uk.

Overview: Responsibility and Involvement

Title of proposal/ project/strategy/ procurement/policy	Review of Minerals Local Plan – Call for Sites Stage	Head of Service or Business Manager	J Tiley
Names of those involved in completing the EqIA:	T Carter-Lyons (TCL) G Nicholson (GN) J Greaves (JG) D Hodbod (DH)	Lead officer contact details:	T Carter-Lyons 01992 556254 G Nicholson 01992 556732
Date completed:	November 2015	Review date:	(Consultation date)

The Minerals Planning Authority has produced this addendum to the EqIA for the Minerals Local Plan dated January 2015 to address the call for sites consultation.

Background to the Minerals Local Plan EqIA

A full Equality Impact Assessment (EqIA) was written for the review of the Minerals Local Plan in January 2015 in preparation for the early stages of plan preparation and the first formal stage of consultation. The first consultation was undertaken from 3 August to 16 October 2015 and covered a variety of topic areas which would inform the Minerals Local Plan review.

The EqIA for the Minerals Local Plan concluded that potential equality impacts may arise during stakeholder events and consultations and proposed a range of reasonable mitigations to minimise the potential impacts.

Purpose of the Call for Sites Consultation

The purpose of the call for sites consultation is to invite landowners, operators or agents to put forward potential sites for mineral extraction which can be assessed against the site selection methodology to identify sites for inclusion within the Minerals Local Plan review.

The call for sites consultation will be targeted to potential site promoters. However, in order to ensure that the actions identified by the main EqIA are taken into account and to ensure that the protected characteristics of those who may not already be engaging with the county council for the Minerals Local Plan are fully aware of the call for sites, the following approach is proposed:

- Inform the district and borough councils of the call for sites and request that the letter is placed at the deposit points

Equality Impact Assessment (EqIA) Addendum for the Hertfordshire Minerals Local Plan Review – Call for Sites

- Publish a press release
- Make the documents and information for the call for sites available online
- Notify known landowners, operators and agents of mineral bearing land

It is, therefore, not anticipated that people with protected characteristics will be affected disproportionately by the undertaking of a call for sites.

The Minerals Planning Authority considers that a separate EqIA is not required for the call for sites consultation, as this stage does not allocate new sites or introduce new policies in addition to those contained within the adopted Minerals Local Plan.

It is intended that this EqIA will be reviewed at each work phase and at each consultation stage.

This EqIA has been reviewed and signed off by:

Head of Service or Business Manager:

Date: 15.1.2016

Equality Action Group Chair:

Date:

HERTFORDSHIRE COUNTY COUNCIL**ENVIRONMENT, PLANNING & TRANSPORT
CABINET PANEL****THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM****MINERALS AND WASTE LOCAL PLAN – AUTHORITY'S MONITORING
REPORT***Report of the Chief Executive and Director of Environment*

Author: Emma Chapman, Apprentice Planner
(Tel: 01992 556275)

Executive Member: Derrick Ashley (Environment, Planning & Transport)

1. Purpose of report

- 1.1 To consider the Authority's Monitoring Report (AMR) for the period 1 April 2016 until 31 March 2017. The key findings of the AMR and issues for Hertfordshire County Council are set out in Section 5 of this report.

2. Summary

- 2.1 The AMR is a reporting mechanism that assesses whether the policies within the County Council's minerals and waste Local Plans are being implemented effectively. Fifteen out of the 22 policies listed in the Waste Local Plan and 16 out of the 19 Policies listed in the Minerals Local Plan, were used to determine County Matter (Minerals and Waste) applications throughout the period of which this year's AMR covers. Tables 3 and 4 in this report provide further details as to why the three Minerals Local Plan policies and seven of the Waste Local Plan policies have not been used to determine Minerals or Waste applications in this year's AMR period (1 April 2016 to 31 March 2017).
- 2.2 The 17 targets and 18 indicators for the Waste Core Strategy and Development Management Policies Document 2011-2026, are included and monitored within the AMR. Each of them has been individually assessed and is supported by text, providing details on how and if the target was met.
- 2.3 From 1 April 2016 to 31 March 2017, 4 mineral applications and 10 waste applications were determined. Details of all 14 County matter (minerals and waste) applications have been included in the AMR, summarised within appendix tables 3 and 4, to provide site name, site operator/applicants name, description of the application, policies used to assess the application, decision and date and any additional capacity that has been provided.

- 2.4 The AMR also contains other monitoring data, which is outlined in paragraphs 4.3 and 4.4 of this report.
- 2.5 National planning legislation requires all local planning authorities in England to produce an AMR at least on an annual basis. This AMR has been produced in accordance with National Policy and the requirements under Regulation 34 of The Town and Country Planning (Local Planning) (England) (Regulations) 2012. The report is presented here for the Cabinet Panel's consideration as an information item, prior to the AMR being placed on the county council's website.

3. Recommendation

- 3.1 The Cabinet Panel is invited to:
- i) comment on the AMR as outlined in the report and attached at Appendix 1 of this report, and;
 - ii) acknowledge that it will be placed on the County Council's website

4. Background

- 4.1 The County Council has been producing monitoring reports for the minerals and waste local plans since 2005. The introduction of the 2012 Town and Country Planning Regulations changed the way in which Annual Monitoring Reports are produced. These are now referred to as Authority's Monitoring Reports and will include the monitoring information outlined in Section 5 of this report.
- 4.2 Monitoring helps to assess whether minerals and waste plan-making is on track, and to highlight any potential gaps in its evidence base.
- 4.3 Regulation 34 of the 2012 Town and Country Planning Regulations stipulate a number of monitoring indicators that each AMR must contain. For minerals and waste these are:
- The title of the local plans or supplementary planning documents specified in the Minerals and Waste Development Scheme;
 - The timetable for plan production as specified in the Minerals and Waste Development Scheme;
 - The stage the document(s) have reached in their preparation and any reasons for slippage in the prescribed timetable;
 - A statement and date of any documents that have been adopted;
 - Identify any policies that are not being implemented and include a statement as to why they have not been implemented the policy;
 - The steps that the Minerals and Waste Planning Authority intend to take to secure that the policy is implemented; and

- Details of any action taken where Minerals and Waste Planning Authority has co-operated with another Local Planning Authority, county council, or a body or person prescribed under section 33A of the Localism Act, 2011.

4.4 Each AMR includes the above information together with:

- The capacity of new waste management facilities by type
- The volume of local authority collected waste arisings (formerly municipal solid waste), and how managed by type, and the percentage each management type represents of the waste managed

4.5 AMRs produced by the county council prior to 2013 included monitoring information on the production of primary land-won and secondary/ recycled aggregates for each calendar year. This information is now contained in the Local Aggregates Assessment as a standalone document.

4.6 It is important to note that this year's AMR and subsequent ones to follow will continue to monitor Hertfordshire County Council's (as the Waste Planning Authority) compliance with the relevant European Directives set out within the AMR, until Britain exits the European Union (which is scheduled to take place by the end of March 2019).

4.7 The influence that the EU has on the planning system is through Directives which are transposed into legislation within the UK nations. At this moment in time it is too early to know what implications leaving the European Union will have on the planning system in Britain, in terms of its work and the legal and economic context under which it operates.

4.8 This AMR also includes the following appendices:-

- Appendix 1: Current Minerals and Waste Local Plan Policies
Contains a list of policies from the documents that form the Waste Local Plan and a list of 'saved' policies from the adopted Minerals Local Plan (all policies from the Hertfordshire Minerals Local Plan adopted March 2007 were saved under paragraph 1(3) Schedule 8 of the Planning and Compulsory Purchase Act 2004 in March 2010 until the replacement of new policies);
- Appendix 2: List of Safeguarded Sites
Lists minerals and waste sites (per district) within the county that are safeguarded as of March 2017;
- Appendix 3: Mineral Applications Determined from 1 April 2016-31 March 2017
Lists all of the mineral planning applications determined within this AMR period, the policies used to determine them and the outcome of each application.

- Appendix 4: Waste Applications Determined from 1 April 2016-31 March 2017
Lists all of the waste planning applications determined within this AMR period, the policies used to determine them and the outcome of each application.
- Appendix 5: Minerals and Waste Development Scheme Timetable
Contains the most recent timetable (adopted November 2016) for the production and monitoring of the minerals and waste local plans. The timetable runs from 2016-2020.

5. Summary of key points from the Authority's Monitoring Report and issues for Hertfordshire County Council

- 5.1 The following data has been extracted from the AMR, which details the key points that have been monitored during the period of time that this AMR covers.
- 5.2 In November 2016, the Waste Disposal Authority at Hertfordshire County Council revised its Local Authority Collected Waste Spatial Strategy. The document states that the Waste Disposal Authority considers that there is adequate capacity provided by existing privately owned facilities and facilities with planning permission to treat projected organic waste levels up to 2030/31¹.
- 5.3 As a result of the findings set out in the revised Waste Spatial Strategy, Hertfordshire County Council, as the Waste Planning Authority, will no longer be reporting on the capacity provided to treat Local Authority Collected (LAC) Organic Waste for the identified shortfalls in Table 5 of the Waste Core Strategy.
- 5.4 Details of capacity provided since 2011 for the identified shortfalls in Waste Core Strategy Tables 6, 8 & 9 can be seen in Chapter five of the AMR.
- 5.5 During the period 1 April 2016 to 31 March 2017, the county council determined 14 'county matter' (minerals and waste) planning applications.
- 5.6 As seen in Table 1 below, eight out of the determined ten waste planning applications were approved. Although the determined waste applications are county matter, none of the eight approved applications provided any additional capacity for the shortfalls identified in Waste Core Strategy Tables 6, 8 & 9.
- 5.7 None of the determined waste applications proposed a new waste management facility that would provide additional capacity nor did any of the applications propose to add capacity to an existing facility. For this reason there has been no additional capacity provided during the period of this year's AMR (1 April 2016 – 31 March 2017).

¹ Wording from Waste Disposal Authorities' Local Authority Collected Waste Spatial Strategy October 2016

- 5.9 Details of the determined Mineral and Waste applications are set out in appendix 3 and 4 of the AMR. A breakdown of these applications is listed below, in Table 1:

Table 1: Number of Minerals and Waste Applications 1 April 2016 to 31 March 2017

	Type	Number of Applications
Number of Applications Approved	Minerals	2
	Waste	8
Number of Applications Refused	Minerals	2
	Waste	2
Total		14

Local Authority Collected Waste Arisings in Hertfordshire 2016/2017

- 5.10 Local authority collected waste (formerly known as municipal solid waste) is collected by the districts and boroughs. The table below lists local authority collected waste arisings and treatment for the period of this year's AMR. These figures have been obtained from the county council's Waste Management Unit in June 2017 and cover the period for which this AMR covers.

Table 2: Management/disposal of local authority collected waste 2016/2017

Treatment	Tonnes	Percentage
Recycled	153,393.13	29.0
Composted	121,756.77	23.0
Energy Recovery	193,114.82	36.6
Landfilled	59,992.13	11.4
Total	528,256.85	100.0

- 5.11 In 2016/2017, 52% of Local Authority Collected Waste (LAC) was re-used, recycled or composted. To put this in some context, the National target for the UK is to re-use, recycle or compost 50% of household waste by 2020. A further 36.6% was delivered for treatment to energy recovery facilities. This is an increase of 5.2% compared to last year's figures for 2015/2016. This gives a total of 88.6% of LAC that was diverted from landfill and represents an increase of 6.6% on the previous equivalent combined figure from 2015/2016.

Implementation of Minerals and Waste Policies

- 5.12 Regulation 34 of the 2012 Town and Country Planning Regulations requires each Local Planning Authority to identify policies in the local plan that are not being implemented, the reasons why and any steps that are needed, in order to secure their future implementation.

5.13 The policies that are reviewed in this AMR are those that are within the adopted Minerals and Waste Local Plans. These are currently used to determine minerals and waste planning applications and form part of the statutory Development Plan.

Minerals Local Plan Policies

5.14 The adopted Minerals Local Plan contains 19 policies. During this year’s AMR period, three policies including, Minerals Policy 6: Other Non-Energy Minerals, Minerals Policy 10: Railheads and Wharves and Minerals Policy 19: Enforcement of Planning Control were not used to determine Minerals Planning applications. Details of these three policies and the reasons as to why they were not used to determine Minerals applications during this year’s AMR period, are listed in table 3 below:

Table 3: Unused Minerals Local Plan Policies from 1 April 2016 to 31 March 2017

Saved Minerals Local Plan Policy	Reason	Steps Needed to ensure implementation
Minerals Policy 6: Other Non-Energy Minerals	No relevant applications determined that would require the use of this policy	N/A
Minerals Policy 10: Railheads and Wharves	No relevant applications determined that would require the use of this policy	N/A
Mineral Policy 19: Enforcement of Planning Control	This policy is not relevant to decision making, however it reinforces Hertfordshire County Council’s enforcement duties and therefore is applied elsewhere	N/A

5.15 It is considered that there are no further steps necessary to ensure the future implementation of any of the unused Minerals Policies.

Waste Local Plan Policies

5.16 The Waste Site Allocations document (adopted in July 2014) contains two policies. This is the third time that policies contained within the Waste Site Allocations document have been monitored in the AMR since its adoption in 2014. Both policies have been used by the county council’s development management team during the period of this AMR.

5.17 The adopted Waste Core Strategy & Development Management Policies document contains 20 policies. During this year’s AMR period, seven out of the 20 policies in the Waste Core Strategy & Development Management Policies document were not used by the county council’s development

management team to assess development proposals. The reasons for which are outlined below in Table 4:

Table 4: Unused Waste Core Strategy Policies from 1 April 2016 to 31 March 2017

Waste Core Strategy Policy	Reason	Steps Needed to ensure implementation
Policy 3: Energy & Heat Recovery	No relevant applications determined that would require the use of this policy	N/A
Policy 5: Safeguarding of Sites	No relevant applications determined that would require the use of this policy	N/A
Policy 8: Waste Parks/Combined Facilities	No relevant applications determined that would require the use of this policy	N/A
Policy 10: Climate Change	No relevant applications determined that would require the use of this policy	N/A
Policy 14: Buffer Zones	No relevant applications determined that would require the use of this policy	N/A
Policy 17: Protection of Sites of International and National Importance	No relevant applications determined that would require the use of this policy	N/A
Policy 20: Monitoring and Enforcement	No relevant applications determined that would require the use of this policy	N/A

5.18 The Waste Site Allocations Document states that: ‘the plan will be reviewed in full every five years and a partial review may be undertaken sooner than that if required’. The county council is therefore in the very early stages of the review. The first key milestones for reviewing the Waste Local Plan will be carried out over the next two years (2017- 2019) and will include initial evidence gathering, an initial consultation and a call for sites (if required). The key milestones for the Waste Local Plan review can be seen in the adopted Minerals and Waste Development Scheme (adopted November 2016) in Appendix 5 of the AMR. Progress of the Waste Local Plan will continue to be monitored in subsequent versions of the AMR.

Progress of the Minerals and Waste Development Framework

5.19 The Minerals and Waste Development scheme covers the period 2016-2020. It reflects the process of the Minerals Local Plan review, in particular the need to

undertake additional technical work for the Minerals Local Plan Draft Plan Consultation. It also sets out the proposed timeline to review the Waste Local Plan, which includes the period up to its submission in November 2020.

- 5.20 The EU Waste Framework Directive is made up of five Articles with which the county council, as the Waste Planning Authority, must comply. Section 6 of the AMR details how the county council, as Waste Planning Authority has complied with Articles 4, 13, 16, 28 and 34 of the EU Waste Framework Directive.
- 5.21 The county council has a responsibility to fulfil its 'Duty to Co-operate' obligation under Section 33A of the Planning and Compulsory Purchase Act 2004. Section 7 of the AMR details how the county council has complied with the 'Duty to Co-operate' obligation over the period 1 April 2016 to 31 March 2017, through engaging constructively, actively and on an ongoing basis with the prescribed bodies mentioned in the Localism Act 2011 and the Town and Country Planning (Local Planning) (England) Regulations 2012.

6 Next steps

- 6.1 This AMR covers the period 1 April 2016 to 31 March 2017 on county matter applications determined and the relevant minerals and waste local plans policies that have been used to determine them. The conclusion of this year's AMR determines that Hertfordshire's Mineral Planning Authority's documents, including the Minerals Local Plan and the Hertfordshire Waste Development Framework still remain a sound basis upon which to determine applications.
- 6.2 At this stage, no further action is needed to ensure the future implementation of any of the policies contained within the Minerals Local Plan or the Waste Local Plan documents due to both plans currently being under review. All policies will be considered during the Local Plan reviews to determine whether they have proved useful throughout Plan periods and whether they meet current national policy requirements. Evidence where policies no longer prove useful may be a trigger for their removal from the Minerals Local Plan or the Waste Local Plan documents, or for their rationalisation.
- 6.3 As it is stated in paragraph 3.29 of the AMR, the county council, as the Waste Planning Authority is in the process of procuring new software for the recording of planning and enforcement information and is investigating the use of an online portal which may be used to record complaints separately. It is anticipated that the targets and indicators within Chapter 3 of the AMR will need to be reviewed in light of any new software procured.
- 6.4 Additionally, the targets and indicators will need to be reviewed to take into account the conclusions of the Waste Disposal Authority's Local Authority Collected Waste Spatial Strategy 2016 as outlined in paragraphs 5.7 to 5.9 of the AMR.
- 6.5 This AMR will be published as an information item on the County Council's website.

7 Financial implications

- 7.1 The production of the AMR is an annual event and is accounted for within existing budgets.

8 Equality implications

- 8.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equality implications of the decision that they are making.
- 8.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.
- 8.3 The Equality Act 2010 requires the county council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.
- 8.4 It is not anticipated that people with protected characteristics will be affected disproportionately by the information set out in this report.

Background papers:

Guidance for local planning authorities on implementing planning requirements of the European Union Waste Framework Directive (2008/98/EC), DCLG

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37011/Guidance_for_local_authorities_on_implementing_planning_requirements_of_the_European_Union_Waste_Framework_Directive_2008-98-EC.pdf

Adopted Waste Core Strategy & Development Management Policies document, November 2012

<http://www.hertsdirect.org/docs/pdf/w/wcsadopt>

The National Planning Policy Framework (2012), DCLG

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf>

The Planning and Compulsory Purchase Act 2004

http://www.legislation.gov.uk/ukpga/2004/5/pdfs/ukpga_20040005_en.pdf

The Localism Act 2011

http://www.legislation.gov.uk/ukpga/2011/20/pdfs/ukpga_20110020_en.pdf

Town and Country Planning (Local Planning) (England) Regulations 2012

http://www.legislation.gov.uk/uksi/2012/767/pdfs/uksi_20120767_en.pdf

Hertfordshire Minerals & Waste Development Framework



Authority's Monitoring Report

1 April 2016 – 31 March 2017

Table of contents

Executive Summary	4
1.0 Introduction	6
Purpose of the Report	6
Documents produced by Hertfordshire County Council	9
Sustainability Appraisal and Habitats Regulation Assessment.....	10
2.0 Current Minerals and Waste Policies	111
The Current Development Plan System	111
Waste Core Strategy & Development Management Policies Document	111
Waste Site Allocations Document	111
Minerals Local Plan	121
Unimplemented Minerals and Waste Policies	121
Unimplemented Minerals Local Plan Policies.....	122
Unimplemented Waste Local Plan Policies	133
3.0 Monitoring of Waste Core Strategy Targets and Indicators	155
4.0 Minerals and Waste Development Scheme	23
Overview	23
Local Plan Production Timetables.....	244
5.0 Waste Monitoring	277
Overview	277
Waste Core Strategy Future Capacity Requirements	277
Additional LAC Residual Waste Treatment Capacity (Waste Core Strategy Table 6).....	29
Additional C&I Composting and Recycling Capacity (Waste Core Strategy Table 8).....	30
Additional C&I Remaining Residual Available for Treatment Capacity (Waste Core Strategy Table 9).....	31
Local Authority Collected Waste Arisings and Treatment 2015/2016..	32
6.0 Conformity with the EU Waste Framework Directive	33
Relevant Articles from the Directive	344
Compliance with Article 4: Waste Hierarchy.....	34
The Hertfordshire Waste Hierarchy	355
Compliance with Article 13: Protection of Human Health and the Environment	377
Compliance with Article 16: Principles of Self-Sufficiency and Proximity	377
Compliance with Article 28: Waste Management Plans	388
Compliance with Article 34: Inspections	41
7.0 Duty to Co-Operate	433
The County Council's Fulfilment of the Duty to Co-Operate.....	433
Appendix 1: Current Minerals and Waste Local Plan Policies	455
Hertfordshire Waste Local Plan Policies (2011-2026).....	455
Hertfordshire Minerals Local Plan 2002-2016 (Adopted March 2007)	466
Appendix 2: List of Safeguarded Waste Sites (Per District) as of March 2017	477

Appendix 3: Mineral Applications Determined from 1 April 2016 to 31 March 2017 (in date order).....	588
Appendix 4: Waste Applications Determined from 1 April 2016 to 31 March 2017 (in date order).....	61
Appendix 5: Minerals and Waste Development Scheme Timetable.....	66

Executive Summary

This is Hertfordshire County Council's Authority's Monitoring Report (hereafter referred to as AMR), which covers the period 1 April 2016 to 31 March 2017 and follows on from the previous AMR which covered the period from 1 April 2015 to 31 March 2016. It has been written in accordance with Section 35 of the Planning and Compulsory Purchase Act 2004 (as amended by the Localism Act, 2011 and the Town and Country Planning (Local Planning) (England) Regulations 2012).

Since the publication of the last AMR, the Minerals Local Plan review has continued and the review of the adopted Waste Local Plan has commenced. The first key milestones for reviewing the Waste Local Plan will be over the next two years (2017- 2019) as set out in the Minerals and Waste Development Scheme (Appendix 5 of this document). The first stages of the review will include initial evidence gathering, an initial consultation and a call for sites (if required). The progress of the Waste Local Plan review will be monitored in subsequent AMR's.

In November 2016, the Waste Disposal Authority at Hertfordshire County Council revised its Local Authority Collected Waste Spatial Strategy.

The revised Local Authority Collected Waste Spatial Strategy states that the Waste Disposal Authority considers that there is adequate capacity provided by existing privately owned facilities and facilities with planning permission to treat projected organic waste levels up to 2030/31¹.

As a result of the findings set out in the revised Waste Spatial Strategy, Hertfordshire County Council, as the Waste Planning Authority, will no longer be reporting on the capacity provided to treat Local Authority Collected (LAC) Organic Waste for the identified shortfalls in Waste Core Strategy Table 5.

The conclusions of the revised Local Authority Collected Waste Spatial Strategy will be taken into consideration in the review of Hertfordshire County Council's adopted Waste Local Plan.

Details of capacity provided since 2011 for the identified shortfalls in Waste Core Strategy Tables 6, 8 &9 can be seen in Chapter five of this report.

The county council determined 14 'county matter' (minerals and waste) planning applications during the period 1 April 2016 to 31 March 2017. A summary of these applications is in the table below:

¹ Wording from Hertfordshire County Council's Local Authority Collected Waste Spatial Strategy October 2016

Number of determined minerals and waste applications (1 April 2015 to 31 March 2016)		
	Type	Number of Applications
Number of Applications Approved	Minerals	2
	Waste	8
Number of Applications Refused	Minerals	2
	Waste	2
Total		14

During the period that this AMR covers, the county council approved eight waste planning applications and refused two. Although all the determined applications are county matter, none of the eight approved waste applications contributed any additional capacity to the shortfalls identified in Waste Core Strategy Tables 6, 8 & 9 (which are outlined in Chapter 5 of this report) due to the nature of the applications.

The approved waste planning applications consisted of the following:

- Four Variation of Conditions applications
- One application for the demolition of two existing waste transfer buildings and the erection of two replacement and one new waste transfer buildings
- One application for the consolidation of existing waste recycling operations and external ancillary works
- One application for the erection of two glass reinforced plastic kiosks (to house electrical control equipment)
- One application for the erection of a water tank and pump house

Details of the fourteen county matter applications can be found in Appendix 3 and 4 of this report.

1.0 Introduction

Purpose of the Report

- 1.1 The Authority's Monitoring Report (AMR) is a requirement under the Planning and Compulsory Purchase Act 2004 (hereafter referred to as 'The Act'), as amended by the Town & Country Planning (Local Planning) (England) Regulations 2012. The AMR is a means by which the county council shows the milestones that have been met within the Minerals and Waste Development Scheme (MWDS). If these targets or milestones have not been met, it provides an opportunity to explain why, and to put measures in place to progress. This AMR covers the time period from 1 April 2016 to 31 March 2017.

Overview

- 1.2 The introduction of the Localism Act 2011 and the amended Town and Country Planning Regulations in 2012 changed a number of requirements that were originally laid down in The Act. The Act originally introduced changes in the way in which planning policy documents are produced and also included a requirement to produce a number of other documents that included Minerals and Waste Development Schemes, Statements of Community Involvement and Annual Monitoring Reports.²
- 1.3 Section 34 of the Town and Country Planning (Local Planning) (England) Regulations 2012 stipulates the monitoring information that each local planning authority should now contain in their AMR. Since the withdrawal of guidance on local plan monitoring by the Department for Communities and Local Government in March 2011, it is no longer a statutory requirement for minerals and waste planning authorities to include the following monitoring indicators in their Authority's Monitoring Reports:
- Production of primary land-won aggregates (the tonnage of sand and gravel sales in the year).
 - Production of secondary/recycled aggregates (the tonnage of secondary/recycled aggregate sales in the year).
 - Capacity of new waste management facilities by type.
 - Amount of municipal waste arisings, how managed by type, and the percentage each management type represents of the waste managed.
- 1.4 The government made it clear that it is a matter for local planning authorities to decide what each Authority's Monitoring Report should include, provided they are prepared in accordance with relevant legislation.

² Now known as 'Authority's Monitoring Reports' as amended by the Town & Country Planning (Local Planning) (England) Regulations 2012.

- 1.5 This report includes many of the previous monitoring indicators that were contained in past Annual Monitoring Reports, including some of the indicators mentioned in paragraph 1.3. These indicators provide a vital evidence base for the Minerals and Waste Local Plans, and will provide a mechanism for the review of future planning documents.
- 1.6 Within this Authority's Monitoring Report, the following issues will be considered:
- The statutory development plans
 - Are the milestones set out within the Hertfordshire MWDS being met? If not, why not?
 - Core indicators for waste
 - Monitoring of the revised set of targets and indicators for the Waste Core Strategy & Development Management Policies document. (The revised set of targets and indicators for the Waste Core Strategy & Development Management Policies document were presented and approved at Cabinet Panel in July 2015)
 - Compliance with the EU Waste Framework Directive.
 - Compliance with the Duty to Co-operate
 - Issues that need to be addressed before the next AMR
- 1.7 Monitoring information on the production of primary land-won and secondary/recycled aggregates for each calendar year is contained in the county council's Local Aggregate Assessment (LAA). This is a requirement laid down in the National Planning Policy Framework (NPPF), which was published in March 2012.
- 1.8 The targets and indicators identified within the Waste Core Strategy & Development Management Policies document (adopted in November 2012) are monitored within the AMR. These targets and indicators were revised in July 2015, as some of the information was not available to be able to report on certain targets.
- 1.9 This AMR therefore contains the revised targets and indicators (displayed in tables 3-19) and reports upon whether these revised targets and indicators are being met. The new targets and indicators replace tables 12 and 13 in the adopted Waste Core Strategy & Development Management Policies document.

Hertfordshire's Environment and Issues

- 1.10 Hertfordshire prides itself on a high quality environment, including an attractive countryside and thriving towns. Historic buildings and landscapes make a significant contribution to the special character of Hertfordshire and

contribute to a rich and varied cultural heritage, which benefits residents and visitors alike.

- 1.11 Over half of Hertfordshire is designated as Green Belt, and also includes the Chiltern Hills to the west and northwest, designated as an area of outstanding natural beauty (AONB).
- 1.12 Both the natural environment and the built environment are subject to pressures, particularly from development and congestion linked to increased levels of traffic. Parts of the east of the county fall within the London–Stansted–Peterborough Corridor Growth Area. Proposals for additional development around Luton and Dunstable could affect North Hertfordshire.
- 1.13 Implications for these characteristics and trends for waste management and mineral extraction include:
- pressures for housing and infrastructure;
 - consequential generation of construction and demolition waste;
 - increase in demand for aggregates;
 - increase in household waste-particularly with the rise in single households and overall increase in household numbers;
 - increases in commercial and industrial waste;
 - significant policy shifts towards greater waste minimisation, recovery and recycling of waste;
 - landfill space running out;
 - new government legislation and EU directives;
 - rapidly increasing costs of waste management; and
 - increasing public expectations
- 1.14 The county's road and rail networks are heavily influenced by long distance through-traffic, with large volumes of through movements on roads including the M1, A1 (M) and M25, and the East Coast, Midland and West Coast Main Line railway routes. Passengers and employees travelling to and from the two major airports that are just outside of the county's borders (Stansted and Luton) in addition to Heathrow provide an additional strain, in particular for Hertfordshire's radial road and rail network. In particular, east-west passenger transport links are less developed and are in need of improvement.
- 1.15 This complex transport network has significant implications for waste management and mineral extraction, and the feasibility of site selection. Both industries need access to well-connected transport networks, for both collection and disposal of waste, transportation of minerals to processing plants and then onto customers which is complicated by the various development pressures outlined above.

- 1.16 In order to reduce the reliance on road transport, the county council will encourage the transport of both minerals and waste by means other than road, in particular rail and water. Policies 9 and 10 in the adopted Waste Core Strategy & Development Management Policies document encourage proposals for new waste management facilities to transport waste by rail and water.

Documents produced by Hertfordshire County Council

Minerals and Waste Development Scheme (MWDS), November 2016

- 1.17 The Minerals and Waste Development Scheme (MWDS) was revised and adopted on 15 November 2016. It was amended to reflect the need for further technical work to inform the Minerals Local Plan Review, which will ensure a robust evidence base to support the Minerals Local Plan.

Statement of Community Involvement (SCI), January 2013

- 1.18 The County Council's Statement of Community Involvement (SCI) was revised and adopted in March 2013. The revised SCI took into account changes to national planning legislation with the publication of the National Planning Policy Framework in March 2012 and the coming into force of the Town and Country Planning (Local Planning) (England) Regulations in April 2012.

Minerals Local Plan Review (adopted in March 2007)

- 1.19 The Minerals Local Plan was adopted under the old development plan system in March 2007 and the policies were subsequently 'saved' in March 2010. The county council has now commenced a review of the Minerals Local Plan and a more detailed timetable is outlined in the MWDS, which can be found in appendix five of this document. The progress of the Minerals Local Plan review will continue to be monitored in subsequent AMR's.

Waste Core Strategy & Development Management Policies Document (adopted in November 2012)

- 1.20 The Waste Core Strategy and Development Management Policies document was adopted by the County Council in November 2012. This document covers a 15 year plan period from 2011-2026 for waste planning in Hertfordshire and contains policies that will implement the vision and strategic objectives that are contained within it, along with other development management policies that will be used to make decisions on waste planning applications.

Waste Site Allocations Document (adopted in July 2014)

- 1.21 The Waste Site Allocations document was adopted by the County Council in July 2014. This document covers the same 15 year plan period as the Waste Core Strategy & Development Management Policies document and should be read in conjunction with it. Together, these documents are known as the Waste Local Plan. The Waste Site Allocations document contains eight Allocated Sites and 60 Employment Land Areas of Search that are considered to be suitable locations within the county for future waste management development.
- 1.22 This year Hertfordshire County Council started the review of the adopted Waste Local Plan. It is stated in The Waste Site Allocations Document that: 'the plan will be reviewed in full every five years and a partial review may be undertaken sooner than that if required'. The county council is in the very early stages of the review. The first key milestones for reviewing the Waste Local Plan will be carried out over the next two years (2017- 2019) and will include initial evidence gathering, an initial consultation and a call for sites (if required). The key milestones for the Waste Local Plan review can be seen in table 21 of this document.

Employment Land Areas of Search Supplementary Planning Document

- 1.23 Adopted in November 2015, the purpose of the Supplementary Planning Document is to expand upon the general Waste Brief for all Employment Land Areas of Search (outlined in Appendix A of the Waste Site Allocations document) by providing further planning guidance at an individual employment land level.

Sustainability Appraisal and Habitats Regulation Assessment

- 1.24 Minerals and Waste Planning Documents are subjected to a Sustainability Appraisal, and a Habitats Regulation Assessment in line with the appropriate regulations.
- 1.25 A Sustainability Appraisal is the method for ensuring that the policies in the Minerals and Waste Local Plans reflect sustainable development principles. It assesses the potential social, environmental and economic effects of the documents. The Sustainability Appraisal for the Minerals and Waste Local Plans incorporates the requirements of the Strategic Environmental Assessment Directive (2001/42/EU). This requires local planning authorities to carry out formal strategic environmental assessments of the local development documents.
- 1.26 The Habitats Regulation Assessment is required by the European Habitats Directive (92/43/EEC). It tests whether a plan is likely to have a significant effect on any European (Natura 2000) sites. The adopted Minerals and Waste Local Plans have all had an appropriate assessment screening.
- 1.27 It is important to note at this stage, that this year's AMR and subsequent ones to follow will continue to monitor Hertfordshire County Council's (as the Waste Planning Authority) compliance with the relevant European Directives

set out within this document, until Britain exits the European Union (which is scheduled to take place by the end of March 2019).

- 1.28 The influence that the EU has on the planning system is through Directives which are transposed into legislation within the UK nations. At this moment in time it is too early to know what implications leaving the European Union will have on the planning system in Britain, in terms of its work and the legal and economic context under which it operates.

2.0 Current Minerals and Waste Policies

The Current Development Plan System

- 2.1 The publication of the National Planning Policy Framework (NPPF) in March 2012, replaced all previous Planning Policy Guidance (PPGs) and Planning Policy Statements (PPSs). PPS10: Planning for Sustainable Waste Management was replaced in October 2014 by the National Planning Policy for Waste (NPPW).
- 2.2 The introduction of the Localism Act, 2011 and the Town and Country Planning (Local Planning) (England) Regulations 2012, which came into force on 6 April 2012, have amended the previous development plan system introduced in 2004.
- 2.3 All adopted local plan policies (both in district local plans and in the County's Minerals Local Plan) were 'saved' for three years or until new development plan documents are produced. Some local plan policies have also been 'saved' beyond the three year period.

Waste Core Strategy & Development Management Policies Document

- 2.4 The Waste Core Strategy & Development Management Policies document was adopted in November 2012 and superseded the 'saved' policies that were contained in the previous Waste Local Plan. The policies contained in the Waste Core Strategy & Development Management Policies document are currently used determine waste related planning applications in the county.

Waste Site Allocations Document

- 2.5 The Waste Site Allocations document was adopted in July 2014 and contains eight Allocated Sites and 60 Employment Land Areas of Search that are considered suitable 'in principle' for waste management development. The Waste Site Allocations document also contains an additional criteria based policy (Policy WSA2) for applications for waste management development on the Allocated Sites and Employment Land Areas of Search. This document is part of the Waste Local plan and is used to determine Waste related planning applications in the County.

Minerals Local Plan

- 2.6 The Minerals Local Plan 2002-2016 was adopted in March 2007 and all the policies are 'saved' until they are replaced by new policies in a revised Minerals Local Plan. The county council has commenced a review of the current Minerals Local Plan.

Unimplemented Minerals and Waste Policies

- 2.7 Section 34 of the 2012 Town and Country Planning Regulations requires each local planning authority to identify development plan policies that are not being implemented, the reasons why and any steps that are needed, in order to secure their future implementation.
- 2.8 Reporting on the use of policies is an important part of monitoring. Monitoring their use in making decisions on planning applications ensures that any changes needed in policy are identified and an appropriate course of action is determined. It is also an important tool for assessing whether policies should continue to be saved.
- 2.9 The policies that are reviewed in this AMR are those that are within the Minerals Local Plan and the documents that form the Waste Local Plan.
- 2.10 A breakdown of the policies used in determining planning applications is included in this report.

Unimplemented Minerals Local Plan Policies

- 2.11 All 19 policies that are contained within the adopted Minerals Local Plan are 'saved' and form part of the Development Plan. During the period 1 April 2016 to 31 March 2017, policies 6, 10 and 19 were not used to determine minerals planning applications. The reasons are listed in Table 1 below.

Table 1: Unimplemented Minerals Local Plan Policies from 1 April 2016 to 31 March 2017

Saved Minerals Local Plan Policy	Reason	Steps needed to ensure implementation
Minerals Policy 6: Other Non-Energy Minerals	No relevant applications determined that would require the use of this policy	N/A
Minerals Policy 10: Railheads and Wharves	No relevant applications determined that would require the use of this policy	N/A
Mineral Policy 19: Enforcement of Planning Control	This policy is not relevant to decision making, however it reinforces Hertfordshire County Council's enforcement duties and therefore is applied elsewhere	N/A

2.12 As stated in paragraph 1.19, the adopted Minerals Local Plan is currently under review, which gives the County Council the opportunity to review the use of each of the existing policies and to assess whether or not they have proved useful. Evidence where policies no longer prove useful may be a trigger for their removal from the Minerals Local Plan, or for their rationalisation.

Unimplemented Waste Local Plan Policies

2.13 From 1 April 2016 to 31 March 2017, seven out of the 22 policies listed in the Waste Local Plan Documents were not used in the determination of waste planning applications. The reasons are listed in Table 2 below.

Table 2: Unimplemented Waste Local Plan Policies from 1 April 2016 to 31 March 2017

Waste Core Strategy Policy	Reason	Steps needed to ensure implementation
Policy 3: Energy & Heat Recovery	No relevant applications determined that would require the use of this policy	N/A
Policy 5: Safeguarding of Sites	No relevant applications determined that would require the use of this policy	N/A
Policy 8: Waste Parks/Combined Facilities	No relevant applications determined that would require the use of this policy	N/A
Policy 10: Climate Change	No relevant applications determined that would require the use of this policy	N/A
Policy 14: Buffer Zones	No relevant applications determined that would require the use of this policy	N/A
Policy 17: Protection of Sites of International and National Importance	No relevant applications determined that would require the use of this policy	N/A
Policy 20: Monitoring and Enforcement	No relevant applications determined that would require the use of this policy	N/A

- 2.14 As stated in paragraph 1.22, Hertfordshire County Council has commenced its review of the Waste Local Plan. Each of the existing Waste Local Plan Policies will be assessed to determine whether they have proved useful throughout the life of the existing Waste Local Plan and also if they meet current national policy requirements. The information from table 2 will go towards creating an evidence base that will be used to assess the effectiveness and relevance of policies in the production of the Waste Local Plan.
- 2.15 The use of the Minerals Local Plan and Waste Local Plan policies is also monitored in Appendices 3-4 of this AMR.

3.0 Monitoring of Waste Core Strategy Targets and Indicators

- 3.1 The targets and indicators are themselves kept under review and have been adapted or streamlined where necessary. A revised set of targets and indicators were presented to the county council's Environment Planning & Transport Cabinet Panel on 10 July 2015. The full report, including a comparison of the old and revised targets and indicators, can be viewed by clicking on the following web link:

<https://cmis.hertsdirect.org/hertfordshire/Calendarofcouncilmeetings/tabid/70/ctl/ViewMeetingPublic/mid/397/Meeting/442/Committee/52/Default.aspx>.

- 3.2 Following Cabinet Panel, the Waste Core Strategy & Development Management Policies document now contains 17 targets and 18 indicators. The revised targets and indicators still accompany the 22 policies that form the Waste Local Plan and will continue to monitor the effectiveness of each policy (21 policies in the Waste Core Strategy & Development Management Policies document and Policy WSA2 in the Waste Site Allocations document).
- 3.3 The policies within both these documents are designed to meet the seven strategic objectives for sustainable waste management in the county during the 15 year plan period (2011-2026). These are:

SO1. To promote the provision of well-designed and efficient facilities, that drive waste management practices up the waste hierarchy and are located to ensure no harm to human health and the environment, and which reduce waste volumes to be disposed in landfill;

SO2. To locate waste recycling, handling and reduction facilities as close as practicable to the origin of waste;

SO3. To facilitate the increased and efficient use of recycled waste materials in Hertfordshire (for example as aggregate);

SO4. To facilitate a shift away from road transport to water and rail transport as the principal means of transporting waste;

SO5. To prevent and minimise waste, but where waste cannot be avoided, maximise the recovery value (including energy and heat) from waste;

SO6. To work with all partners in the county to encourage integrated spatial planning, aligning with other local waste strategies and local authority objectives which take account of waste issues, recognising that waste management generates employment and is part of the infrastructure which supports businesses and communities; and

SO7. To work with all neighbouring waste authorities to manage the equivalent of the county's own waste arisings.

- 3.4 Tables 3 to 19 set out the 17 revised targets and are followed by a summary of performance against them.

Table 3: Waste Core Strategy Target 1

Target 1: A year on year reduction in the amount of waste sent to landfill over the plan period.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN1	SO1, SO3, SO5, SO7	4

- 3.5 The table below shows a breakdown of waste managed in Hertfordshire, using data from the Waste Data Interrogator 2015.

Site Category	Tonnes Received (2015)	Percentage
Landfill	1,596,657.94	39.6%
MRS	265,908.49	6.6%
On/In Land	480,444.00	11.9%
Transfer	652,179.26	16.2%
Treatment	932,582.08	23.2%
Use of Waste	99,620.00	2.5%
Total	4,027,391.77	100%

- 3.6 Based upon these figures, of all waste managed in Hertfordshire, the percentage that was landfilled is 39.6%, a reduction of 0.4% compared to last year's figures.

Table 4: Waste Core Strategy Target 2

Target 2: A reduction in the amount of waste produced per household to 1 tonne per year per household over the plan period.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN2	SO2, SO6	4

- 3.7 Based upon the figures obtained from the Waste Disposal Authority which are contained in Table 24 in Chapter 5, a total of 528,256.85 tonnes of LAC waste was managed/disposed of during 2016/2017. As there are 482,980

households³ in Hertfordshire this equates to approximately 1.1 tonnes of LAC waste per household. The figure for tonnes of LAC waste per household remains the same as last year figure for 2015/2016.

Table 5: Waste Core Strategy Target 3

<u>Target 3: New waste management facilities located within Areas of Search A-E to treat the identified LAC waste arisings (including organic) over the plan period.</u>		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN3	SO1, SO2, SO7	1,4

- 3.8 Between 1 April 2016 and 31 March 2017 there have not been any determined applications approved for new waste management facilities located within Areas of Search A-E to treat the identified LAC waste arisings (including organic) over the plan period, that would reduce the capacity shortfalls identified in Waste Core Strategy Tables 5 and 6.

Table 6: Waste Core Strategy Target 4

<u>Target 4: New waste management facilities to treat the identified C&I waste arisings over the plan period.</u>		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN4	SO1, SO2	1,7

- 3.9 Between 1 April 2016 and 31 March 2017, there have been no new waste management facilities to treat the identified C&I waste arisings over the plan period.

Table 7: Waste Core Strategy Target 5

<u>Target 5: A minimum of 60% of all LAC waste to be recycled or composted by 2026.</u>		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN5	SO1, SO3, SO6	1, 2

- 3.10 Table 25 in Chapter 5 outlines the amount of LAC waste that was managed (recycled, composted, recovered and landfilled) during 2016/2017. This amounted to a total of 528,256.85 tonnes of LAC waste, of which 52% was recycled and composted. This is an increase of 1.4% in the amount of LAC waste that was recycled and composted during the same period in 2015/2016.

³ Official figures supplied by the Valuation Office Agency on 26 July 2017

Table 8: Waste Core Strategy Target 6

Target 6: A minimum of 60% of all C&I waste to be recycled or composted by 2026.		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN6	SO1, SO3, SO6	1, 2

3.11 Of the C&I waste dealt with in Hertfordshire from 1 April 2016 to 31 March 2017, 87.2% was recycled or composted.⁴ This is based on the treatment of the waste streams in the following table:

Type of waste (tonnes) 2015	SOC1=12 minerals wastes	SOC1=10 mixed wastes and mixed ordinary wastes	Assumed remainder
Waste management category	CD&E	LAC	C&I
Landfill	1,384,279	200,635	11,743
MRS	107	4,711	261,090
On/In Land	480,444	-	-
Transfer	149,393	401,540	101,246
Treatment	348,751	75,630	508,200
Use of Waste	99,620	-	-
Totals	2,462,594	682,516	882,279

Table 9: Waste Core Strategy Target 7

Target 7: A minimum of 90% of all Construction, Demolition and Excavation waste to be diverted from landfill by 2026.		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN7	SO1, SO3,	4, 12

3.12 Of the CD&E waste dealt with in Hertfordshire in 2015, 43.8 % was diverted from landfill, which equates to a 0.2% decrease from last year's figures. This figure is based on the total of the waste management category CD&E (2,462,594) minus the landfill figure for this category (1,384,279).

3.13 This is a low percentage as the predominant form of management for CD&E waste was landfill. This target is to be achieved by 2026 and as such will be carefully monitored.

⁴ Environment Agency Waste Data Interrogator 2015

Table 10: Waste Core Strategy Target 8

Target 8: 0% of waste to be imported from London after 2015.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN8	SO2, SO7	1

- 3.14 Waste from London accounted for 24% of the total waste dealt with in Hertfordshire in 2015. This is an increase of 6 %.
- 3.15 Of this waste being managed from London, 51.2 % was sent to landfill in Hertfordshire in 2015⁵ making this an increase of 6.2% compared to the 45% in 2014.

Facility WPA	Site Category	Waste From London
Hertfordshire WPA	Landfill	505,650
Hertfordshire WPA	Metal Recycling	20,018
Hertfordshire WPA	On/In Land	229,870
Hertfordshire WPA	Transfer	68,982
Hertfordshire WPA	Treatment	107,183
Hertfordshire WPA	Use of Waste	42,000
Total		973,704

Table 11: Waste Core Strategy Target 9

Target 9 : Respond to all development proposals which The Waste Planning Authority considers will significantly impact upon waste management facilities in Hertfordshire		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN9	SO5,SO6	5,2

- 3.16 During the period of this AMR, the Waste Planning Authority has responded to 125 planning applications up to 31 March 2017. These have been identified from the ten district/borough weekly planning application lists, where development falls into the following categories:

- 1) Planning applications for 10 units and above;
- 2) Applications for commercial and industrial development of more than 500 sq.m;
- 3) Car parks with more than 200 spaces;

⁵ Environment Agency Waste Data Interrogator 2015

- 4) Planning applications that fall within an Allocated Site, as identified in the Waste Site Allocations document.

3.17 In addition to the above criteria, the figure also includes responses being sent regarding prior approval applications that involve the change of use from employment to residential and prior notification applications for the demolition of structures/buildings etc.

3.18 None of the planning applications were considered to have impact on the existing strategic waste sites that are identified in the adopted Waste Local Plan, or any other safeguarded waste management facility in the county

Table 12: Waste Core Strategy Target 10

Target 10: Object to proposals that are not in accordance with Policy 5: Safeguarding of Sites.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN10	SO1, SO2	5

3.19 As stated above, during the period of this AMR, the Waste Planning Authority has responded to 125 planning applications that have been identified from the ten district/borough weekly planning application lists. Out of those responded to, none resulted in a loss of an operational Site.

Table 13: Waste Core Strategy Target 11

Target 11: Increasing co-location of complimentary waste facilities.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN11	SO1,SO2	8

3.20 No planning applications have been determined during the period of this AMR for the co-location of complimentary waste facilities.

Table 14: Waste Core Strategy Target 12

Target 12: An overall increase in the number of waste management facilities with an element of energy recovery.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN12	SO5	3

3.21 No waste planning applications have been determined during the period of this AMR with an element of energy recovery.

Table 15: Waste Core Strategy Target 13

Target 13: An increase in the number of permitted applications which include alternatives to road transport.		
Relevant Indicator	Relevant Strategic Objective	Related Policy
IN13	SO4	9

3.22 Between 1 April 2016 and 31 March 2017, no waste related planning applications have been determined that include alternatives to road transport.

Table 16: Waste Core Strategy Target 14

Target 14: All applicable road-borne waste management facilities to be located no more than 5km from the strategic and primary road network		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN14	SO2, SO4	9

3.23 All waste management facilities that have been approved during 1 April 2016 and 31 March 2017 are located no more than 5km from the strategic and primary road network.

Table 17: Waste Core Strategy Target 15

Target 15: All planning applications to be granted in accordance with advice obtained from the Environment Agency, Historic England, Natural England, Highways England, Sport England and other relevant consulted bodies within the county council.		
Relevant Indicator	Relevant Strategic Objectives	Related Policies
IN15	SO1, SO4	3, 7, 10, 11, 13, 14, 15, 16, 17, 18, 19

3.24 Between 1 April 2016 and 31 March 2017, no planning applications have been granted contrary to the advice of Environment Agency, Historic England, Natural England, Highways England, Sport England and other relevant consulted bodies within the county council. In circumstances where no objections were raised subject to conditions being imposed, conditions have been applied to the planning permission.

Table 18: Waste Core Strategy Target 16

Target 16: Respond to all development proposals which the Waste Planning Authority considers could create significant waste during construction and demolition and request a Site Waste Management Plan.		
Relevant Indicator	Relevant Strategic Objectives	Related Policy
IN16	SO3, SO6	12

- 3.25 During the period of this AMR, the Waste Planning Authority has responded to a total of 125 planning applications. These have been for developments that fall within the four categories outlined in paragraph 3.17. The county council's standard response to all planning applications includes a paragraph outlining the need for SWMPs, which is also stated in Waste Core Strategy & Development Management Policy 12: Sustainable Design, Construction and Demolition.
- 3.26 In line with policy 12, the county council has provided comments on 13 SWMPs during the period of this AMR. This has been in addition to the general paragraph that is included in all responses to district/borough council planning applications. Although the government repealed the Site Waste Management Plans Regulations (2008), in December 2013, following a period of public consultation, the Waste Planning Authority will continue to request and respond to all SWMPs that are sent to the county council for consideration.

Table 19: Waste Core Strategy Target 17

Target 17: An overall reduction in the number of yearly breaches of planning control and complaints received relating to operational waste management facilities in the county.		
Relevant Indicator	Relevant Strategic Objective	Related Policies
IN17	SO1	16, 20

- 3.27 The number of waste planning enforcement cases for the year 1 April 2016 to 31 March 2017 was 86. This is an increase of eight compared to the figure of 78 in the previous AMR (2015/2016).
- 3.28 The number of complaints about operational waste management facilities for the year 1 April 2016 to 31 March 2017 was 77. This is an increase by fifteen compared to the figure of 62 in the previous AMR (2015/2016).⁶

⁶ Information on the number of waste planning enforcement cases and the number of complaints about operational waste management obtained from Hertfordshire County Council's Planning Enforcement Team

Issues to be addressed for next year's AMR

- 3.29 The county council is in the process of procuring new software for the recording of planning and enforcement information and is investigating the use of an online portal which may be used to record complaints separately.
- 3.30 As it is stated in paragraphs 5.7 and 5.8, Hertfordshire County Council will no longer be monitoring the capacity provided to treat Local Authority Collected Organic Waste, in light of the conclusions from the Waste Disposal Authority's revised Local Authority Collected Waste Spatial Strategy.
- 3.31 It is anticipated that the targets and indicators within this AMR, will need to be reviewed in light of any new software procured and to take into account the findings of the Waste Disposal Authority's revised Local Authority Collected Waste Spatial Strategy.

4.0 Minerals and Waste Development Scheme

Overview

- 4.1 The Minerals and Waste Development Scheme (MWDS) is a project plan and timetable for preparing Minerals and Waste Local Plan documents. It will enable anyone to see the local plan documents that the county council intends to produce and when. This can be monitored by checking the MWDS to see whether the dates and publication of any local plan documents correspond to the published dates in the scheme.
- 4.2 The current MWDS was revised in November 2016 and covers the period 2016-2020. It was revised, predominantly to reflect the process of the Minerals Local Plan review, in particular the need to undertake additional technical work on the Draft Plan Consultation, which is scheduled for June 2017. It also sets out the proposed timeline to review the Waste Local Plan, which includes the period up to its submission in November 2020.
- 4.3 The Waste Site Allocations Document (2014), which forms part of the Waste Local Plan, states that 'the plan will be reviewed in full every five years and a partial review may be undertaken sooner than that if required'. In line with the MWDS (Appendix 5) the county council is in the process of carrying out the initial stages to the Waste Local Plan review, which will include evidence gathering, an initial consultation and a call for sites (if required), all of which will take place over the next two years (2017-2019). Table 21 shows the key milestones and dates for the review of the adopted Waste Local Plan.

- 4.4 In addition to reflecting key milestones for the Minerals and Waste Local Plan reviews, the MWDS 2016 also reflects the yearly preparation and approval for the Authorities Monitoring Report and Local Aggregates Assessment and the adoption of the Minerals and Waste Development scheme 2016.

Local Plan Production Timetables

- 4.5 Tables 20-21, report upon the progress of Waste Local Plan review and the Minerals Local Plan review. Table 20 sets out the new proposed dates for updating the Minerals Local Plan within the 2016 MWDS compared against the previous dates from the 2014 MWDS. Table 21 covers the timeline for the Waste Local Plan review.

Minerals Local Plan review

- 4.6 The main changes to the MWDS for the Minerals Local Plan are set out in the table below. The main change to the timeline is the need for further technical work to inform the Draft Plan to ensure that a robust evidence base supports the MLP. This will, consequently have a knock on effect to the subsequent stages of the review process.

TABLE 20: Progress of the Minerals Local Plan review

Milestone	MWDS 2016	Actual
Initial Consultation (Public Engagement)	August 2015 – October 2015	The Initial Consultation took place in line with the MWDS, from 3 August – 16 October 2016.
Call for Sites	February – April 2016	The county council carried out the call for sites exercise in line with the MWDS, over the period of 29 February – 16 April 2016
Draft MLP Plan consultation (Public Engagement)	August – October 2017	Draft Minerals Local Plan scheduled to be published for full consultation over an eight week period, starting in December 2017. Delayed due to the need to undertake further technical work
Date for Publication of MLP Proposed Submission (Public Participation)	August – October 2018	N/A
Submission to	November 2018	N/A

the Secretary of State for independent examination		
Possible independent examination period (depending upon the precise date when the document is submitted to the Secretary of State)	January – March 2019	N/A
Publication of the Inspector's Report into the examination of the document (this is dependent upon the precise dates of the independent examination)	April - June 2019	N/A
Presentation of the Minerals Local Plan to Cabinet Panel, Cabinet and County Council for adoption	October –November 2019	N/A
Proposed Date for Adoption of the Minerals Local Plan	November 2019	N/A

Waste Local Plan review

- 4.7 The timeline for the Waste Local Plan review is set out below. These key milestones are reflected in Section 4 of the MWDS. The first stage of the timeline shows the initial evidence gathering to be undertaken through 2017 through to 2019. It is anticipated that within this time at least one stage of public consultation would be undertaken and if required- a call for sites. Following on from this milestone, is the intention that the Draft Waste Local Plan consultation would be undertaken in summer 2019 and subsequent plan making stages following this. The key milestones are considered to be realistic and achievable, barring unforeseen circumstances.

TABLE 21: Progress of the Waste Local Plan

Milestone	MWDS 2016 Timeline	Actual
Initial stages including evidence gathering, initial consultation and call for sites (if required)	2017 -2019	In line with the MWDS the county council is in the process of carrying out the initial stages to the Waste Local Plan review
Draft WLP Plan consultation (Public Engagement)	August – October 2019	N/A
Publication of Proposed Submission (Public Participation)	August – October 2020	N/A
Submission to the Secretary of State	November/December 2020	N/A
Possible Examination and Adoption of the Waste Local Plan	2021	N/A

5.0 Waste Monitoring

Overview

5.1 In order to meet the requirements of the National Planning Policy for Waste (published in October 2014) and to achieve county net self-sufficiency, there are a number of key factors driving the need for change in the way Hertfordshire's waste will need to be managed in the future, including:

- Significant policy shifts towards greater waste minimisation, recovery and recycling of waste;
- Rapidly reducing landfill space;
- New government legislation and EU directives;
- Rapidly increasing costs of waste management; and
- Increasing public expectations.

Waste Core Strategy Future Capacity Requirements

5.2 Tables 5, 6, 8 and 9 in the adopted Waste Core Strategy and Development Management Policies document, outline the future waste capacity requirements and shortfalls that have been identified for local authority collected (LAC) and commercial and industrial wastes (C&I) during the 15 year plan period (2011-2026).

5.7 In November 2016, the Waste Disposal Authority at Hertfordshire County Council revised its Local Authority Collected Waste Spatial Strategy. The document states that the Waste Disposal Authority considers that there is adequate capacity provided by existing privately owned facilities and facilities with planning permission to treat projected organic waste levels up to 2030/31⁷.

5.8 As a result of the findings set out in the revised Waste Spatial Strategy, Hertfordshire County Council, as the Waste Planning Authority, will no longer be reporting on capacity provided for the shortfalls identified in Waste Core Strategy Table 5.

5.9 The conclusions of the revised Local Authority Collected Waste Spatial Strategy will be taken into consideration in the review of Hertfordshire County Council's adopted Waste Local Plan.

5.10 Since the future waste capacity requirements and shortfalls were collated during the examination into the soundness of the Waste Core Strategy & Development Management Policies document in November 2011, there have been a number of planning permissions granted that will count towards

⁷ Wording from the Waste Disposal Authority's Local Authority Collected Waste Spatial Strategy October 2016

fulfilling each of the capacity shortfalls identified in tables 6, 8 & 9 (of the Waste Core Strategy). These are summarised below.

Additional LAC Residual Waste Treatment Capacity (Waste Core Strategy Table 6)

5.12 Waste Core Strategy Table 6 identifies a shortfall of 276,000 tonnes for LAC residual waste by 2016 within the county, which decreases to 232,000 tonnes per annum by 2026 as shown below in the table.

5.13 The County Council has not granted any planning permissions since November 2011 that will count towards fulfilling the capacity shortfall for LAC residual waste, outlined in Waste Core Strategy Table 6.

Table 22: Additional LAC Residual Waste Treatment- Capacity provided and the forecasted Capacity Shortfalls

Capacity Provided Since 2011			Capacity Shortfall		
Additional capacity from 2011- 31 March 2016 (A)	Additional Capacity provided during this year's AMR period (B)	Total Capacity Provided (Total of A&B)	2016	2021	2026
N/A	N/A	N/A	276,000	254,000	232,000

Additional C&I Composting and Recycling Capacity (Waste Core Strategy Table 8)

5.14 Waste Core Strategy Table 8 identifies a shortfall of 210,000 tonnes for C&I composting and recycling capacity within the county by 2016, which increases to 245,000 tonnes per annum by 2026. Since the last AMR there have been no planning permissions granted by the county council that count towards fulfilling the capacity shortfall for C&I composting and recycling requirements. Since 2011, the total increase in C&I composting and recycling capacity equates to 639,130 per annum.

Table 23: Additional C&I Composting and Recycling- Capacity provided and the forecasted Capacity shortfalls

Capacity Provided Since 2011				Capacity Shortfall		
Initial 2011 Figures (A)	Additional capacity from 2011- 31 March 2016 (B)	Additional Capacity provided during this year's AMR period (C)	Total Capacity Provided (Total of A,B&C)	2016	2021	2026
332,000	307,130 ⁸	N/A	639,130 Tonnes	210,000	230,000	245,000

⁸ ASM Metal Recycling Centre, Kings Langley(recycling, recovery, storage and management of waste metal) - 25,000 tonnes, Coursers Farm, St Albans(Anaerobic Digester) - 28,130 tonnes, Ratty's Lane, Hoddesdon (Anaerobic Digester)- 60,000 tonnes, on land at Bygrave Lodge Farm, Baldock(Anaerobic Digester) - 30,000 tonnes, Cattlegate Farm, Enfield (Anaerobic Digester) - 25,000 tonnes, Cattlegate Farm, Enfield (composting facility) - 25,000 tonnes, Alchemy Metals Ltd, Cavendish Road, Stevenage- 14,000 tonnes, BP Mitchell Ltd, Land at Birchall Lane/Cole Green Lane, Burnside, Hertford Road, Hatfield, Hertfordshire, AL9 5RB- 100,000

Additional C&I Remaining Residual Available for Treatment Capacity (Waste Core Strategy Table 9)

5.15 Waste Core Strategy Table 9 identifies a shortfall of 397,000 tonnes for C&I residual waste treatment within the county by 2016, which decreases to 370,000 tonnes per annum by 2026. Since last year's AMR there have been no planning permissions granted by the county council that would count towards fulfilling the capacity shortfall for the remaining C&I residual waste for treatment, outlined in Waste Core Strategy Table 9.

Table 24: Additional C&I Remaining Residual Available for Treatment- Capacity Provided and the forecasted Capacity Shortfalls

Capacity Provided Since 2011				Capacity Shortfall		
Initial 2011 Figures	Additional capacity from 2011- 31 March 2016	Additional Capacity provided during this year's AMR period	Total Capacity Provided (Total of A,B&C)	2016	2021	2026
(A)	(B)	(C)				
39,000	100,000 ⁹	N/A	139,000	397,000	387,000	370,000

⁹ Ratty's Lane, Hoddesdon(Sustainable Energy Facility) - 100,000 tonnes

Local Authority Collected Waste Arisings and Treatment 2015/2016

- 5.16 In addition to the monitoring requirements laid down in paragraph 1.6, the AMR also monitors the county's local authority collected waste arisings and treatment for the period 2016/2017. This is in order to measure the types of waste treated within the county, and more importantly, to analyse the county's recycling rates, to ensure that Hertfordshire is progressing towards meeting national and local recycling targets, and moving waste management up the waste hierarchy.
- 5.17 The table below lists local authority collected waste arisings and treatment for the period 2016/2017. These figures have been obtained from the county council's Waste Management Unit in June 2017.

Table 25: Management/disposal of local authority collected waste 2016/2017

Treatment	tonnes	Percentage
Recycled	153,393.13	29.0
Composted	121,756.77	23.0
Energy Recovery	193,114.82	36.6
Landfilled	59,992.13	11.4
Total	528,256.85	100.0

- 5.18 In 2016/2017, 52% of Local Authority Collected Waste (LAC) was re-used, recycled or composted. To put this in some context, the National target for the UK is to re-use, recycle or compost 50% of household waste by 2020. A further 36.6 % was delivered for treatment to energy recovery facilities. This gives a total of 88.6% of LAC Waste that was diverted from landfill and represents an increase of 6.4% on the previous equivalent combined figure for 2015/2016.

6.0 Conformity with the EU Waste Framework Directive

- 6.1 This section outlines how the Waste Planning Authority has complied with the requirements of The European Union Waste Framework Directive (2008/98/EC).
- 6.2 It is important to note at this stage, that this year's AMR and subsequent ones to follow will continue to monitor Hertfordshire County Council's (as the Waste Planning Authority) compliance with the relevant European Directives set out within this document, until Britain exits the European Union (which is scheduled to take place by the end of March 2019).
- 6.3 The influence that the EU has on the planning system is through Directives which are transposed into legislation within the UK nations. At this moment in time it is too early to know what implications leaving the European Union will have on the planning system in Britain, in terms of its work and the legal and economic context under which it operates.
- 6.4 The EU Waste Framework Directive states that the types of waste that have to be planned for are:
- Commercial and Industrial;
 - Construction and Demolition;
 - Local Authority Collected (formerly known as municipal solid);
 - Low Level Radioactive;
 - Agricultural;
 - Hazardous;
 - Waste Water.
- 6.5 In line with the requirements of the National Planning Policy for Waste (NPPW), the Waste Local Plan, plans for the future waste arisings and required facilities needed for the processing of Local Authority Collected waste (LAC) and Commercial and Industrial waste (C&I). Chapter 5 of this AMR outlines the number of approved waste management facilities since 2011¹⁰ that count towards reducing the capacity shortfalls identified in Waste Core Strategy Tables 6, 8 and 9 for LAC and C&I wastes.
- 6.6 Whilst Construction and Demolition waste (C&D) also has to be planned for, the Waste Local Plan concludes that there is sufficient permitted capacity for

¹⁰ This is when the Waste Core Strategy & Development Management Policies document was examined.

the disposal and treatment of this type of waste.¹¹ There is also no identified need to provide facilities that specifically deal with the remaining types of waste that are outlined in paragraph 6.4.

Relevant Articles from the Directive

- 6.7 The EU Waste Framework Directive is made up of the following five Articles which Waste Planning Authorities play a key role in implementing:
- Article 4: Waste Hierarchy
 - Article 13: Protection of human health and the environment
 - Article 16: Principles of proximity and self-sufficiency
 - Article 28: Waste Management Plans
 - Article 34: Periodic Inspections
- 6.8 Although the Waste Planning Authority has a responsibility to comply with the above five Articles, it is also the responsibility of all Local Planning Authorities to implement Articles 4 and 13.¹² The following paragraphs outline how the county council as Waste Planning Authority has, where possible, complied with Articles 4, 13, 16, 28 and 34.

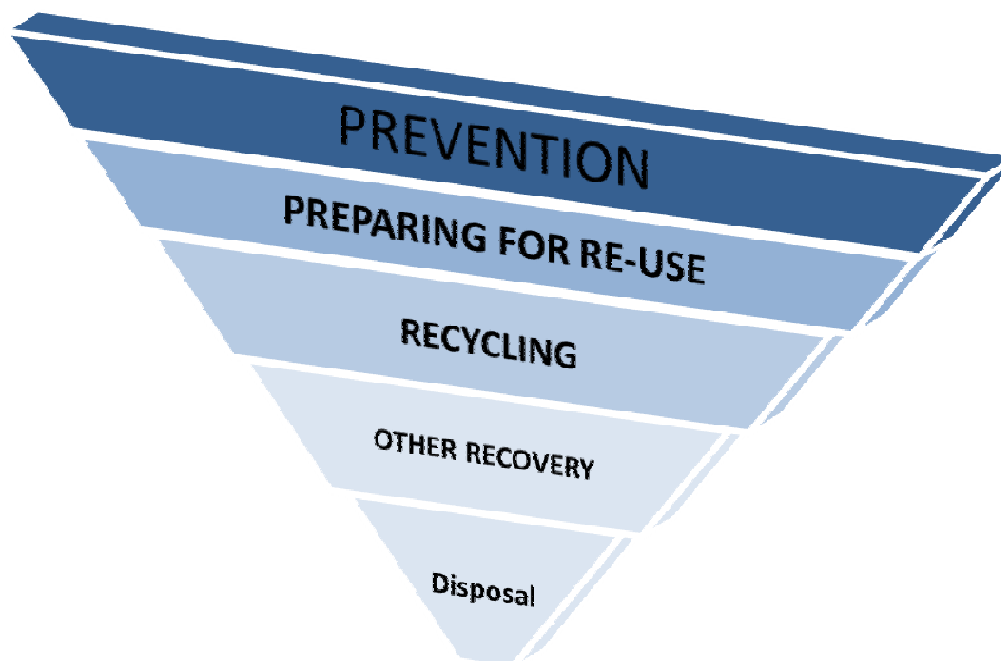
Compliance with Article 4: Waste Hierarchy

- 6.9 Article 4 places a duty to apply the Waste Hierarchy as a priority order in waste management policy and legislation. Nationally, the Waste Hierarchy is reflected in the NPPW, published in October 2014. This requires all planning authorities (including non -Waste Planning Authorities) to prepare planning documents that drive waste management up the hierarchy.
- 6.10 The Hertfordshire Waste Hierarchy, which is contained in the Waste Local Plan and reflects the Waste Hierarchy in the NPPW, dictates the strategic approach for waste management in Hertfordshire and is shown below:

¹¹ Waste Core Strategy & Development Management Policies document, p. 30, paragraphs 3.20 and 3.21.

¹² Guidance for local planning authorities on implementing planning requirements of the European Union Waste Framework Directive (2008/98/EC), DCLG, 2012, p.7.

The Hertfordshire Waste Hierarchy



6.11 In line with the Hertfordshire Waste Hierarchy, given the need to minimise the amount of waste disposed of in landfill, the approach to waste management in the county is therefore driven by the aim to:

- prevent the quantity and volume of waste produced
- reuse waste materials without further processing
- recover the value of waste materials through recycling, composting or energy recovery.

6.12 The Hertfordshire Waste Hierarchy is a material consideration in the determination of planning applications for new waste management facilities and has been transposed into the policies that are contained in the Waste Local Plan. All waste related planning applications that have been determined during the period of this AMR have been considered against the Hertfordshire Waste Hierarchy.

6.13 Compliance with the Waste Hierarchy also requires all planning authorities to ensure that there is no loss of operational waste management facilities to other forms of development. Target 10 requires the Waste Planning Authority to object to proposals that are not in accordance with Waste Core Strategy Target 11, which is linked to Policy 5: Safeguarding of Sites. As stated in paragraph (paragraph under target 10) none of the safeguarded waste management facilities were lost to non-waste related development during the

period of this AMR. This has been achieved through the monitoring of each of the ten district/ borough weekly planning application lists.

6.14 Implementation of the Waste Hierarchy also requires the Waste Planning Authority to work with district/borough councils to ensure that the impact of non-waste related development on existing waste management sites is considered. The county council pro-actively responds to all relevant local plan consultations to ensure that waste related planning issues are addressed in each emerging local plan. During the period of this AMR, the Waste Planning Authority has provided responses to the following local plan consultations:

- The Broxbourne Borough Council Draft Local Plan consultation (August 2016)
- East Herts Council, Pre Submission version Local Plan (December 2016)
- Hertsmere Site Allocations and Development Management Document Modifications Consultation (July 2016)
- North Herts Proposed Submission Local Plan (November 2016)
- Watford Junction Development Brief (which form part of the evidence base for the emerging Local Plan Part 2) (September 2016)
- Watford Local Plan Part 2- Site Allocations and Development Management Policies Publication 2016 (October 2016)
- Watford Scoping Consultation for the Local Plan Strategy 2016-2031 (December 2016)
- Welwyn/Hatfield- Draft Local Plan Proposed Submission (October 2016)

6.15 The county council also responds to adjoining authority's local plan consultations, where any proposals for development may have a potential impact upon the county. However, during the period of this AMR, there were no proposals for developments that may impact upon the County and therefore did not need to provide any responses to Local Plan consultations.

6.16 As previously stated in Chapter 3, the county council responds to all district borough planning applications that are within the thresholds that are outlined in paragraph 3.16. This is in order to ensure that the county's local planning authorities are taking into consideration the relevant policies in the Waste Local Plan and that Site Waste Management Plans (SWMPs) are submitted by the applicant/ developer, which are designed to ensure that waste is managed in accordance with the Hertfordshire Waste Hierarchy.

Compliance with Article 13: Protection of Human Health and the Environment

- 6.17 The role of Waste Planning Authorities in developing waste local plans and considering individual planning applications should be to seek to control the development and use of land in the public interest. The adopted Waste Core Strategy and Development Management Policies document has been written in conformity with the EU Waste Framework Directive and contains a specific Strategic Objective (SO1) which requires all new waste management facilities to be located in a way that ensures no harm to human health and the environment.
- 6.18 This has also been transposed into Waste Core Strategy Policies 3, 4 8, 11, 12, and 13, which specifically reiterates this. Paragraph 2.15 in Chapter 2, shows that all of these policies have been implemented and considered in the determination of waste related planning applications during the period of this AMR. The protection of human health has also been a consideration in the allocation of sites and Employment Land Areas of Search in the Waste Site Allocations document.

Compliance with Article 16: Principles of Self-Sufficiency and Proximity

- 6.19 Waste Planning Authorities should ensure that, as far as is practicable, sufficient waste disposal facilities and facilities for the recovery of mixed municipal waste collected from households exists within their local waste plan area.¹³The county council's vision for waste management 2026 and Waste Core Strategy Strategic Objective 1 (SO2) both state that waste recycling, handling and reduction facilities should be located as close as practicable to the origin of waste. Waste Core Strategy Strategic Objective 7 (SO7) goes onto say that the county council will work with all neighbouring waste authorities to manage the equivalent of the county's own waste arisings.
- 6.20 The current list of safeguarded waste sites in Appendix 2, provide a network of waste management facilities in the county, including the 17 Household Waste Recycling Centres that are spatially distributed to serve the residents of Hertfordshire. The remaining Allocated Sites identified in the Waste Site Allocations document, including the remaining Employment Land Areas of Search, are considered to provide a sufficient number of locations to fulfil the capacity shortfalls for LAC and C&I wastes in Waste Core Strategy Tables 5, 6, 8 and 9.
- 6.21 The adopted Waste Site Allocations document has a number of Allocated Sites and Employment Land Areas of Search located within, or near to Areas of Search A, B, C, D and E for LAC waste treatment and transfer facilities. This provides a broad spatial distribution of potential sites and employment land that would be suitable for waste management facilities. Whilst these sites would also be potentially suitable for C&I and C&D waste treatment facilities, the remaining Allocated Sites and Employment Land Areas of Search would be suitable for C&I and C&D waste treatment facilities including LAC.

¹³ Guidance for local planning authorities on implementing planning requirements of the European Union Waste Framework Directive (2008/98/EC), DCLG, 2012, p.16.

Compliance with Article 28: Waste Management Plans

6.22 This part of the Directive requires Waste Planning Authorities to consider the following key considerations in the development of waste local plans:

- Details of existing major disposal and recovery installations
- An assessment of the need for the closure of existing waste management facilities and the need for additional waste installation infrastructure
- Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations

Details of existing major disposal and recovery installations

6.23 The adopted Waste Core Strategy & Development Management Policies document identifies five Existing Strategic Sites, which provide waste management beyond the local areas in which they are located. These are:

- Cumberlow Green Farm near Buntingford
- Cupid Green Depot, Hemel Hempstead
- Redwell Wood Farm/Ridge
- Waterdale Waste Transfer Station
- Westmill Quarry/Landfill, Ware

6.24 These five sites are considered to be strategic as they are essential to the current and future waste management of LAC waste in the county. These existing strategic sites perform a waste management function and are therefore safeguarded.

6.25 Cumberlow Green Farm and Redwell Wood Farm/Ridge are the only two locations within the county that operate in-vessel composting facilities, which accept LAC waste from seven of the ten districts/ boroughs within Hertfordshire. Westmill Quarry/Landfill is the county's only remaining municipal landfill, the planning permission of which expires in December 2017. However, Cemex UK (the landowner) submitted an application to Hertfordshire County Council in January 2016, for the variation of conditions on the time limit for commencement and restoration of the site. Proposing that final landfill would be completed by the end of 2023, final capping would occur by the end of 2025 and the restoration of soils and landscaping would be completed by 2023. The application is still awaiting decision.

6.26 Waterdale contains an existing waste transfer station which is used for the bulking of waste prior to being sent for treatment. Cupid Green, Hemel Hempstead contains a waste transfer station, which is linked to a contract with the composting facility at St Ives in Cambridgeshire.

6.27 Three of the above strategic sites (Cumberlow Green Farm, Westmill Quarry/Landfill and Waterdale Waste Transfer Station) also have the potential for enhancement and are therefore also listed as Allocated Sites in the adopted Waste Site Allocations document.

An assessment of the need for the closure of existing waste management facilities and the need for additional waste installation infrastructure

- 6.28 An assessment of the need for closure of existing waste management facilities and the need for additional waste installation infrastructure. The Waste Planning Authority does not consider that any of the permanent, permitted waste management facilities in Hertfordshire should be closed, as these are safeguarded under the provision of Waste Core Strategy Policy 5: Safeguarding of Sites. However, some waste management facilities may cease operating due to economic or other reasons and this is normally beyond the control of the Waste Planning Authority. Paragraphs 6.36 and 6.37 list the number of sites that are no longer safeguarded when compared to the list of safeguarded waste sites in the previous 2015/2016 AMR.
- 6.29 Whilst some operating waste management facilities are historic, many facilities are required to operate with enforceable conditions that are imposed on a decision notice. These may include restrictions on the hours of operation (including restrictions on weekend and bank holiday working), limits on waste throughput, limits on vehicle numbers etc. This is not an exhaustive list, as it is very much dependent upon the type and scale of waste management facility.
- 6.30 However, some waste management facilities are time limited for various reasons and these are listed below:

- Anstey Chalk Quarry, Anstey. Waste Transfer Station and chalk extraction. Permitted until 30-06-2020.
- Water Hall Quarry, Lower Hatfield Road, Bayford. Materials Recovery Facility linked to the inert landfill.
As stated in the previous AMR, Waterhall Quarry was permitted until 30-11-2014.
The county council received an application in March 2016 to extend the time limit for completion of restoration of Waterhall Quarry up until December 2019. The application was refused on 15 June 2016 but the applicant has lodged an appeal against the decision, which is yet to be determined.
- Westmill Quarry and landfill, Ware. Sand and gravel extraction and municipal landfill. Permitted until 31-12-2017.
- Westmill Quarry, Ware. Soil Repair Centre. Permitted until 31-12-2017 (this is linked to the end date for the current sand and gravel extraction and landfill operation).

- Land at Redwell Wood Farm, Ridge. In-vessel Composting Facility. Permitted until 31-12-2034.
- Codicote Chalk Quarry, Codicote. Waste treatment processing linked to chalk extraction. Permitted until 21-02-2042.
- Great Westwood Quarry, Fir Tree Hill, Chandlers Cross, Watford.

It was stated in the previous AMR that Great Westwood Quarry had an extension to increase the time period to complete restoration by one year and amend final infilling by August 2015.

CEMEX submitted an application to the county council that proposes enhancement to the restoration of Great Westwood Quarry through the importation of inert materials, to extend the restoration to September 2018. The application was granted planning permission in September 2016, subject to a legal agreement which is yet to be resolved.

6.31 Westmill Quarry has been included in the above list, as this is the only municipal landfill remaining in the county. Whilst the site is currently permitted until December 2017, an application was submitted to Hertfordshire County Council in January 2016 by Cemex UK, for the variation of conditions on the time limit for commencement and restoration of the site, details of which are outlined above in paragraph 6.25.

6.32 Revised shortfalls in capacity for LAC and C&I waste since November 2011 are listed in tables 22-24. Appendix 4 lists the number of waste related planning applications that have been determined throughout the period of this AMR. It should be noted that whilst these may count towards reducing the shortfalls in capacity that have been identified for LAC and C&I wastes, many of these approved facilities are not yet operational and once they commence operating, they may not operate to their full capacity.

Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations.

6.33 The adopted Waste Site Allocations document contains a Policies Map, which shows the location of the Existing Strategic Sites, Allocated Sites and Employment Land Areas of Search in the county. Areas of Search A, B, C, D and E have also been transposed onto the Policies Map which shows the number of Allocated Sites and Employment Land Areas of Search that are located within the Areas of Search.

6.34 This AMR includes an updated list of safeguarded waste sites (in Appendix 2), which will continue to be updated in future AMRs. The county council considers this to be the most suitable mechanism to monitor the number of safeguarded sites within the county on an annual basis.

Compliance with Article 34: Inspections

6.35 Monitoring and enforcement officers from the county council's Spatial and Land Use Planning Unit have been visiting known waste site sites in the county during the period of this AMR. These inspections form part of this statutory requirement and are often combined with wider inspections to check compliance with the terms of a particular planning permission or where there may have been an alleged breach of planning control. Whilst the regulations do not prescribe a frequency when these visits should occur, it is the intention of the county council to conduct waste site inspections on an annual basis.

6.36 The following sites that appeared on the safeguarded list in the 2015/2016 AMR are no longer operating and are therefore no longer safeguarded:

- Bushey Auto Repair Centre LTD , Unit 4g Rossway Drive, Little Bushey Lane, Bushey, WD23 3RY (End of life Vehicle Facility)
- Dealergem Ltd, Unit 5 Rossway Industrial Estate, Rossway Drive, Bushey, Watford, WD23 3RY(end of life vehicle Facility)
- Rossway Recovery Ltd, Unit 8a Rossway Drive, Bushey, WD23 3RY (End of Life Vehicle Facility)
- Scavengers Car Breakers, Unit 4g Rossway Drive, Little Bushey Lane, Bushey, WD23 3RY (End of Life Vehicle Facility)
- RS Automotive Ltd, Unit 16, Station Approach, Hitchin SG4 9UW (End of Life Vehicle Facility)
- Cardiff Road, Watford (Unit 16), Metal Recycling Ltd, Cardiff Road Industrial Estate, Watford, WD18 0DG (End of Life Vehicle Facility)
- Jacks Hill, Graveley, Brycelands Removal Ltd, Jacks Hill, Great North Road, Hitchin, SG4 7EQ (Waste Recycling Facility)
- Baldock Tyres, Ultratec Ltd Baldock Tyres, Unit 22, Baldock Industrial Estate, 7 London Road, Baldock (tyre recycling)
- Temple Motors, Elv Dismantler, Warehams Lane, Hertford, SG14 1LA.End of Life Vehicle Facility

6.37 In addition to the above sites, there are number of other sites which have been removed from the Safeguarded list for reasons other than no longer being in operation. These sites are set out below along with the reasons as to why they have been removed from the safeguarded list:

- Yard 1, Redbourn Road, Cupid Green, Yard 1, Redbourn Road, Cupid Green, Hemel Hempstead, Hertfordshire HP2 7JH, End of Life Vehicle facility

This site has been removed from the safeguarded list as it was discovered to be the same site as Hemel Carbreakers (Cupid

Green Yard, Redbourn Road, Hemel Hempstead, Hertfordshire HP2 7AZ) but had been miss-recorded under a different name.

- AVC Sherrards, c/o Sherrards, 45 Grosvenor Road, St Albans AL1 3AW, WEEE Treatment Facility

This site has been removed from the safeguarded list as it was discovered to be a registered office address and not the address of the waste management facility. The waste site is found at AVC Stevenage, Avc House, Bessemer Drive, Stevenage, SG1 2DT, which is listed in the Safeguarded sites list, under the Stevenage Borough District.

- Kings Langley Depot, Kings Langley Depot, Railway Terrace, Kings Langley, WD4 8JE, Salt storage Barn

The Salt Storage Barn at Kings Langley Depot has been removed from the safeguarded list as the site had been miss-recorded in previous AMR's. The county council does not safeguard salt storage barns as they are not considered to be a waste management facility.

- Bridgefields , Welwyn Garden City Metals Ltd, Tewin Road, Welwyn Garden City AL7 1BD, (End of Life Vehicle Facility and a Biological Treatment Facility)

This site has been removed from the safeguarded list due to it being recorded twice but under a different site name. The site is now only recorded in the safeguarded list under the name of Welwyn Garden City Metals Ltd.

7.0 Duty to Co-Operate

The County Council's Fulfilment of the Duty to Co-Operate

- 7.1 Section 33A of the Planning and Compulsory Purchase Act 2004 requires local planning authorities to have engaged constructively, actively and on an ongoing basis with the prescribed bodies mentioned in the Localism Act 2011 and the Town and Country Planning (Local Planning) (England) Regulations 2012.
- 7.2 The duty to co-operate is not however a duty to agree with any of the prescribed bodies, it is to ensure that there has been effective engagement with them throughout the plan making process. However, the National Planning Practice Guidance (NPPG) which was launched in March 2014, as a web-based guide to compliment the NPPF, states that "...co-operation should produce effective and deliverable policies of strategic boundary matters."
- 7.3 Section 34(6) of the Town and Country Planning (Local Planning) (England) Regulations 2012, stipulates that an AMR must outline how the duty to co-operate obligation has been fulfilled over the period.
- 7.4 In summary, during the period of this AMR, the county council has been fulfilling the duty to co-operate in a number of ways:
- 7.5 A meeting between members of the Minerals and Waste Planning Authority and the Hertfordshire Local Enterprise Partnership took place on June 29, 2016. This meeting was held to ensure that the Hertfordshire Local Enterprise Partnership understood the process of the review of the Minerals Local Plan and to establish an ongoing dialogue between the two bodies.
- 7.6 Writing to relevant minerals and waste planning authorities where the movement of minerals and waste has been identified as being either imported or exported to Hertfordshire. This is in order to establish broad agreement on the identified flows and whether these are sustainable for the foreseeable future.
- 7.7 Six monthly meetings are held with all of the county's ten district/borough councils, to discuss the progress of various matters. These various matters included each of their respective Local Plans, Green Belt reviews (if appropriate), any major developments that are, or are likely to take place within each local authority area including possible future housing numbers and the continued review of the Minerals and Waste Local Plans. The six monthly meetings that took place within this AMR period were held between May-June 2016 and November to December 2016.
- 7.8 These meetings have been an opportunity for the county council to have face-to-face discussions regarding the content of the emerging Minerals Local

Plan, along with an opportunity to discuss other issues that are of mutual benefit.

- 7.9 The Duty to Co-operate Protocol Document outlines how the county council aims to fulfil the duty throughout the review of the Minerals Local Plan and also outlines how the county council intends to continually engage with identified bodies/organisations on waste planning issues.
- 7.10 Officers from the Spatial Planning & Economy Unit have also regularly attended meetings held by the Herts Planning Group and the Waste Technical Advisory Body. The Herts Planning Group consists of development plan officers from all ten district/borough councils in the county and the county council. These meetings which have been taking place for a number of years provide an opportunity for officers to discuss current plan-led work within Hertfordshire, impacts of national planning policy on development plan production and consultation timetables. There have been a total of four during the period of this AMR (1 April 2016-31 March 2017).
- 7.11 The Waste Technical Advisory Body for the East of England (WTAB) consists of officers from local planning authorities in the former East of England region. The purpose of these meetings is to work together to develop best practice in waste planning, which includes discussing issues relating to the levels of waste generated and the nature of that waste. The meetings play a key role in fulfilling the duty co-operate obligation in the delivery of strategic functions by local authorities in the East of England and other neighbouring authorities. There have been a total of four meetings during the period of this AMR (1 April 2016-31 March 2017).

Appendix 1: Current Minerals and Waste Local Plan Policies

Hertfordshire Waste Local Plan Policies (2011-2026)

As stated in paragraph 1.22, Hertfordshire County Council has begun to embark on the review of its adopted Waste Local Plan. At present and in line with the Minerals and Waste Development Scheme the county council is in the initial stages to the review of its adopted Waste Local Plan and is carrying out initial evidence gathering.

The 21 policies that are contained within the adopted Waste Core Strategy & Development Management Policies document and the two policies within the adopted Waste Site Allocations document form the Hertfordshire Waste Local Plan are listed below:

Adopted Policies in the Waste Core Strategy & Development Management Policies Document

- Policy 1: Strategy for the Provision of Waste Management Facilities
- Policy 1A: Presumption in Favour of Sustainable Development
- Policy 2: Waste Prevention and Reduction
- Policy 3: Energy & Heat Recovery
- Policy 4: Landfill and Landraise
- Policy 5: Safeguarding of Sites
- Policy 6: Green Belt
- Policy 7: General criteria for assessing planning applications outside of identified locations
- Policy 8: Waste Parks/Combined Facilities
- Policy 9: Sustainable Transport
- Policy 10: Climate Change
- Policy 11: General Criteria for Assessing Waste Planning Applications
- Policy 12: Sustainable Design, Construction and Demolition
- Policy 13: Road Transport & Traffic
- Policy 14: Buffer Zones
- Policy 15: Rights of Way
- Policy 16: Soil, Air and Water
- Policy 17: Protection of Sites of International and National Importance
- Policy 18: Protection of Regional and Local designated sites and areas
- Policy 19: Protection and Mitigation
- Policy 20: Monitoring and Enforcement

Adopted Policies in the Waste Site Allocations Document

- Policy 1A: Presumption in Favour of Sustainable Development
- Policy WSA2: Applications for Waste Management Development on Allocated Sites and Employment Land Areas of Search

Hertfordshire Minerals Local Plan 2002-2016 (Adopted March 2007)

The current Minerals and Local Plan is under review, once the new plan has been adopted, each of the policies will be replaced in the new Local Plan. The Policies in the Minerals Local Plan were 'saved' by a Direction of the Secretary of State in March 2010, and have therefore remained part of the Development Plan for Hertfordshire. These saved policies are outlined below.

Saved Policies in the Minerals Local Plan

- Policy 1: Aggregates Supply
- Policy 2: Need for Mineral Working
- Policy 3: Sites for Sand and Gravel Extraction and the Working of Preferred Areas
- Policy 4: Applications Outside Preferred Areas
- Policy 5: Mineral Sterilisation
- Policy 6: Other Non-Energy Minerals
- Policy 7: Secondary and Recycled Materials
- Policy 8: Recycling Facilities on Mineral Sites
- Policy 9: Contribution to Biodiversity
- Policy 10: Railheads and Wharves
- Policy 11: Cumulative Impact
- Policy 12: Landscape
- Policy 13: Reclamation Scheme
- Policy 14: Afteruse
- Policy 15: Landfill
- Policy 16: Transport
- Policy 17: Criteria for the Control of Mineral Development to Protect Critical Capital and Other Environmental Assets
- Policy 18: Operational Criteria for the Control of Mineral Development
- Policy 19: Enforcement of Planning Control

Appendix 3 and 4 list the Waste Local Plan and Minerals Local Plan policies that have been used when determining Minerals and Waste related planning applications throughout the period of this AMR.

Appendix 2: List of Safeguarded Waste Sites (Per District) as of March 2016

Site Name	Site Address	Facility Type
Borough of Broxbourne		
Council Depot- Broxbourne (Fairways)	Broxbourne Borough Council Depot, New River Trading Estate, Waltham Cross, EN8 0NP	District council depot
Froom & Co, Essex Road	Froom & Co Ltd, River Works, Essex Road, Hoddesdon, EN11 0AT	Waste transfer station and chemical treatment facility
Household Waste Recycling Centre, Hoddesdon	Household Waste Recycling Centre, Pindar Road, Hoddesdon EN11 0DA	Household Waste Recycling Centre
Household Waste Recycling Centre, Turnford	Household Waste, Recycling Centre, Brookfield Farm, New River Trading Estate, Waltham Cross, EN8 0NP	Household Waste Recycling Centre
Land at Bridge Works, Rye Park Industrial Estate	Robert Gibbs Co. Ltd, Rye Park Industrial Estate, Hoddesdon EN11 0EW	Metal waste transfer station and End of life vehicle facility
Land at Ratty's Lane	Land at Ratty's Lane, Hoddesdon EN11 0RF	Sustainable Energy Facility-Advanced Thermal Treatment and Anaerobic Digester
TES Oil and Water Plant/Bio Marsh	Bio Marsh Environmental Ltd, The Lodge, Essex Road, Hoddesdon EN11 0AT	Hazardous waste transfer
Unit 23 Monro Trading Estate	Neo Brothers Ltd, Unit 23 Monro Trading Estate, Station Approach, Waltham Cross EN8 7LX	End of Life Vehicle facility
Wharf Road, Wormley	H Dent & Sons, Wharf Road, Wormley EN10 6HE	Waste transfer station
Dacorum Borough		
Council Depot- Cupid Green	Dacorum Borough Council Depot, Redbourn Road, Hemel Hempstead HP2 7BA	District council depot and waste transfer station
Household Waste Recycling Centre, Berkhamsted	Household Waste Recycling Centre, Northbridge Road, Berkhamsted HP4 1EF	Household Waste Recycling Centre

Site Name	Site Address	Facility Type
Household Waste Recycling Centre, Cupid Green	Household Waste Recycling Centre, Eastman Way, Hemel Hempstead HP2 7DU	Household Waste Recycling Centre
Hemel Carbreakers, Cupid Green	Cupid Green Yard, Redbourn Road, Hemel Hempstead, Hertfordshire HP2 7AZ	Metal Recycling Site and End of Life Vehicle facility
Land at Mark Road	JF Bishop & Son, Bishops Yard, Bishops House, Mark Road, Hemel Hempstead HP2 7BW	Waste transfer station and depot (Certificate of Lawfulness)
Lodge Way, Chesham Road	Chesham Road, Tring, Wiggington HP23 6JE	Scrap metal and waste transfer station
Simply Recycling Hemel LTD	Unit 4, Hall Road, Maylands Wood Estate, Hemel Hempstead HP2 7BH	Metal recycling facility
Maxted Close, Hemel Hempstead	Holywell Haulage, 82 Maxted Close, Hemel Hempstead HP2 7DX	Covered waste transfer station and recycling centre
Sewage Treatment Works, Berkhamsted	STW Berkhamsted, London Road, Berkhamsted	Sewage Treatment Works
Sewage Treatment Works, Caddington	STW Caddington, Windmill Road, Markyate	Sewage Treatment Works
Sewage Treatment Works, Great Gaddesden	STW Great Gaddesden, Pipers Hill, Great Gaddesden	Sewage Treatment Works
Sewage Treatment Works, Markyate	STW Markyate, London Road, Markyate	Sewage Treatment Works
Sewage Treatments Works, Studham	STW Studham, Byslips Road, Dunstable	Sewage Treatment Works
Sewage Treatment Works, Tring	STW Tring, Ting Ford Road, Tring	Sewage Treatment Works
East Herts District		
Anstey Chalk Pit	Anstey Quarry Co. Ltd, Anstey Quarry, Buntingford, SG9 0BU	Extraction of chalk and inert waste recycling (permission expires on 30-6-2020)
Barley Croft Works	Janbor Limited (Pallets Unlimited) Barley Croft Works, Furneux Pelham, Buntingford SG9 0LL	Wood pallet shredding operation (district permission)
Bedwell Park Quarry	Bedwell Park Quarry, Bedwell Avenue, Essendon, AL9 6AA	Extraction of chalk

Site Name	Site Address	Facility Type
Buttermilk Hall Farm	Park 'N' Load, Buttermilk Hall Farm, Baldock Road, Buntingford, SG9 9RH	Waste transfer station
Calais Wood, Broxbourne	A.H. Nicholls & Sons Ltd, Etteridge Farm, Pembridge Lane, Broxbourne EN10 7QP	Physical Treatment Facility and waste transfer station
Carmageddon Salvage, Sawbridgeworth	Unit 5 Shingle Hall Farm, Parsonage Lane, Sawbridgeworth CM21 0LX	End of Life Vehicle facility
Cole Green Service Station	B & T Motor Salvage, Cole Green, Hertford SG14 2NL	End of Life Vehicle facility (district permission).
Household Waste Recycling Centre, Bishop's Stortford	Household Waste Recycling Centre, Dunmow Road, Bishop's Stortford CM23 5RG	Household Waste Recycling Centre
Household Waste Recycling Centre, Buntingford	Household Waste Recycling Centre, Watermill Industrial Estate, Buntingford SG9 9JS	Household Waste Recycling Centre
Household Waste Recycling Centre, Cole Green	Household Waste Recycling Centre, A414, Holwell SG14 2NL	Household Waste Recycling Centre
Household Waste Recycling Centre, Westmill	Household Waste Recycling Centre, Westmill Road, Ware SG14 0EL	Household Waste Recycling Centre
Hunsdon Skips Ltd	Fillets Farm, Hunsdon Road, Hunsdon SG12 8QA	Waste Transfer Station
Land off Birchall Lane	Eco Aggregates, Birchall Lane, Cole Green SG14 2NR	Inert waste recycling/soil washing facility (
Lower Hatfield Road/Skinners	Express Ashphalt, Lower Hatfield Road, Hertford, SG13 8LE	Inert waste recycling (Certificate of Lawfulness)
Maguire Yard	Plot 1B, Unit 1, Maguire Yard, Warrenwood Industrial Estate, Stapleford SG14 3NU	End of Life Vehicle facility
Pole Hole Quarry	Frank Lyons Plant Services, Gatehouse Green, Gransmore Green, Felstead, CM6 3LB	Sand & gravel quarry and inert landfill. Final restoration expected Autumn 2015
Rye Meads,	STW Rye Meads, Thames	Sewage Treatment

Site Name	Site Address	Facility Type
Stanstead Abbots	Water PLC, Stanstead Abbots, Ware, SG12 8JY	Works and Anaerobic Digester
Sewage treatment works Bramfield	STW Bramfield, Hollygrove Road, Bramfield	Sewage Treatment Works
Sewage treatment works Braughing	STW Braughing	Sewage Treatment Works
Sewage treatment works Brickendon	STW Brickendon, Fanshaws Lane, Brickendon	Sewage Treatment Works
Sewage treatment works Buntingford	STW Buntingford, Aspenden Road, Buntingford	Sewage Treatment Works
Sewage treatment works Chapmore End	STW Chapmore End, Tonwell, Chapmore End	Sewage Treatment Works
Sewage treatment works Cottered	STW Cottered, Stocking Hill, Cottered, Buntingford	Sewage Treatment Works
Sewage treatment works Dane End	STW Dane End, Munden Road, Ware	Sewage Treatment Works
Sewage treatment works Furneux Pelham	STW Furneux Pelham, Furneux Pelham, Buntingford	Sewage Treatment Works
Sewage treatment works Little Berkhamsted	STW Little Berkhamsted, Breach Lane, Little Berkhamsted	Sewage Treatment Works
Sewage treatment works Standon	STW Standon, Paper Mill Lane, Standon	Sewage Treatment Works
Sewage treatment works Widford	STW Widford, Pegs Lane, Ware	Sewage Treatment Works
Sunnyside, East Herts Council Depot	East Herts Council Depot, Baldock Road, Buntingford, SG9 9ER	District council depot
The Nurseries, Green Tye	Guy & Wright, The Nurseries, Green Tye, Much Hadham, SG10 6JJ	Green waste digester, tipping pad and silo to produce bio gas and digestate storage lagoon
Unit 25, Twyford Business Park	C&C Metal Trading and Raybould Metals &CO Unit 25, Twyford Business Park, London Road, Bishops Stortford CM23 3YT	Metal recycling facility
Ware Quarry Landfill Gas Plant	Ware Quarry, Westmill Road, Ware	Landfill gas plant
Waterhall Quarry (Bunker's Hill)	Bunkers Hill Pit, Water Hall Quarry, Lower Hatfield Road, Hertford, SG13 8LE	Inert landfill (permission expires on 31-12-2017)

Site Name	Site Address	Facility Type
Waterhall Quarry (Plant site)	SQ Environmental, Lower Hatfield Road, Hertford SG13 8LF	Materials Recovery Facility (linked to Bunkers Hill landfill) (permission expires on 31-12-2019).
Westmill Quarry	Cemex UK Ltd/Biffa Waste Services Ltd, Westmill, Ware, SG12 0ES	Sand & gravel quarry and municipal landfill (permission expires on 31-12-2017)
Westmill Quarry	Cemex UK Ltd/Biffa Waste Services Ltd, Westmill, Ware, SG12 0ES	Leachate treatment plant
Westmill Quarry	Cemex UK Ltd/Biffa Waste Services Ltd, Westmill, Ware, SG12 0ES	Soil Repair Centre (permission expires on 31-12-2017)
Hertsmere Borough		
Council Depot- Cranborne Road	Hertsmere Borough Council Depot, Cranborne Road, Potters Bar EN6 3JN	District council depot.
Coursers Farm	Agrivert Ltd, Coursers Farm, Coursers Road, St. Albans, Herts AL4 0PD	Anaerobic Digester
FMS Recovery Centre/Oakridge Lane	The Yard, Oakridge Lane, High Cross, Aldenham WD25 8BT	End of Life Vehicle facility
Household Waste Recycling Centre, Elstree	Household Waste Recycling Centre, Allum Lane, Elstree, Borehamwood WD6 3NL	Household Waste Recycling Centre
Household Waste Recycling Centre, Potters Bar	Household Waste Recycling Centre, Cranborne Road, Potters Bar EN6 3JN	Household Waste Recycling Centre
Land at Cranborne Road	Coley Ltd & Hurley Skip Hire, Unit 24, Cranborne Road Industrial Estate, Potters Bar EN6 3JN	Waste transfer station-biodegradable and non-biodegradable wastes
Land at Elstree Hill South	Reviva Composting Ltd, Land at Elstree Hill South, adjacent to A41 bypass, Elstree WD6 3BL	Open Windrow composting
Land at Redwell Wood Farm, Ridge	Agrivert Ltd, Redwell Wood Farm, Ridge, Potters Bar, EN6 3NA	In-vessel composting (permission expires on 31-12-2034)
Sewage Treatment Works, Blackbirds Lane	Thames Water PLC, Oakridge Lane, Aldenham, Watford WD25 8BT	Sewage Treatment Works
Sewage Treatment	STW Shenley, Mimms Lane,	Sewage Treatment

Site Name	Site Address	Facility Type
Works, Shenley	Ridge, Potters Bar, EN6 3LY	Works
Tythenhanger Quarry	Tarmac Ltd, Courser's Road, Colney Heath, St. Albans AL4 0PF	Sand & gravel quarry and inert landfill (permission expires on 31-12-2032)
Warren Fields, Houndwood Farm	Warren Fields, Part of Houndwood Farm, Harper Lane, Radlett WD7 7HU	Storage, shredding and composting of green waste (Certificate of lawfulness)
North Herts District		
5 Hunting Gate	Winters Haulage, 5 Hunting Gate, Hitchin, SG4 0TJ	Materials Recycling Facility
Codicote Quarry	Codicote Quarry Ltd, Codicote Quarry, St. Albans Road, Codicote, Hitchin SG4 8SP	Chalk quarry and waste treatment facility (permission expires on 21-2-2042)
Cumberlow Green Farm	Cumberlow's, Cumberlow Green Farm, Nr. Buntingford SG9 0QD	Composting
Dog Kennel Farm	TOC Recycling Ltd, Dog Kennel Farm, Lilley Bottom, Lilley, Luton LU2 8LQ	Metal Recycling and End of Life Vehicle Facility
Eagles, Unit 5	Eco Waste and Recycling, Eagles, 5, Hullocks Pit Hill, Newnham, Baldock, SG7 5JX	Waste Transfer Station
Electronic Waste Recycling Ltd	Units 1 & 2 Woodside Ind Park, Works Road, Letchworth SG6 1LA	WEEE treatment facility (district permission)
Goodwins Yard, Bury Mead Road	Shanks Hitchin Waste Transfer Station, 46 Burymead Road, Hitchin SG5 1RT	Waste Transfer Station
H Williams & Sons Ltd	Metal and Waste Recycling Ltd, Wallace Way, Hitchin, SG4 0SE	Metal Recycling and WEEE Treatment facility and End of Life Vehicle facility
Hitchin Sludge Treatment Centre	Hitchin Sludge Treatment Centre, Cadwell Crossing, Hitchin	Sewage Treatment Works
Household Waste Recycling Centre, Letchworth	Household Waste Recycling Centre, Blackhorse Road, Letchworth Garden City, SG6 1HB	Household Waste Recycling Centre
Household Waste Recycling Centre,	Household Waste Recycling Centre, Beverley Close, York	Household Waste Recycling Centre

Site Name	Site Address	Facility Type
Royston	Way, Royston SG8 5HF	
Land adjacent to the B197, North of Graveley	Envirowaste (Inc) Ltd/ Stevenage Skip Hire Ltd, Jack's Hill, Great North Road, Hitchin SG4 7EQ	Waste transfer & recycling facility
Land at Bygrave Lodge	Biogen (UK) Ltd, Land at Bygrave Lodge Farm, Nr Baldock, SG7 6QX	Anaerobic Digester
Land at Harkness Hall, Hitchin	Harkness Hall, Thistley Lane, Gosmore, Hitchin SH4 7QU	Incinerator for the burning of waste timber and plant material.
Rail Depot, Hitchin	Cemex UK, Rail Depot, Walsworth Road, Hitchin, SG4 9UL	Metal waste transfer station/rail aggregates depot.
Rush Green Motors (workshop)	Rush Green Motors, London Road, Langley, Hitchin, SG4 7PQ	End of Life Vehicle facility
S B Wheeler & Sons Ltd	Nationwide Metal Recycling Ltd, Cadwell Lane, Hitchin SG4 0SA	Metal Recycling and End of Life Vehicle facility
Sewage treatment works Ashbrook	STW Ashbrook, Ashbrook, St Ippolyts	Sewage Treatment Works
Sewage treatment works and water recycling centre, Ashwell	Ashwell Water Recycling Centre, off Common Lane, Near Ashwell SG7 5JE	Sewage Treatment Works
Sewage treatment works Barkway	STW Barkway, Nuthampstead Road, Barkway, Royston	Sewage Treatment Works
Sewage treatment works Barley	STW Barley, East of Cambridge Road, Barley	Sewage Treatment Works
Sewage treatment works Breachwood Green	STW Breachwood Green, Lower Road, Breachwood Green	Sewage Treatment Works
Sewage treatment works Hexton	STW Hexton	Sewage Treatment Works
Sewage treatment works Hitchin	STW Hitchin, Burymead Road, Hitchin	Sewage Treatment Works
Sewage treatment works Holwell	STW Holwell	Sewage Treatment Works
Sewage treatment works Kimpton Road	STW Kimpton Road, Codicote, Hitchin	Sewage Treatment Works
Sewage treatment works Letchworth	STW Letchworth, Stotfold Road, Letchworth	Sewage Treatment Works
Sewage treatment	STW Newnham	Sewage Treatment

Site Name	Site Address	Facility Type
works Newnham		Works
Sewage treatment works Sandon	STW Sandon	Sewage Treatment Works
Sewage treatment works Westone	STW Westone, Halls Green, Westone	Sewage Treatment Works
Sewage treatment works Whitwell	STW Whitwell, Codicote Road, Hitchin SG4 8AB	Sewage Treatment Works
The New Barn J10 A1(M)	Veolia Environmental Services, The New Barn, Radwell, Baldock, SG7 5EW	Recyclables bulking facility.
Vaux Spares Limited	Ashwell and Morden Station Goods Yard, Station Road, Odsey, Baldock, Herts, SG7 5RT	End of Life Vehicle facility
St Albans City & District		
Acrewood Way waste station & depot	Pearce Recycling Group Ltd, Acrewood Way, St Albans AL4 0JZ	Processing and bulking of recyclables, including wood, paper, cardboard, compiled plastics and glass
Appspound Lane	Wood Recycling Services Ltd, Appspound Lane, Potters Crouch, St Albans AL2 3NL	Manure and green waste Composting/wood chipping
Council depot-St Albans	Ameycespa Ltd, Sandridge Gate Business Centre, Ronsons Way, St Albans AL4 9XR	District council depot and waste transfer station
Harper Lane (rail loop)	Tarmac Ltd, Harper Lane, Radlett, WD7 7HX	Open air materials recovery facility, coated stone plant, RMC and recycling of asphalt planings
Harper Lodge Farm	Ground Waste Recycling Ltd, Yard 13, Harper Lane, Radlett, WD7 7HU	Waste Transfer Station
Hatfield Quarry	Cemex UK Materials Ltd, Hatfield Quarry, Oaklands Lane, St Albans AL4 0HS	Leachate treatment plant
Household Waste Recycling Centre Harpenden	Household Waste Recycling Centre, Grove Road, Harpenden, AL5 1PX	Household Waste Recycling Centre
Household Waste Recycling Centre St Albans	Household Waste Recycling Centre, Ronsons Way, Sandridge, St Albans AL4	Household Waste Recycling Centre

Site Name	Site Address	Facility Type
	9QT	
Redbournbury Special Waste Site	Veolia UK Ltd, Redbourn Road, St Albans AL3 6RP	Special waste transfer facility
Sewage treatment works Harpenden	STW Harpenden, Piggottshill Lane, Harpenden, AL5 5UN	Sewage Treatment Works
Sewage treatment works Wheathampstead	STW Wheathampstead, Meads Lane, Wheathampstead	Sewage Treatment Works
Veolia Depot	Veolia Depot, Acrewood Way, St Albans, AL4 OJY	Waste Transfer Station
Stevenage Borough		
Alchemy Metals Ltd	Alchemy Metals Ltd, Cavendish Point, Cavendish Road, Stevenage, Herts, SG1 2EU	Metal Recycling Facility
Avc Stevenage	Avc House, Bessemer Drive, Stevenage, SG1 2DT	WEEE Treatment Facility
Council Depot- Stevenage	Stevenage Borough Council Depot, Cavendish Road, Stevenage, Herts SG1 2ET	District council depot and End of Life Vehicle facility
Hertfordshire Skip Hire Ltd	102 Leyden Road, Stevenage, Herts SG1 2BP	Waste transfer facility for hazardous/difficult wastes
Household Waste Recycling Centre Stevenage	Household Waste Recycling Centre, Caxton Way, Stevenage, Herts SG1 2UR	Household Waste Recycling Centre
Langley Sidings	Tarmac Ltd, London Road, Stevenage, Herts SG1 1XF	Rail Aggregates Depot
Biffa Waste Services Ltd	Land off Leyden Road, Stevenage, Herts SG1 2BW	Waste transfer for hazardous/difficult wastes
Stevenage Scrap Metal	Unit 15, Parsons Green Estate, Boulton Rd, Stevenage SG1 4QG	Metal Recycling
Ultratec Ltd Stevenage	Ultratec House, Unit 1, Stevenage Business Park, Eastman Way, Stevenage, SG1 4SZ	WEEE treatment facility
Three Rivers District		
ASM Metal Recycling Centre	ASM Metal Recycling Centre, Railway Terrace, Kings Langley, WD4 8JE	Metal recycling facility and Vehicle Depollution Facility

Site Name	Site Address	Facility Type
Blackbirds Farm	Blackbirds Lane, Aldenham, Watford, WD25 8BS	Green waste composting
Great Westwood Quarry	Cemex UK Ltd, Great Westwood Quarry, Fir Hill, Chandlers Cross, Watford, Herts WD3 4LY	Inert landfill (permission expires on 11-04-2015). Current application seeking extension to August 2015, decision pending withdrawal of EA objection.
Household Waste Recycling Centre Rickmansworth	Household Waste Recycling Centre, Riverside Drive, Rickmansworth, Herts WD3 1FS	Household Waste Recycling Centre
Household Waste Recycling Centre Waterdale	Household Waste Recycling Centre, St. Albans Road, Watford, WD25 0PR	Household Waste Recycling Centre
Langley Wharf, Kings Langley	Associated Asbestos Removal Ltd. Railway Terrace, WD4 8JE	Asbestos removal and management services
Maple Lodge Sewage Treatment Works	Thames Water PLC, Denham Way, Maple Lodge, Rickmansworth, WD3 9SQ	Sewage Treatment Works and biological treatment facility
Waterdale	Waterdale Waste Transfer Station, St. Albans Road, Watford, WD25 0PR	Waste Transfer Station and tipping hall for recyclables
Watford Borough		
275 Sheepcot Lane	Green Resource Recycling Ltd, 275 Sheepcot Lane, Watford, WD25 7DL	WEEE and Waste Transfer Station
Colne Way	Pink Skips, Colne Way Industrial, Estate, Watford, WD25 9WY	Waste Transfer Station and recycling facility
Council depot- Watford	Watford Borough Council, Wigenhall Road, Watford, WD18 0FB	District council depot and Waste Transfer Station for road sweepings
Orphanage Road Rail Aggregates Depot	London Concrete Ltd, Imperial Way Watford, WD24 4PP	Rail Aggregates Depot
Welwyn Hatfield Borough		
34 Burrowfields	The Honeywagon Co., Burrowfield, Welwyn Garden City, AL7 4SR	Hazardous waste treatment facility
Burnside (BP Mitchell Ltd)	BP Mitchell Haulage Contractors Ltd, Hertford	Waste Transfer Station and concrete batching

Site Name	Site Address	Facility Type
	Road, Hatfield AL9 5RB	plant.
Burnside (Peter Brother's Ltd)	Peter Brother's Hertford Road, Hatfield AL9 5RB	Recycling of builder's waste.
Cattlegate Farm	D Williams and Co. Cattlegate Farm, Cattlegate Road, Enfield	Composting facility and Anaerobic Digester
Chas Storer, Potters Bar	Chas Storer Ltd, Coopers Lane, Northaw, Potters Bar, EN6 4NE	Sorting and bailing of plastics, paper and cardboard
Sewage treatment works Hatfield	Thames Water PLC, Hertford Road, Hatfield, AL9 5PE	Sewage Treatment Works
Sewage treatment works Mill Green	STW Mill Green, Mill Green, Hatfield AL9 5PD	Sewage Treatment Works
Tewin Road Depot	Serco Local Government, Tewin Road, Welwyn Garden City, AL7 1BD	District council depot and Waste Transfer Station
Unit 2 Alpha Business Park	Sovchem Metal Waste Reclamation, Travellers Lane, North Mymms, Hatfield AL9 7HF	Metal recycling facility
Welwyn Garden City Metals Ltd	Welwyn Garden City Metals Ltd, Tewin Road, Welwyn Garden City, AL7 1BD	End of life vehicle facility and scrap metal recycling.

Appendix 3: Mineral Applications Determined from 1 April 2016 to 31 March 2017 (in date order)

Mineral Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
Pynesfield, off Tilehouse Lane, Maple Cross, Rickmansworth, Hertfordshire	Harleyford Aggregates Ltd	Three Rivers District Council	8/1254-15	Application for mineral extraction, processing and importation of sand and gravel and reclamation materials for Denham Park Farm with restoration to agriculture and a small wetland area	Application refused on 29-Jun-2016 But was later Approved (allowed on appeal with conditions) on 18 –Jan-2017)	MLP 1,2,3,4,5,9,11,12,13,14,16,17,18	350,000-400,000 tonnes of sand and gravel extraction

Dog Kennel Farm, Charlton Road, Hitchin, SG5 2AB	Mr William Taylor	North Herts	1/2975-16	Application for the proposed importation of 53258 Tonnes of Inert Waste soils for the construction of a soil shelf around on-site business units AT Dog Kennel Farm	Refused 23- Feb-2017	MLP 2,14 WCS 1,4,6,11,15,16,18,19	N/A
Tythenhanger Quarry, North Orbital Road, Colney Heath, St Albans AL2 1BT	Mr George Longmuir	Hertsmere Borough Council	0/2197-16	Proposed temporary planning permission for a topsoil manufacturing facility using as-raised mineral from Tythenhanger Quarry and PAS 100 QP compost	Approved 10 -March -2017	MLP 7,8,9,11,12,16,18	50,000 tonnes of topsoil manufactured per annum until end of 2020
Land at Ware Park, Wadesmill Road, Hertford	Mr Douglas Symes	East Herts	3/0770-16	Application for the phased extraction of sand and gravel, use of mobile dry screening plant, creation of stockpile area, weighbridge, wheel cleaning facilities, ancillary site offices, together with construction of a new access onto Wadesmill Road and phased restoration of landscape farmland at a	Refused 24 - March -2017	MLP 3,12,13,17,18	N/A

				lower level.			
--	--	--	--	--------------	--	--	--

Appendix 4: Waste Applications Determined from 1 April 2016 to 31 March 2017 (in date order)

Waste Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
Unit 5, Hullockpit Hill, Newnham, Baldock SG7 5JX	Ms Sophie Meissner	North Herts	1/0024-15	Application for proposed variation of condition 6 (no outside storage of waste) on permission 1/1248-09 to allow for the outside storage of waste	Approved 21-Apr-2016	WCS 1,1A,6,7,11,16,WSA2	N/A
Land at Veolia's Acrewood Way Waste Transfer Station, St. Albans	Veolia ES Ltd	St Albans	5/0828-16	Proposed demolition of two existing waste transfer buildings and erection of two replacement and one new waste transfer buildings	Approved 26-Apr-2016	WCS 1,1A,11,12,13, 16,WSA2	A further 19,000 tonnes of material will be handled on site per annum
Waterford Landfill Site, Bramfield Lane,	Mr Brendan Mitchell	East Herts	3/0649-16	Proposed application for the variation of condition 5 (Time limit for completion) and condition 7 (Vehicle	Approved 31-May-2016	WCS 1A,4,6,11,13,15,	N/A

Waste Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
Waterford, Hertford, Hertfordshire SG14 2QE				movements) on permission 3/0518-11 to extend the time limit to 13/09/16 and increase vehicle movements to 48 (24 in and 24 out)		16	
Dyrham Park Golf & Country Club, Galley Lane, Barnet EN5 4RA	Dyrham Park	Hertsmere Borough Council	0/0462-16	Proposed application for the variation of condition 3 of permission 0/2529-10 to permit completion of the entirety of former defined phase 2, consequent upon already certified completion of the former defined phase 1, including the re-grading of materials existing on site and importation of supplementary materials	Refused 31-May-2016	WCS 1A,4,6,13,15,16	N/A
Waterhall Farm Bayfordbury	Mrs Judy Lyons	East Herts	3/0927-16	Planning application for the variation of condition 71, the pre-settlement contours is being sought to regularise the tipped contours on site and	Refused 15-Jun-2016	MLP 12,13,15 WCS	N/A

Waste Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
				also to provide details on the landscaping restoration and after use to reflect the new contours and to discharge condition 73		4,6,11	
Chadwell Springs Golf Club, Hertford Road, Ware, Hertfordshire, SG12 9LE	McMullen & Sons Ltd	East Herts	3/0225-16	Proposed variation of condition 2 of planning permission 3/1210-12 for amendments to remodelling proposed around holes 5 and 6 due to removal of unstable Leylandii Cypress trees, minor revisions to tees on the academy course and targets on the driving range, improvements to drainage system involving an extended drainage channel, provision of infiltration basin and enlargement of approved infiltration basin	Approved 08-Jul-2016	WCS 1A,2,4,6,7,9,11, 13,16,	46,000m ³ inert (equivalent to 59,800 – 73,600 tonnes per Anum)
Rye Meads	Thames	East Herts	3/1493-16	Application for the variation of	Approved	None (District	N/A

Waste Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
Sewage Works, Rye Meads Sewage Treatment Works, Rye Road, Stanstead Abbots, Hertfordshire, SG12 8JY	Water Utilities Ltd			condition 2 (Approved Plans) on permission 3/2475-15 to change the dimensions of the Primary De-Sludge MCC Kiosk	01-Aug-2016	Policies and NPPF only)	
Holywell Haulage, 82 Maxted Close, Hemel Hempstead, Hertfordshire HP2 7DX	Mr Eamon Cullen	Dacorum Borough Council	4/0650-16	Application for the proposed consolidation of existing waste recycling operations and external ancillary works	Approved 08-Sep-2016	WCS 1,1A,11,12,16,WSA2	N/A
Letchworth Water	Miss Angela Richardson	North Herts	1/1796-16	Proposed application for the erection of two glass reinforced plastic kiosks to	Approved 07-Oct-2016	None (District policies and NPPF	N/A

Waste Planning Applications Determined from 1 April 2016 to 31 March 2017 (in date order)							
Site Name	Operator/ Applicant	District	Reference Number	Description	Decision	Policies Used	Additional Capacity (tonnes per year)
Recycling Centre, Stotfold Road, Letchworth SG6 4JR		District Council		house electrical control equipment within the existing boundary of Letchworth Water Recycling Centre		only)	
Waterdale Waste Transfer Station, St Albans Road, Garston, Watford, Hertfordshire	Ms Jacqueline Nixon	Three Rivers District Council	PL\0809\16	Application for the proposed erection of a water tank and pump house	Approved 23-Dec-2016	WCS 1A,6,11,12	N/A

HERTFORDSHIRE COUNTY COUNCIL**ENVIRONMENT, PLANNING & TRANSPORT CABINET PANEL
THURSDAY, 7 SEPTEMBER 2017 AT 10:00AM****ENVIRONMENT, PLANNING & TRANSPORT PERFORMANCE MONITOR***Report of the Chief Executive & Director of Environment*

Author: Simon Aries, Assistant Director Transport, Waste & Environmental Management (Tel: 01992 555255)
Jan Hayes-Griffin, Assistant Director Planning & Economy (Tel: 01992 555203)

Executive Member: Derrick Ashley, Environment, Planning & Transport

1. Purpose of report

- 1.1 To allow the Panel to review the performance of Environment, Planning and Transport for the first quarter of this year (April - June 2017) against the Environment Department Service Plan 2016-2020 including key performance indicators, major projects, contracts and identified risks.

2. Summary

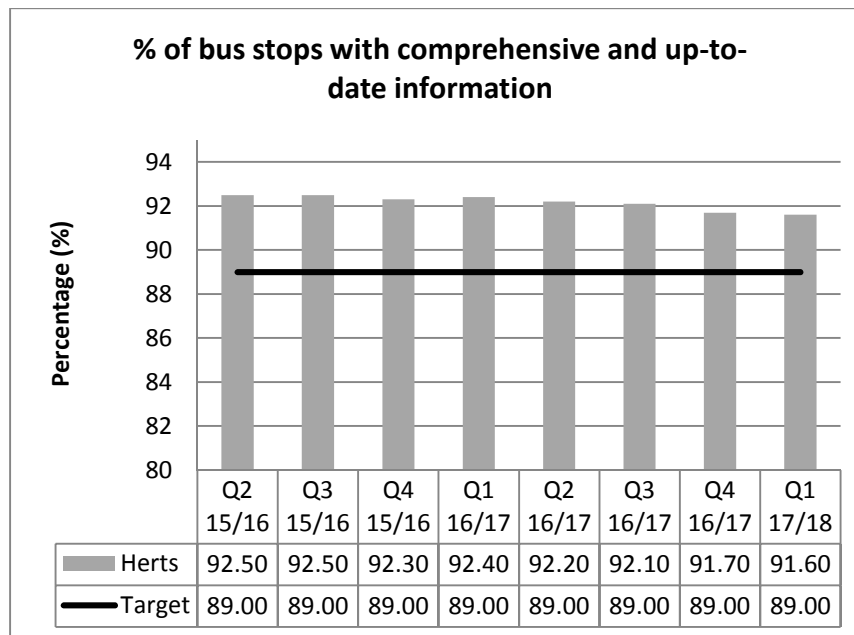
- 2.1 The Cabinet Panel receives a suite of Annual Performance Reports including:
- Local Transport Plan (LTP) – Annual Performance Report (APR) (Q4 or Q1 depending on external data from Government and other sources).
 - TD APR – Traffic and Data Annual Performance Report

3. Recommendation

- 3.1 The Cabinet Panel is invited to note the report and comment on the performance monitor for Quarter 1 2017-18.

4. Strategic Performance Indicators, Contracts and Projects

4.1 % of bus stops with comprehensive and up-to-date information



4.1.1 Total number of Marked Hertfordshire Stops - 4306

Total number of Marked Hertfordshire Stops with timetable frames attached to the bus stop pole or shelter containing printed timetables/departures from that stop - 3943

4.1.2 Performance has maintained its high level above target. The number of stops with information has remained static. In general, we are continually aiming to install timetables where they are not present, though some stops are difficult due to the bus stops being formed from lamp columns of a design that does not facilitate attaching a timetable frame, or other constraints. For passengers with smart-phones or other devices the Intalink App and website provide an alternative method to accessing timetable information.

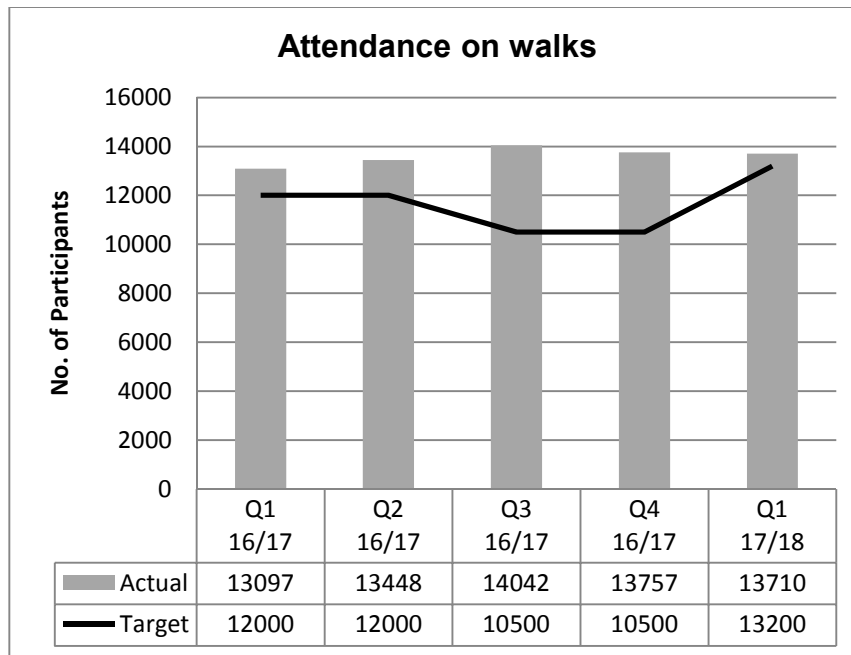
4.2 Hertfordshire Health Walks

4.2.1 Hertfordshire Health Walks (HHW) is a countywide initiative of free, volunteer led walks and is coordinated by Countryside Management Service (CMS). HHW promotes walking and encourages more people (all ages, backgrounds and abilities) to get outdoors, get more active and reap the benefits.

The target levels for 'Walks Participation' and 'Walks Led' were set at the start of the financial year. They are notably lower in the quarters where the autumn and winter months fall as past experience has shown that walk leaders and the walkers themselves are reluctant to lead or participate in walks when the weather is inclement and day light hours diminish. Increases in both are linked to activity to recruit more

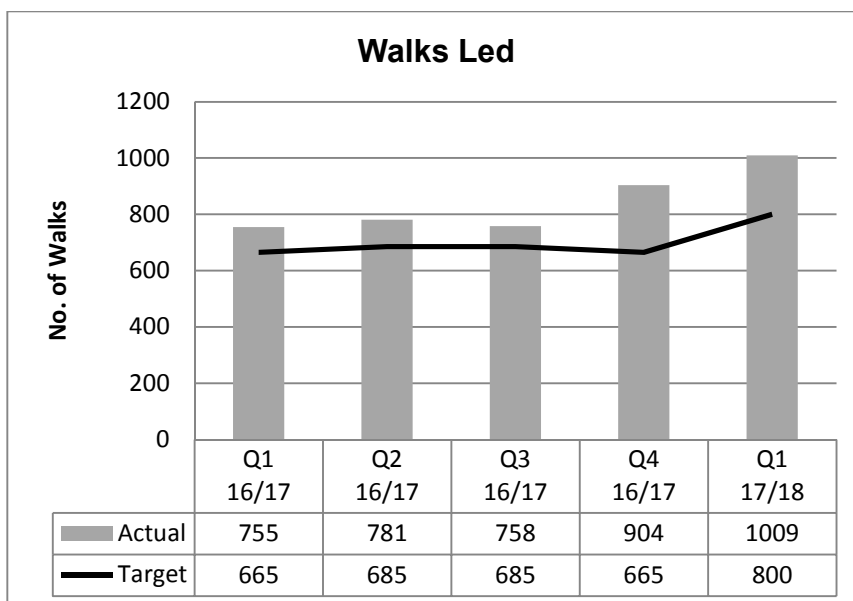
volunteers and deliver more walks in key locations. The target is to be reconsidered for 2017/18.

4.2.2 Walks Participation



CMS achieved a very good outcome for Q1 with 13,710 attendances on the Health Walks. Whilst this exceeds the target of 13,200, the focus for much of CMS promotional activity in the past quarter has been on attracting participants for whom the walks will have most impact i.e. the least active or those currently or at risk of suffering from one or more long-term health issue.

4.2.3 Walks Led



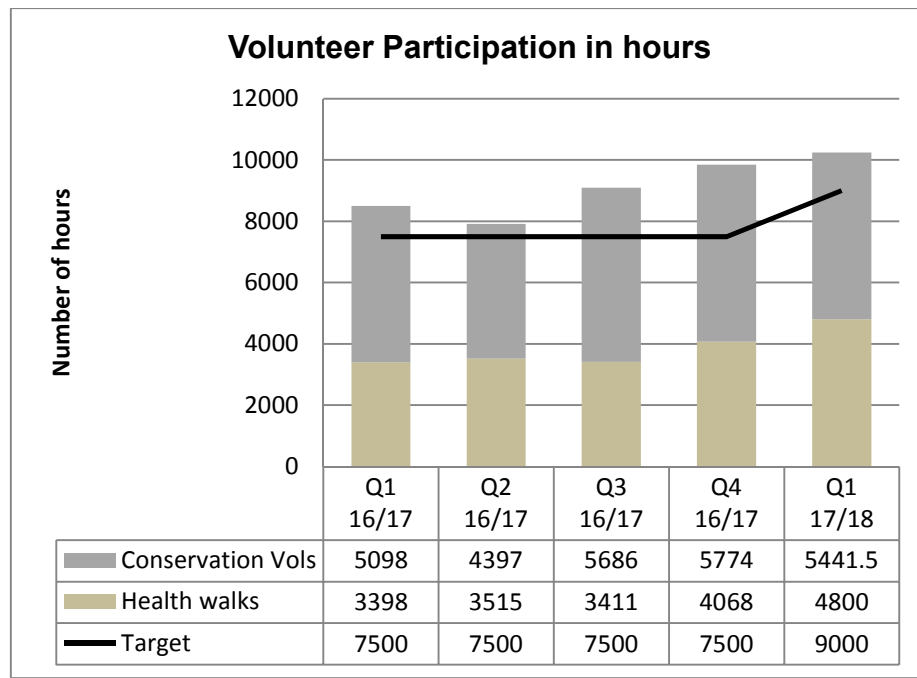
For Q1, 1,009 Health walks were delivered against a target of 800 which is an improvement on the previous quarter. The increase in number of walks led in this quarter compared to the previous is due to a number of factors:

- CMS has offered additional First Steps/Grade 1 walks delivered through partnership working with Patient Participation Groups (PPGs) and the mental health charity MIND
- CMS has changed the way that some walks are recorded – those offering slower/short cut options were counted as 1 walk but are now recorded as 2.

4.3 Countryside Management Service Volunteer Participation

4.3.1 Countryside Management Service engages volunteers in all aspects of its activity through a variety of opportunities. Volunteers lead Health Walks, deliver environmental improvements in and improve access through green space including Hertfordshire’s Rights of Way and lead guided walks that raise awareness of the local environment. CMS has been awarded the national Investing in Volunteers Standard for its work supporting volunteers.

4.3.2 Volunteer Hours



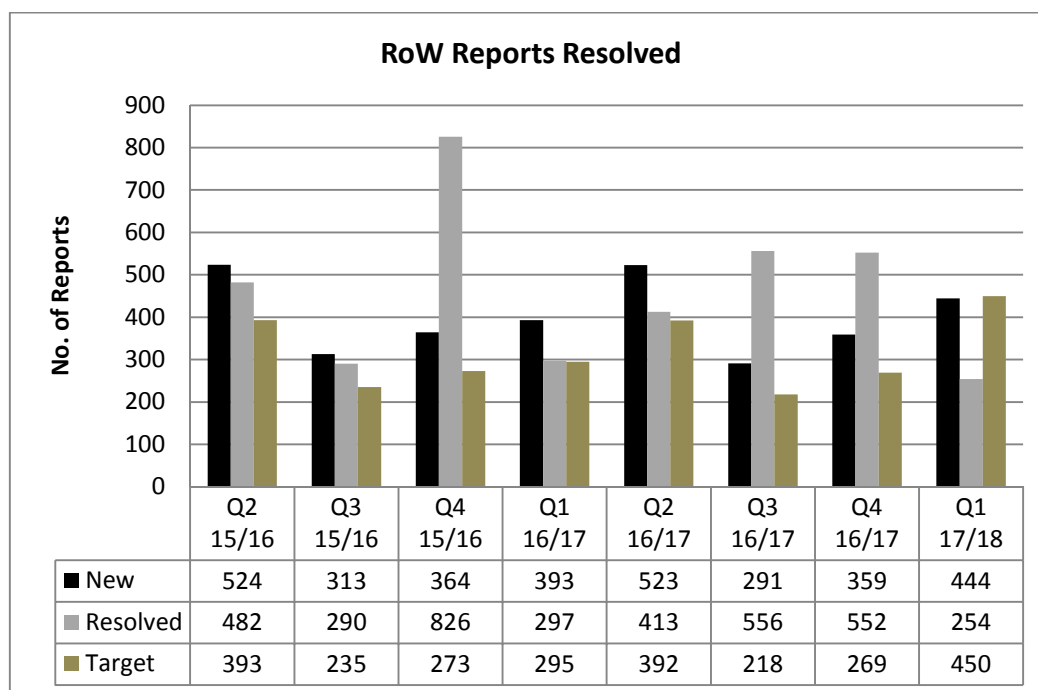
4.3.3 There were 4,800 and 5,441.5 volunteering hours committed to the Health Walks and conservation volunteering respectively. The increase in volunteering hours for Health Walks was due to a volunteer recruitment drive earlier in the year, an increase in the number of walks and the associated administration.

4.3.4 Volunteers in the new role of Rights of Way surveyor became active in Q1. As a result, there was a total of 10,241.5 volunteering hours in this quarter which surpassed the target 9,000 hours.

4.4 Project Income Secured from Sources External to the CMS

4.4.1 Countryside Management Service prepares plans that set out how green space is to be enhanced for people and for wildlife. These plans are used to engage local communities in decision making as well as forming the basis to recruit external funding to enable the actions set out within. Small scale external funding is also secured to expand coverage of Hertfordshire Health Walks and enable volunteering activity in the environment. To date £261,000 has been secured from external sources this year to enable the delivery of these land management plans and other CMS activity including: £80k of S106 funding for river restoration in a Hertsmere park, £10k for improving access on RoW and greenspace in Hertford and a further £6k for a feasibility study looking at flood management and chalk river restoration in Rickmansworth.

4.5 Resolve a minimum of 1,800 of reports received about the rights of way network each year.

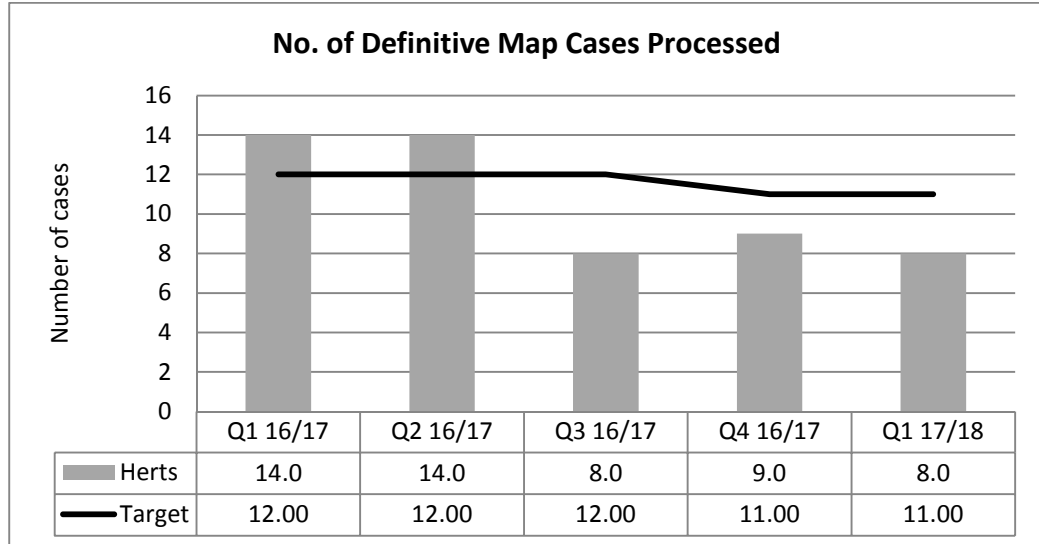


4.5.1 This indicator was previously known as “We will aim to deal with and resolve 75% of reports received about the rights of way network each year” but has undergone revision to reflect clearer outcomes. For instance, there is now a fixed quarterly target of 450.

4.5.2 This quarter is lower as officers have received and logged many overgrown vegetation reports, resulting from the recent swift growth.

As the annual mowing & clearance contract gets fully underway all these reports should be resolved.

4.6 The number of decisions & orders made and public inquiries held for definitive map cases each year.



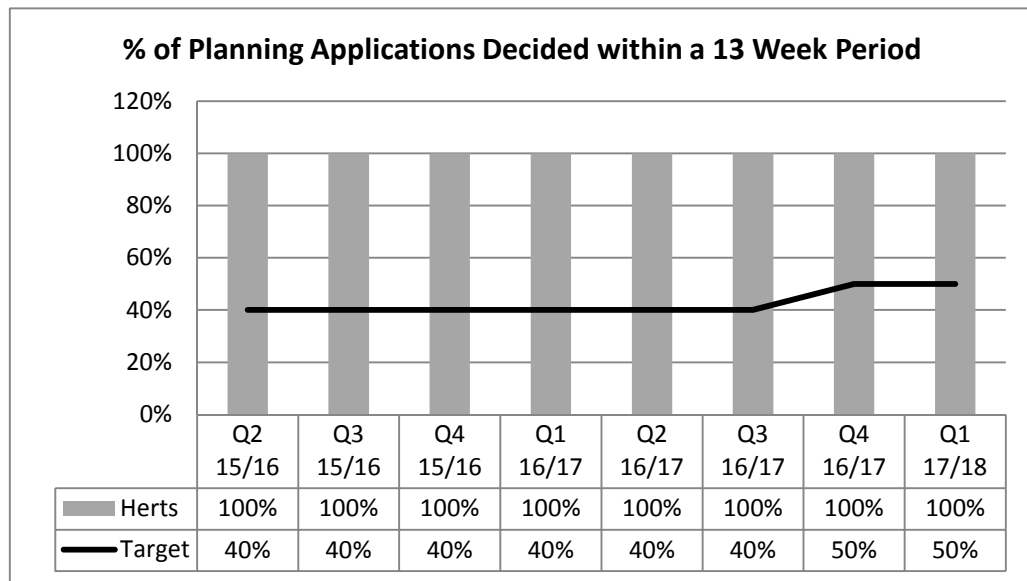
4.6.1 This year’s first quarter is lower than the previous quarter as well as the same period last year, which reflects fluctuations in case progress through a year from delays due to external influences. There are currently 3 cases which have required more than one decision meeting, due either to the complexity of the cases and the quantity of evidence that needs to be assessed, and on-going negotiations for dedication of the route with the landowner. These have therefore not been counted, as a decision has not yet been reached this quarter.

4.6.2 This quarter’s outcome has been achieved during a period when Legal support has been reduced (due to a higher turnover of lawyers) and extra Legal support has had to be bought-in directly by RoW, to maintain customer service levels.

4.7 The length of the rights of way network that is easy to use

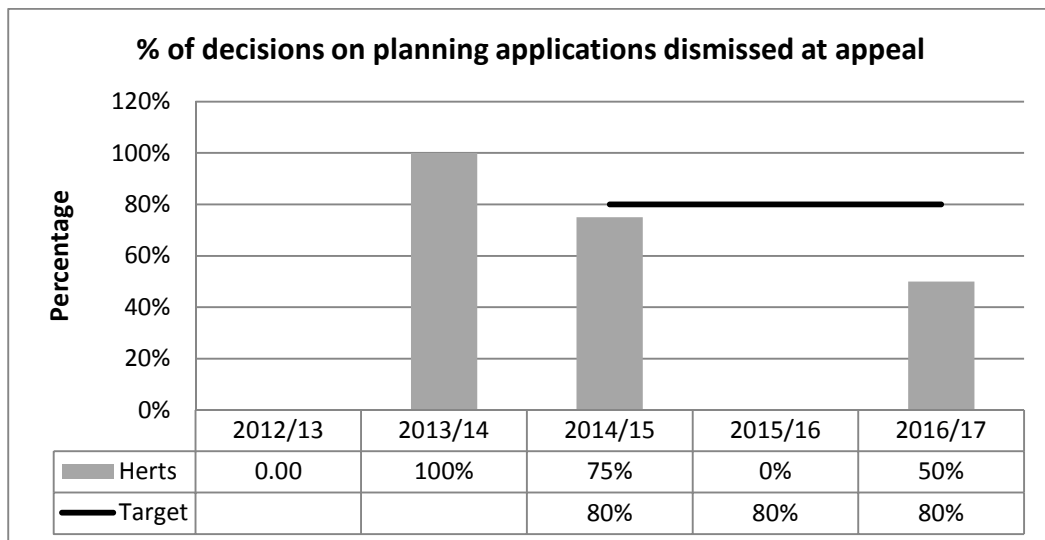
4.7.1 The Herts Countryside Management Service have engaged volunteers to carry out the surveys in 2017, saving valuable officer time. The survey is ongoing and this indicator will be updated as soon as the data has been collected.

4.8 The timeliness of decisions for all County Matter planning applications



4.8.1 In Q1, our performance was 100% or 2 out of 2. Both applications were determined within the statutory 13 week period, with no need for an extension of time. Both applications were determined under delegated powers, rather than by the Development Control Committee.

4.9 Percentage of decisions on planning applications dismissed at appeal



4.9.1 There were two appeals against the refusal of planning permission which were subsequently determined in the reporting period 1 April 2016 to 31 March 2017. The appeal at Radwell Bury Farm was dismissed, and the county council's decision was upheld. The appeal at Pynesfield was allowed; the Officer's recommendation for approval

was overturned by the Development Control Committee who refused the application. The Planning Inspector granted planning permission.

5. Risks

5.1 Environment, Planning and Transport has 1 corporate level risk and it is as follows:

5.2 Tree Health (Risk ENV0142)

5.2.1 Due to the threat of an increasing number of tree pests and diseases, in particular the threat from Ash Dieback, there is a risk of a significant number of trees being affected which may result in significant unplanned costs, potential dangers to the public and/or service users, impacts on the landscape and loss of biodiversity.

5.2.2 The risk to Hertfordshire's trees from Ash Dieback and other tree health issues is likely to be long-term. With Controls progressing well and more known about the spread of the disease it is felt that the Impact of the risk in any one year can be reduced to (4) Medium. The Likelihood of the tree health issues having an impact in the county remains (5) High. As such the current score for the Tree Health Risk in any one year is (20) Medium.

6. Financial Implications

6.1 There are no financial implications arising from this report.

7. Internal Audit

7.1 There were no internal audits in Q1.

8. Equalities Implications

8.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equality implications of the decision that they are making.

8.2 Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EQiA) produced by officers.

8.3 The Equality Act 2010 requires the County Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant

protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.

- 8.4** No equality implications have been identified in relation to this report although Panel will not make a decision in respect of its contents.

Background Information

None.

HERTFORDSHIRE COUNTY COUNCIL**ENVIRONMENT, PLANNING AND TRANSPORT CABINET PANEL****THURSDAY, 7 SEPTEMBER 2017 AT 10:00 AM****PRELIMINARY FLOOD RISK ASSESSMENT REVIEW****Report of the Chief Executive and Director of Environment**

Authors: Charlotte Kemp, Senior Flood Risk Officer,
Tel: 01992 556791.
Andy Hardstaff, Flood Risk Management Team Leader,
Tel: 01992 556470.

Executive Member: Derrick Ashley, Executive Member for Environment,
Planning and Transport.

1. Purpose of report

- 1.1. To advise the Panel of the statutory Preliminary Flood Risk Assessment review undertaken by the County Council in its capacity as the Lead Local Flood Authority for Hertfordshire.
- 1.2. To seek the Panel's endorsement of the findings in the Preliminary Flood Risk Assessment review prior to its final submission to the Environment Agency.

2. Summary

- 2.1. The County Council is required under the Flood Risk Regulations 2009 to produce a Preliminary Flood Risk Assessment and to review it every six years. The purpose of this assessment is to identify areas of significant flood risk. If areas are identified, known as Flood Risk Areas, a Flood Risk Management Plan must be produced, detailing measures and actions to reduce this risk. The County Council submitted its first Preliminary Flood Risk Assessment in 2011 and is now required to review it.
- 2.2. At the start of the review process, the Environment Agency provided national indicative Flood Risk Areas and issued guidance to all lead local flood authorities to help with the review process. The timetable for the 2017 review was issued to the County Council in late January 2017 with further Question and Answer documents provided in March, April and May 2017. The Environment Agency stated how each lead local flood authority should decide its own internal approval process for the review. It was agreed that it was important to get the Preliminary Flood Risk Assessment endorsed by the relevant Panel and the Environment

Agency agreed that each lead local flood authority could submit the final, approved assessment review in due course, prior to the deadline for the Environment Agency to report to the European Commission.

- 2.3. A Preliminary Flood Risk Assessment assesses flood risk using the best available information at the time it is produced. The review undertaken by the County Council covers surface water flooding, groundwater flooding and flooding from ordinary watercourses. The Environment Agency does not produce a Preliminary Flood Risk Assessment as they continue to use their existing processes to map and plan for flooding from main rivers, the sea and reservoirs across England. These processes ensure the Environment Agency meet the requirements of the Floods Directive, which they are able to do under the transitional arrangements.¹
- 2.4. Based on information provided nationally and data the County Council has gathered since the first assessment in 2011, there is no evidence to suggest that any Flood Risk Areas needed to be identified in Hertfordshire.
- 2.5. The Environment Agency will collate all the submissions from the current review and report the national position to the European Commission by the required deadline of 22 December 2017. Where possible, all reported material will be made publically available.

3. Recommendation

- 3.1. That the Panel endorse the Preliminary Flood Risk Assessment review, included as Appendix 1 to this report, to be submitted to the Environment Agency.

4. Background

- 4.1. The EU Floods Directive 2007 was adopted into domestic legislation in 2009 through the Flood Risk Regulations. The production and review of Preliminary Flood Risk Assessments are a requirement of the Regulations.
- 4.2. The Regulations state that each element of a Preliminary Flood Risk Assessment must be reviewed every 6 years; the 2017 review is the second cycle and the first overall review in England and Wales. The Regulations and EU Floods Directive provide a framework for managing flood risk, and it is the following elements that must be reviewed:
 - Preliminary Flood Risk Assessment;

¹ The Environment Agency, source: <http://webarchive.nationalarchives.gov.uk/20140328094434/http://www.environment-agency.gov.uk/research/planning/135491.aspx> (accessed 14/08/2017)

- Identification of areas of potential significant risk, referred to as Flood Risk Areas;
 - Mapping of flood hazards and risk and;
 - Flood Risk Management Plans, setting out measures and actions to reduce the risk.²
- 4.3. For both the first (2011) and this (2017) cycle, the Environment Agency started the review process by undertaking a national review of the potential flood risk. This provided indicative Flood Risk Areas which, together with local records and data, were used by lead local flood authorities to identify areas to be designated as Flood Risk Areas. Since 2011, the county council has had a dedicated flood risk management team, whose job it is to fulfil the County Council's statutory role under the Flood and Water Management Act 2010. The work undertaken by the team since 2011 has meant that there is now a much better understanding of flood risk in the county than when the first assessment was submitted; this work has ensured that a full and robust review has been completed.
- 4.4. Where a lead local flood authority wants to amend or propose additional Flood Risk Areas, the Environment Agency's national guidance dictates that they should be comparable in terms of magnitude of flood risk to those already identified by the national assessment. Lead local flood authorities were tasked in the review to use their local knowledge to ensure the appropriateness of the indicative Flood Risk Areas identified.
- 4.5. In the first assessment cycle (2011), 10 Flood Risk Areas were identified as having strategic and significant flood risk across England. In this second cycle, the focus has been widened, leading to more Flood Risk Areas for the second cycle than the first.³ This is because Defra's ministerial guidance on significant risk has changed, in order to reflect improved national information on surface water risk. The Environment Agency has applied this updated guidance on significant risk for the production of the indicative Flood Risk Areas.
- 4.6. The methods, definitions, indicators and criteria used by the Environment Agency for identifying Flood Risk Areas are provided in the table in Appendix 2.

5. The Preliminary Flood Risk Assessment review process in Hertfordshire

- 5.1. The Environment Agency guidance documents included an invitation for lead local flood authorities to make the case for the identification of additional Flood Risk Areas, subject to their alignment with Defra's

² Review of preliminary flood risk assessments (Flood Risk Regulations 2009): guidance for lead local flood authorities in England, 25 January 2017.

³ Review of preliminary flood risk assessment (Flood Risk Regulations 2009): guidance for lead local flood authorities in England, 25 January 2017.

guidance on significant risk. The County Council's review has confirmed that there is a level of flood risk across the whole of Hertfordshire, but has concluded that there is no one area of significant risk that would justify designation as a Flood Risk Area. This decision is based on evidence, including the county council's experience of:

- 10 published and 6 unpublished Section 19 Flood Investigations. Flood Investigations are a statutory obligation under Section 19 of the Flood and Water Management Act. A Flood Investigation requires that on becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate which risk management authorities have relevant flood risk management functions, and whether each of those authorities has exercised, or is proposing to exercise, those functions in response to the flood.
- 6 Surface Water Management Plans.
- 12 Hydraulic Modelling / Options and Feasibility Studies. These studies are undertaken for known flooding sites in Hertfordshire, often following a Section 19 Flood Investigation. The studies aim to better understand the flood mechanisms and where possible, find a feasible option to mitigate flood risk.
- Approximately 800 new records in the authority's flood incident record since 2011.

This review has also confirmed the findings of the national analysis undertaken by the Environment Agency for the Hertfordshire area.

- 5.2. The approach taken by the County Council to date has been framed around the dispersed nature of flood risk in the county with strategic level studies, surface water management plans, being undertaken at the district scale. This scale is appropriate due to the district's role in local planning and because of their status as local risk management authorities. These plans are a formal policy within the current Local Flood Risk Management Strategy. They have been completed (or are nearing completion) for six districts/boroughs in Hertfordshire (St Albans, Watford, Dacorum, North Herts, Broxbourne and East Herts), with the remaining four now underway, due to be completed by Autumn 2019. The plans, which all relevant risk management authorities and stakeholders have been involved in producing, identify areas where flood risk is greatest and where the County Council with its partners will seek to develop a programme to manage flood risk in those areas. The surface water management plans for Dacorum, North Herts, Broxbourne and East Herts will shortly be sent out for stakeholder comment.
- 5.3. The work currently undertaken by the County Council within the surface water management plans already covers the requirements of the Preliminary Flood Risk Assessment process. Surface water management plans provide strategic assessments of flood risk, identifying flooding hotspot sites across the county and providing a

plan for future work. The designation of Flood Risk Areas, with their associated Flood Risk Management Plans, would require the production of an additional set of plans, which would duplicate what the County Council is already working on. Designation of such areas is therefore not thought to be beneficial, either to known flooding sites or to Hertfordshire as a whole.

- 5.4. The Flood and Coastal Erosion Risk Management Grant in Aid appraisal process is the method by which risk management authorities can apply for national funding to address flood risk management issues. It is focussed around people and property; schemes protecting a larger number of properties are more likely to achieve grant in aid funding. The County Council bids to fund projects via this means, and it is appraised by the Environment Agency. The county has benefitted from funding through this mechanism, a recent example being the Environment Agency contribution to the A120 bypass and flood alleviation scheme at Little Hadham. The Environment Agency have stated in their guidance that funding will not be linked to the designation of Flood Risk Areas in the future: "Funding will not be limited to Flood Risk Areas identified under the Regulations".⁴

6. Outcomes of the Preliminary Flood Risk Assessment review

- 6.1. The 2017 review report consists of two elements, a contextual report and a technical spreadsheet, which contains the background information to the contextual report. The approach taken for the review is consistent with what was done previously. The content of the submission is factual; involving reporting data that the County Council has collected, whether historical or predicted since the first assessment in 2011. The technical spreadsheet is not provided with the Self-Assessment Report in Appendix 1, but is available for Members to view if requested. The 2011 version has been updated for the 2017 review and includes the following:
- 38 additional records of past floods⁵ (since 2011).
 - These records encompassed the major surface water flood events affecting Hertfordshire: December 2013, February 2014, July 2014, September 2014, July 2015, June 2016 and September 2016.
 - 19 additional records referring to all studies undertaken by the County Council since 2011 to understand predicted flood risk (as well as the national Risk of Flooding from Surface Water map).

⁴ Review of preliminary flood risk assessment (Flood Risk Regulations 2009): guidance for lead local flood authorities in England, 25 January 2017.

⁵ The Environment Agency's guidance states: When reporting past floods, information is only required on floods which have occurred since December 2011 and which had significant harmful consequences. Our advice is that lead local flood authorities report those floods for which there was a subsequent investigation under Section 19 of the Flood and Water Management Act, or those floods which have shown a need to address risks not previously anticipated in the Local Flood Risk Management Strategy.

- Such studies include the surface water management plans, options and feasibility studies and hydraulic modelling studies.
- 7 amendments to bordering local authority indicative Flood Risk Areas.
 - The amendments ensure the Flood Risk Areas are within their corresponding local authority boundaries, ensuring a better fit to the future flood risk management processes of the respective lead local flood authorities.

6.2. The 2011 assessment had no Flood Risk Areas designated in Hertfordshire. The first Preliminary Flood Risk Assessment did not go to Panel as it was a technical assessment and there was nothing of significance to report. This assessment is being presented to panel for review as the better understanding of flood risk in the county, and the opportunity to define additional Flood Risk Areas, has meant that it is appropriate for members to review the response before it is submitted to the Environment Agency. The 2017 review has led to no Flood Risk Areas being proposed in Hertfordshire and some minor Flood Risk Area boundary changes, for those areas bordering the county. These minor changes amend the Flood Risk Area boundaries to ensure that they are changed to follow the town/local authority boundary, examples include: Harlow, Luton, Harrow etc. These anomalies are a result of the resolution used by the Environment Agency in their national assessment.

6.3. The Environment Agency's Partnership and Strategic Overview Team have been consulted on the 2017 draft review and have indicated that they do not have any comment on the draft submission; accepting the county council's submission in its current format, subject to member endorsement.

7. Financial Implications

7.1. There are no financial implications arising from this report.

8. Equalities Implications

8.1. When considering proposals placed before Members it is important that they are fully aware of, and have themselves rigorously considered the equality implications of the decision that they are making.

8.2. Rigorous consideration will ensure that proper appreciation of any potential impact of that decision on the County Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EQiA) produced by officers.

8.3. The Equality Act 2010 requires the County Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act;

(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and
(c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.

8.4. No equality implications have been identified in relation to this report.

Appendices

Appendix 1: Preliminary Flood Risk Assessment review Self-Assessment Report.

Appendix 2: Table 1 – Indicators and criteria for assessing whether the risk of local flooding is significant for the purposes of identifying flood risk areas.

Background Information

2011 PFRA Report

Environment Agency Guidance: Review of preliminary flood risk assessments (Flood Risk Regulations 2009): guidance for lead local flood authorities in England.

Preliminary flood risk assessment review

Self-assessment form

January 2017

This self-assessment form is provided to enable each lead local flood authority (LLFA) in England to complete the first review of its preliminary assessment report and identification of flood risk areas (FRAs), as required by the Flood Risk Regulations (2009).

Who should complete this self-assessment?

Every LLFA in England should complete parts A, C and D of the self-assessment form and submit it, with the additional information requested in sections C3 and C4, to the appropriate Environment Agency Partnership and Strategic Overview team **no later than 22 June 2017**.

All LLFAs should read the guidance document 'Preliminary flood risk assessment review: guidance for lead local flood authorities in England' before completing the self-assessment form.

Part A - LLFA contact information

Name of LLFA	Hertfordshire County Council
Name of LLFA officer submitting the assessment	Charlotte Kemp
Job title	Senior Flood Risk Officer
Telephone number	01992 556791
Email address	charlotte.kemp@hertfordshire.gov.uk
Name of LLFA officer approving the assessment	Andy Hardstaff
Job title	Flood Risk Management Team Leader
Date submitted to Environment Agency	21/06/2017
Link to PFRA report 2011	http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/research/planning/135542.aspx

Part B - to be completed by the Environment Agency

Name of Environment Agency officer receiving the completed assessment	
Job title	
Date assessment received from LLFA	
Date assessment agreed with LLFA	

Part C - LLFA self-assessment

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
1. Governance and partnership	1.1 Since publication of the PFRA in 2011, have there been any changes to, or creation of new, risk management authorities (RMAs) with responsibilities in the LLFA area?	No	<p>No new risk management authorities (RMAs) have been created with responsibility in the LLFA area of Hertfordshire.</p> <p>Since the publication of the PFRA in 2011, the Highways Agency has changed their name to Highways England.</p>	<p>None needed.</p> <p>In the current report Highways Agency is referenced, this will need to be changed.</p>
	1.2 Are all roles and responsibilities for collecting and recording flood risk data and information clearly defined, including the respective roles and responsibilities of upper and lower tier authorities and other RMAs where relevant?	Yes	<p>All roles and responsibilities are clearly defined.</p> <p>As part of the Issues and Options consultation on the review of the Local Flood Risk Management Strategy 2017, lower tier authorities gave feedback on the level of resources within lower tier authorities. For example, some lower tier district councils within Hertfordshire are very well resourced to deal with their responsibilities in relation to ordinary watercourses, whilst other districts are not.</p> <p>Further, in the questionnaire sent out to the</p>	<p>Roles will be defined in the new Local Flood Risk Management Strategy (LFRMS), published in 2017.</p>

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>lower tier authorities as part of the Issues and Options Consultation on the LFRMS there were mixed responses on what each RMA was able to do. When lower tier authorities were asked the following: if any assistance was available from each authority in relation to a) preparing for flood events, b) during flood events, and c) to support people after flood events, all authorities (who responded to the questionnaire) would respond during a flood event, but a number would not, or did not have the resource to do a) or c).</p>	
<p>2. Data systems and management</p>	<p>2.1 Do you have an up to date record of relevant sources of flood risk data and information for the LLFA area, including those held by other organisations?</p>	<p>Yes - For this LLFA No - From other organisations</p>	<p>Hertfordshire County Council has an up to date record of surface water flood risk data for the LLFA area. Following a flood event, the LLFA seeks out where flooding has occurred through fire and rescue records, highways reports and local media coverage. Questionnaires are then sent out to residents who could have been affected. This ensures the LLFA gains as full an understanding as possible about a flood event; recording this in a flood incident record.</p> <p>The Hertfordshire LLFA does not have copies of all records held by other organisations. However, we do request records from Water and Sewerage Companies, the Environment Agency etc.</p>	<p>Propose formalised sharing of information with Water and Sewerage Companies and the Environment Agency. This could include monthly updates on flood records, or following a flood event.</p> <p>The Hertfordshire LLFA receives regular reports from Anglian Water Services on their Flood Event Data; this arrangement could also be made with Thames Water Utilities Limited (TWUL). Similar information can currently be requested from TWUL on an event or site basis.</p> <p>The way we work with partners and stakeholders will be detailed as part of the review of the Local Flood Risk Management</p>

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			where needed following flood events and as part of working with RMAs for Section 19 Flood Investigations.	Strategy (2017).
	2.2 Have sources of 'locally agreed surface water information' been established and maintained for the LLFA area and agreed with relevant partners?	Yes	<p>The Risk of Flooding from Surface Water (RoFfSW) maps form the basis for the Hertfordshire LLFA's advice to LPAs.</p> <p>Locally agreed surface water information is included in the Surface Water Management Plans (SWMPs) for Hertfordshire. Each SWMP covers a district/borough of Hertfordshire; six out of the ten districts have completed or near completed SWMPs. For each SWMP, relevant stakeholder meetings are held, and information gathered from all partners.</p> <p>Locally agreed surface water information is also available in the Section 19 Flood Investigation reports undertaken following flood events, which meet the LLFA's criteria for an investigation. Flood Investigation reports are agreed with the relevant partners (RMAs) before publication. Options and Feasibility Studies have also been undertaken and involve relevant partners where needed.</p>	<p>The LLFA is in the process of procuring the final four SWMPs for Hertfordshire. When these are fully completed in 2019, the Hertfordshire LLFA's understanding of local flood risk in these last four districts/boroughs will be significantly increased.</p> <p>Information is continually under review. The RoFfSW maps are the best available information. We will seek to refine this, as and when information becomes available.</p>
	2.3 Are systems in place to collect, record and share data and information for the purpose of assessing flood risk in the LLFA	Yes	How the LLFA works to obtain the information to populate our flood incident record is as follows. This system has been used for the past 3 major flood events in the	None needed.

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
	area?		<p>county:</p> <ul style="list-style-type: none"> - Following a flood event, review local media reports, fire and rescue service reports, highways reports, as well as any other communication received by the LLFA. - Request additional information from third parties where needed. - Spatially review the flood reports with the RoFfSW map to capture where else could have flooded. - Write to residents of Hertfordshire who may have suffered flooding to gain a fuller understanding of the flood event. - Review to determine which flood incidents that meet the criteria for a Section 19 Flood Investigation. - Due to the availability of resources, Hertfordshire County Council determined criteria to prioritise those incidents. <p>Systems for collecting, recording and sharing data include GIS, Microsoft Excel as well as reports available in either Microsoft Word or PDFs.</p> <p>Hertfordshire LLFA collects and makes data available to other RMAs, as appropriate.</p>	
	2.4 Are systems in place to assure the quality and security of data	Yes	All data is stored securely on Hertfordshire County Council servers. These servers are	None needed.

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
	and information recorded for the purpose of assessing flood risk in the LLFA area?		<p>frequently backed up. No information is stored on personal laptops. Where information is needed to be stored on external hard drives e.g. hydraulic models, three separate copies are made.</p> <p>The flood incident record is associated with the address points or OS Master Map data; no personal information given to us by residents or information which would be covered under data protection is stored.</p> <p>All Contractors working on Hertfordshire County Councils behalf have to sign a data sharing agreement. Contractors also sign a Public Sector Mapping Agreement (PSMA) when using any data which is covered under this.</p>	
	2.5 Do you understand the condition and performance of the public, third party and private assets in your register in terms of flood risk?	Yes/No	<p>The Register of Structures and Features has not been formally updated since the publication of the first Local Flood Risk Management Strategy in 2013.</p> <p>The condition of those structures and features that are on the register are known; however, not all structures and features known in Hertfordshire are populated within it.</p>	The process of defining if an asset (structure and/or feature) should be put on a register is being determined as part of the review of the Local Flood Risk Management Strategy 2017. Hertfordshire County Council as LLFA is in the process of commissioning and implementing software which will enable better recording of assets in Hertfordshire.
3. Past floods since Dec 2011 only)	3.1 Have any flood events occurred since publication of the original PFRA report in December 2011 that have added to or	Yes	<p>As requested in the guidance notes, this box has not been populated.</p> <p>Details of relevant floods have been</p>	None needed.

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
Information on past floods since 2011 is required for reporting to the European Commission	<p>changed your understanding of significant flood risk in the LLFA area?</p> <p>See the guidance document on which floods to report.</p>		<p>provided by updating Annex 1 Past Floods of the original PFRA report to include relevant floods since 2011.</p> <p>Information from the updated Annex 1 will be used for reporting to the European Commission.</p>	
	<p>3.2 Has your current understanding of significant flood risk in the LLFA area changed as a result of the consequences of floods that have occurred since 2011? How?</p>	Yes	<p>As requested in the guidance notes, the below statement has been included here, and copied into the relevant section of the PFRA Addendum at the end of this document.</p> <p>The Hertfordshire LLFA's understanding of significant flood risk in Hertfordshire has changed as a result of the consequences of the floods that have occurred since 2011. Four major flood events have occurred in Hertfordshire since 2011; these being 1) Winter 2013-2014, encompassing February 2014, 2) July 2015, 3) June 2016 and 4) September 2016. Flooding in the three most recent events can be attributed to high intensity summer storms, considered to be exceptional. Whilst flooding in February 2014 was the result of a long period of wet weather, creating antecedent conditions which meant that an unexceptional storm caused flooding.</p> <p>The LLFA has learnt that overall, the RoFfSW map predicts flooding well. This has been confirmed where known flood incidents correspond with the RoFfSW map.</p>	None needed.

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>However, there are some areas of the RoFfSW map which either under or over predict flooding, or incorrectly predict flooding. With both of these points in mind, flooding that has occurred in Hertfordshire, has meant that the Hertfordshire LLFA's understanding of the RoFfSW map has increased significantly, for example:</p> <ol style="list-style-type: none"> 1. Data: For more rural areas of Hertfordshire, the DTM used in the uFMfSW and subsequent RoFfSW use NEXTMap data. Whilst the use of NEXTMap data is not an issue in unpopulated areas, it can be an issue where a rural flowpath is flowing into an urban one, or where part of an urban area is covered by NEXTMap data. One example of this is Robbery Bottom Lane, Welwyn, where the discrepancy between the NEXTMap data and topographical surveyed points was +/- 1-2m. 2. The storm duration over which the JFlow+ model and the subsequent RoFfSW map results have been obtained. As the maximum extent over three different storm durations was used, we can't be sure where areas shown as at flood risk on the RoFfSW are under or over predicting. A few areas have shown discrepancies with the RoFfSW map. This also means that the worst case scenario is not necessarily the conditions under which the worst case scenario occurs, e.g. one 6 hr storm and one 3 hr storm could create different extents. 	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>The RoFfSW maps were compared to the flood maps produced for the Surface Water Management Plans (SWMPs). This showed that overall the SWMP maps are similar to the RoFfSW maps, with some differences. These being where the SWMP maps have improved understanding, such as when the uFMfSW DTM did not represent a substantial road cutting and embankment from a recent bypass road, which when included in the model, changed the surface water floodmap. Overall, however, the RoFfSW map and the SWMP hotspot floodmaps are broadly similar.</p> <p>All of the above has increased the Hertfordshire LLFA's understanding of flood risk in the county.</p>	
<p>4. Future flood information Information on future floods is required for reporting to the European Commission</p>	<p>4.1 Have you created or received new information on potential future floods that has added to or changed your understanding of significant flood risk in the LLFA area since publication of your original PFRA report in 2011?</p>	<p>Yes</p>	<p>As requested in the guidance notes, this box has not been populated.</p> <p>Details have been provided by updating Annex 2 Future Floods of the original PFRA report to include relevant new information since 2011.</p> <p>Information from the updated Annex 2 will be used for reporting to the European Commission.</p>	<p>None needed.</p>
	<p>4.2 Have you created or received new information to improve the understanding of the future impact</p>	<p>Yes</p>	<p>Since 2011, a number of studies have been undertaken across Hertfordshire that have included hydraulic modelling. For some of</p>	<p>No urgent action needed, though the LLFA will continue to develop and further its understanding of the future impact of climate</p>

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
	of climate change on flood risk in the LLFA area?		<p>these sites climate change scenarios were run; including either a 30% or 40% climate change allowance (changed in accordance with the updated climate change guidance). Annex 2 details sites in Hertfordshire which have been hydraulically modelled to understand future flood risk, including climate change in the rainfall probabilities run.</p> <p>For the LLFA's statutory consultee role in planning applications, account was also taken of the national guidance on climate change uplift.</p> <p>This has helped with the LLFA's understanding of the impact of climate change on already at risk sites.</p>	change on flood risk in Hertfordshire.
	4.3 Have you created or received new information on long term developments to improve your understanding of flood risk in the LLFA area?	Yes	<p>As statutory consultee on major planning applications or development on known flood risk sites; the Sustainable Drainage team of the LLFA are continually informed on the development of land in Hertfordshire.</p> <p>The Hertfordshire LLFA is consulted on the Local Planning Authorities (LPAs) Strategic Flood Risk Assessment (SFRAs) undertaken as part of the LPAs Local Plans. Local Plans set out a vision and a framework for the future development of the area, addressing needs and opportunities in relation to housing, the economy,</p>	None needed.

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>community facilities and infrastructure – as well as a basis for safeguarding the environment, adapting to climate change and securing good design. An SFRA supports the LPAs Local Plan; to help make planning decisions. Planning applicants will refer to a LPAs SFRA when carrying out their site specific flood risk assessments. The Hertfordshire LLFA comments on each LPAs SFRA.</p> <p>Information on long term developments to improve the Hertfordshire LLFA's understanding of local flood risk is a continual process.</p>	
	<p>4.4 Has your understanding of flood risk in the LLFA area changed since 2011 as a result of new information on the potential consequences of future floods, the impact of climate change or long term developments? How?</p>	<p>Yes</p>	<p>As requested in the guidance notes, this box has been completed, with a copy of the Hertfordshire LLFAs statement included in the relevant section of the PFRA Addendum, at the end of this document.</p> <p>The Hertfordshire LLFA's understanding of flood risk in Hertfordshire has changed since 2011. Much knowledge has been gained on the potential consequences of future floods, in addition to the impact of climate change and long term developments.</p> <p>With the overall aim of increasing the LLFA's understanding of future flood risk in Hertfordshire, the LLFA undertakes four main types of studies:</p>	<p>None needed.</p>

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>1) Section 19 Flood Investigations. These investigations complete the LLFA's statutory role under Section 19 Local authorities: investigations under the Flood and Water Management Act 2010 " On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate: (a) which risk management authorities have relevant flood risk management functions, and (b) whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.</p> <p>2) Initial Assessments. These are undertaken in partnership with the Environment Agency, using their framework for Initial Assessments. An Initial Assessment collates together information on flood risk for a site; the assessment determines whether a scheme could be viable for a site, to decide if the site could be taken forward for further work.</p> <p>3) Options and Feasibility Studies/Hydraulic Modelling Studies. These are undertaken to better understand known historical flood risk at a site. Hydraulic modelling determines the flood mechanisms at a site, with Contractors assessing options to alleviate flooding. The ultimate aim of these studies is to produce an Outline Business Case for submission to the Environment Agency to compete for Flood and Coastal Erosion Risk</p>	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>Management Grant in Aid (FCERM GiA) funding.</p> <p>4) Surface Water Management Plans (SWMPs). SWMPs are an early stage assessment of flood risk in Hertfordshire, to get a strategic understanding of flood risk across the county. SWMPs are undertaken at the district scale; there are ten districts in Hertfordshire. When the Hertfordshire LLFA undertakes a SWMP, hotspot analysis and prioritisation is undertaken, with five sites (hotspots) being selected from each district for a more detailed assessment. SWMPs allow the LLFA to achieve a high level strategic overview of flood risk across each district.</p> <p>The LLFA also undertakes partnership working with other LLFAs, other RMAs and other parts of the County Council organisation; these studies can encompass any aspect of flood risk.</p> <p>Completed studies or near completed studies that the LLFA has undertaken include:</p> <ul style="list-style-type: none"> - 12 Section 19 Flood Investigations. 10 published and 6 unpublished. - Travellers Lane, Hatfield, Hydraulic Modelling Study. 	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<ul style="list-style-type: none"> - Harefield Road, Rickmansworth Asset and Hydraulic Modelling Study. - Kimpton Hydraulic Modelling Study. - Little Wymondley Hydraulic Modelling Study. - Robbery Bottom Lane, Welwyn Options and Feasibility Study. - Redbourn Options and Feasibility Study. - Long Marston Hydraulic Modelling Study. - Dacorum Borough Surface Water Management Plan; including hydraulic modelling of four hotspots. - North Hertfordshire District Surface Water Management Plan; including hydraulic modelling of six hotspots. - East Hertfordshire District Surface Water Management Plan; including hydraulic modelling on five hotspots. - Broxbourne Borough Surface Water Management Plan; including hydraulic modelling on five hotspots. - Marshmoor Lane / Foxes Lane, Welham Green, Watercourse Improvement and Partnership Study. <p>Current and future programmed studies for this year (2017) include:</p> <ul style="list-style-type: none"> - 18 Detailed Section 19 Flood Investigations from June 2016 and 	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>September 2016 flooding across the county.</p> <ul style="list-style-type: none"> - Darkes Lane, Potters Bar, Hydraulic Modelling Study. - Datchworth, Hydraulic Modelling Study. - Knebworth Options and Feasibility Study. - Pix Brook, Letchworth Garden City, Hydraulic Modelling Study. <p>The first three types of studies undertaken by the Hertfordshire LLFA involve the LLFA looking at previous historical floods and being guided by them on where we prioritise our work. This ensures we understand the future flood risk at those already at risk sites. The final type of study, SWMPs, build on looking at those already at risk sites; but also seek to review future potential at risk sites, which may or may not have flooded previously. The SWMPs provide a first stage look at identifying flood risk areas (called hotspots) in each district of Hertfordshire. A SWMP outlines the preferred surface water management strategy within a district/borough, and as such is required to look at future flood risk for that district/borough. SWMPs also identify any at risk sites which may have been allocated for future development, by reviewing the Local Planning Authorities (LPAs) Local Plan.</p>	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>All these studies increase the LLFA's understanding of flood risk by:</p> <ul style="list-style-type: none"> - Confirming the flood mechanism for an at risk site, by analysing Hertfordshire residents flooding questionnaires and on site surveys. - Confirming the flood mechanism for an at risk site by undertaking hydraulic modelling. Including more detail in the modelling than that in the RoFfSW modelling. Such as topographical survey of kerb heights, spot heights, fences, properties boundaries and property threshold levels. As well as the inclusion of surface water sewer networks (including surveying and tracing where needed), ordinary watercourses and Main Rivers, where appropriate. - Running different scenarios through the hydraulic model including for example, the do minimum and do nothing situation, as well as climate change analysis, to better understand how flood risk could change at an at risk site. - Displaying spatially areas at risk of surface water flooding; including modelled/mapped and point data (e.g. the flood incident record). - Understanding of any options to mitigate flood risk and how they could be implemented in an at risk area. Including analysis of cost-benefit and if that option 	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>would attract central government funding.</p> <ul style="list-style-type: none"> - Understanding if property resilience measures are the most appropriate option for a flood risk site. <p>In terms of long term development, the SuDS team of the Hertfordshire LLFA follow national guidance, and also have their own guidance (based on published information e.g. CIRIA (construction industry research and information association) manuals) on how developers should implement SuDS in Hertfordshire. The team provide recommendations to the LPA on reviewing major planning applications and for those applications on flood risk sites. Whilst the final decision rests with the LPA, the SuDS team follow this strict guidance to help ensure new development does not increase flood risk in Hertfordshire.</p> <p>Future floods, the impact of climate change and long term development all have the potential to increase flood risk in Hertfordshire. Our understanding, brought about through undertaking multiple studies has increased significantly since 2011. These studies, together with future ones, will ensure that the Hertfordshire LLFA will be able do as much as possible, within the bounds of available resources, to help</p>	

DRAFT

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			mitigate this impact.	
5. Identification of Flood Risk Areas for 2nd planning cycle Identified FRAs are required for reporting to the European Commission	5.1 Are the indicative FRAs an appropriate representation of significant surface water flood risk in your LLFA area?	n/a	There are no indicative FRAs within Hertfordshire, except those areas from the Method 1: Cluster Method and Method: 2 Communities at Risk, which cross a very small amount into the Hertfordshire County boundary.	It is proposed that the areas be removed from where they are within the Hertfordshire County boundary.
	5.2 Do the consequences of flooding from other local sources , i.e. groundwater or ordinary watercourses, or from combined multiple sources , indicate any other areas of significant risk?	No	<p>There are other known areas at risk of other local sources of flooding in Hertfordshire.</p> <p>In the case of groundwater, these at risk areas are very difficult to predict; unless groundwater flooding has previously occurred and it is thought to occur again in the future, for example, the village of Kimpton.</p> <p>Flooding from ordinary watercourses is often combined with surface water flooding. Areas affected by ordinary watercourse flooding are predominantly known in Hertfordshire; especially where they have flooded previously, for example, the village of Little Wymondley.</p> <p>Combined multiple sources of flooding are also known; if they are not necessarily</p>	None needed.

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
			<p>combined at the point of flood, it is that one source of flooding is impacted by another, which could cause flooding. For example, the town of Watford, where surface water is impeded from draining into the Main River at a number of locations.</p> <p>Whilst there are other known sources of local flooding in Hertfordshire, and flooding from combined multiple sources, it is not believed that any of these areas are at significant enough risk to be determined as FRAs.</p>	
	5.3 Has your PFRA review identified any other information which indicates other areas of significant risk?	No	This PFRA review has not identified any other information which indicates other areas of significant risk.	None needed.
	5.4 On the basis of the national evidence provided and your review, do you agree with the indicative FRAs for your area?	No	<p>As requested in the guidance notes, this box has not been populated.</p> <p>Details have been provided by updating Annex 3 of the original PFRA report to include amendments to the indicative FRAs bordering Hertfordshire.</p>	<p>Whilst there are no real indicative FRAs within Hertfordshire. Some areas identified in the Method 1: Cluster Method and Method 2: Communities at risk, which are primarily in other areas, cross into the Hertfordshire County boundary. The Hertfordshire LLFA proposes to have these areas clipped to the Hertfordshire County boundary, so that they are omitted from Hertfordshire.</p> <p>On review of the shapefile: "PFRA_Method1_1KMBlueSquares" it is noted that some individual squares are nearby to each other; though do not meet the criteria for</p>

PFRA report section	Activity for PFRA/FRA review	Yes/No	Summary description	Actions planned in response
				identifying an indicative Flood Risk Area (iFRA). All of these locations are identified within the Surface Water Management Plans (SWMPs). It is therefore determined that this finding is nothing exceptional, as they are identified in the Hertfordshire LLFAs SWMPs.
	5.5 On the basis of local evidence and your review, are you amending or identifying any additional FRAs for your area?	Yes	As requested in the guidance notes, this box has not been populated. No additional FRAs are proposed. Annex 3 of the original PFRA report has been updated with amendments.	The Hertfordshire LLFA is not recommending any additional FRAs, but would like to amend boundaries; please see Annex 3.
6. Updating the original preliminary assessment report using the template addendum (see also Part D) Updates are required for reporting to the European Commission	6.1 Have you completed an addendum to update your preliminary assessment report?	Yes	As requested in the guidance notes, this box has not been populated. The PFRA Addendum has been completed at the end of this document.	None needed.

Part D Template for addendum to update the original Preliminary Flood Risk Assessment report

ADDENDUM

Update to the preliminary flood risk assessment report for Hertfordshire County Council LLFA

The preliminary flood risk assessment (PFRA) and flood risk areas (FRAs) for Hertfordshire County Council LLFA were reviewed during 2017, using all relevant current flood risk data and information, and agreed with the Environment Agency on 22 December 2017.

Changes to the assessment of risk since the preliminary assessment report was published in 2011 are described in the statements in this addendum.

The annexes to the preliminary assessment report have been reviewed and updated to show relevant new information since 2011.

Past flood risk

The Hertfordshire LLFA's understanding of significant flood risk in Hertfordshire has changed as a result of the consequences of the floods that have occurred since 2011. Four major flood events have occurred in Hertfordshire since 2011; these being 1) Winter 2013-2014, encompassing February 2014, 2) July 2015, 3) June 2016 and 4) September 2016. Flooding in the three most recent events can be attributed to high intensity summer storms, considered to be exceptional. Whilst flooding in February 2014 was the result of a long period of wet weather, creating antecedent conditions which meant that an unexceptional storm caused flooding.

The LLFA has learnt that overall, the RoFfSW map predicts flooding well. This has been confirmed where known flood incidents correspond with the RoFfSW map. However, there are some areas of the RoFfSW map which either under or over predict flooding, or incorrectly predict flooding. With both of these points in mind, flooding that has occurred in Hertfordshire, has meant that the Hertfordshire LLFA's understanding of the RoFfSW map has increased significantly, for example:

1. Data: For more rural areas of Hertfordshire, the DTM used in the uFMfSW and subsequent RoFfSW use NEXTMap data. Whilst the use of NEXTMap data is not an issue in unpopulated areas, it can be an issue where a rural flowpath is flowing into an urban one, or where part of an urban area is covered by NEXTMap data. One example of this is Robbery Bottom Lane, Welwyn, where the discrepancy between the NEXTMap data and topographical surveyed points was +/- 1-2m.
2. The storm duration over which the JFlow+ model and the subsequent RoFfSW map results have been obtained. As the maximum extent over three different storm durations was used, we can't be sure where areas shown as at flood risk on the RoFfSW are under or over predicting. A few areas have shown discrepancies with the RoFfSW map. This also means that the worst case scenario is not necessarily the conditions under which the worst case scenario occurs, e.g. one 6 hr storm and one 3 hr storm could create different extents.

The RoFfSW maps were compared to the flood maps produced for the Surface Water Management Plans (SWMPs). This showed that overall the SWMP maps are similar to the RoFfSW maps, with some differences. These being where the SWMP maps have improved understanding, such as when the uFMfSW DTM did not represent a substantial road cutting and embankment from a recent bypass road, which when included in the model, changed the surface water floodmap. Overall, however, the RoFfSW map and the SWMP hotspot floodmaps are broadly similar.

All of the above has increased the Hertfordshire LLFA's understanding of flood risk in the county.

Future flood risk

The Hertfordshire LLFA's understanding of flood risk in Hertfordshire has changed since 2011. Much knowledge has been gained on the potential consequences of future floods, in addition to the impact of climate change and long term developments.

With the overall aim of increasing the LLFA's understanding of future flood risk in Hertfordshire, the LLFA undertakes four main types of studies: 1) Section 19 Flood Investigations, 2) Initial Assessments, 3) Options and Feasibility Studies/Hydraulic Modelling Studies, 4) Surface Water Management Plans. The LLFA also undertakes partnership working with other LLFAs, other RMAs and other parts of the County Council organisation; these studies can encompass any aspect of flood risk.

Completed studies or near completed studies that the LLFA has undertaken include:

- 12 Section 19 Flood Investigations. 10 published and 6 unpublished.
- Travellers Lane, Hatfield, Hydraulic Modelling Study.
- Harefield Road, Rickmansworth Asset and Hydraulic Modelling Study.
- Kimpton Hydraulic Modelling Study.
- Little Wymondley Hydraulic Modelling Study.
- Robbery Bottom Lane, Welwyn Options and Feasibility Study.
- Redbourn Options and Feasibility Study.
- Long Marston Hydraulic Modelling Study.
- Dacorum Borough Surface Water Management Plan; including hydraulic modelling of four hotspots.
- North Hertfordshire District Surface Water Management Plan; including hydraulic modelling of six hotspots.
- East Hertfordshire District Surface Water Management Plan; including hydraulic modelling on five hotspots.
- Broxbourne Borough Surface Water Management Plan; including hydraulic modelling on five hotspots.
- Marshmoor Lane / Foxes Lane, Welham Green, Watercourse Improvement and Partnership Study.

Current and future programmed studies for this year (2017) include:

- 18 Detailed Section 19 Flood Investigations from June 2016 and September 2016 flooding across the county.
- Darkes Lane, Potters Bar, Hydraulic Modelling Study.
- Datchworth, Hydraulic Modelling Study.
- Knebworth Options and Feasibility Study.
- Pix Brook, Letchworth Garden City, Hydraulic Modelling Study.

The first three types of studies undertaken by the Hertfordshire LLFA involve the LLFA looking at previous historical floods and being guided by them on where we prioritise our work. This ensures we understand the future flood risk at those already at risk sites. The final type of study, SWMPs, build on looking at those already at risk sites; but also seek to review future potential at risk sites, which may or may not have flooded previously. The SWMPs provide a first stage look at identifying flood risk areas (called hotspots) in each district of Hertfordshire. A SWMP outlines the preferred surface water management strategy within a district/borough, and as such is required to look at future flood risk for that district/borough. SWMPs also identify any at risk sites which may have been allocated for future development, by reviewing the Local Planning Authorities (LPAs) Local Plan.

All these studies increase the LLFA's understanding of flood risk by:

- Confirming the flood mechanism for an at risk site, by analysing Hertfordshire residents flooding questionnaires and on site surveys.
- Confirming the flood mechanism for an at risk site by undertaking hydraulic modelling. Including more detail in the modelling than that in the RoFfSW modelling. Such as topographical survey of kerb heights, spot heights, fences, properties boundaries and property threshold levels. As well as the inclusion of surface water sewer networks (including surveying and tracing where needed), ordinary watercourses and Main Rivers, where appropriate.
- Running different scenarios through the hydraulic model including for example, the do minimum and do nothing situation, as well as climate change analysis, to better understand how flood risk could change at an at risk site.
- Displaying spatially areas at risk of surface water flooding; including modelled/mapped and point data (e.g. the flood incident record).
- Understanding of any options to mitigate flood risk and how they could be implemented in an at risk area. Including analysis of cost-benefit and if that option would attract central government funding.
- Understanding if property resilience measures are the most appropriate option for a flood risk site.

In terms of long term development, the SuDS team of the Hertfordshire LLFA follow national guidance, and also have their own guidance (based on published information e.g. Ciria manuals) on how developers should implement SuDS in Hertfordshire. The team provide recommendations to the LPA on reviewing major planning applications and for those applications on flood risk sites. Whilst the final decision rests with the LPA, the SuDS team follow this strict guidance to help ensure new development does not increase flood risk in Hertfordshire.

Future floods, the impact of climate change and long term development all have the potential to increase flood risk in Hertfordshire. Our understanding, brought about through undertaking multiple studies has increased significantly since 2011. These studies, together with future ones, will ensure that the Hertfordshire LLFA will be able do as much as possible, within the bounds of available resources, to help mitigate this impact.

Flood risk areas (FRAs)

No FRAs have been identified within Hertfordshire, for the purposes of the Flood Risk Regulations (2009) 2nd planning cycle.

Other changes

The structure of the Hertfordshire LLFA's flood risk management team has changed greatly since 2011. In 2011, there was only one member of the team; the team has now expanded to eight, covering the roles shown in the organogram below.

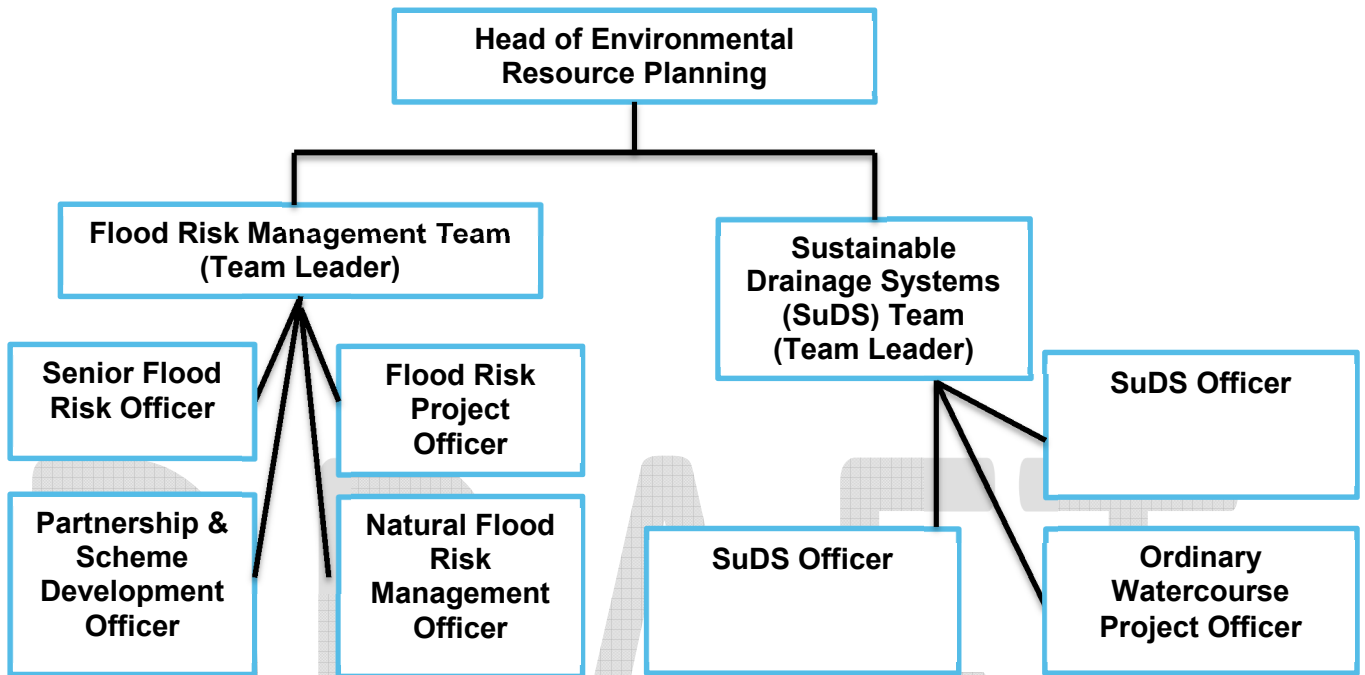


Table 1: Indicators and criteria for assessing whether the risk of local flooding is significant for the purposes of identifying flood risk areas

Method for determining iFRAs	Definition	Indicator	Criteria
Cluster method	A cluster is formed where, within a 3x3 km square grid, at least 5 of the 1km squares meet the criteria for one or more of the indicators.	Number of people at risk of surface water flooding*	200 people or more per 1km grid square Number of people taken as 2.34 times the number of residential properties at risk.
	Where multiple overlapping grids meet the requirement, these are unified to form a larger cluster.	Number of key services at risk of surface water risk* e.g. utilities, emergency services, hospitals, schools	More than one per 1km grid square
	All of the clusters (both small and large) have been identified as indicative flood risk areas.	Number of non-residential properties at risk*	20 or more per 1km grid square
Communities at risk	Community areas, as defined by the Office for National Statistics built-up areas (BUAs) and built-up areas sub-divisions (BUASD), where there is a large number of properties at risk.	Number of reportable properties (residential and non-residential) properties at risk*	3000 or more reportable properties (residential and non-residential) within a BUA/BUASD.

LLFAs should also consider information in relation to the following local factors which are additional to the indicators and criteria above:

- Flood risk from other local sources e.g. groundwater, local watercourses.
- The combined impact of flooding from multiple sources.
- Areas susceptible to more frequent, less extensive flooding, that could over time result in significant damages.
- Consequences of flooding for agricultural land.
- Consequences of flooding for roads, rail or other infrastructure.
- Consequences of flooding for internationally or nationally designated environmental sites or internationally or nationally important cultural heritage features.
- Location of sites subject to Integrated Pollution Prevention and Control or Control of Major Accident Hazard regulation.

*Risk of surface water flooding from a rainfall event with a 1% (or 1 in 100) chance of occurring in any one year.