

Central and Eastern Berkshire

Joint Minerals & Waste Plan

Draft Plan

Consultation Paper

June 2018



www.rbwm.gov.uk



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About this document and the Draft Plan consultation

Central and Eastern Berkshire – Joint Minerals & Waste Plan

Local Planning Authorities have a statutory responsibility to prepare and maintain an up-to-date local plan. Bracknell Forest Council, Reading Borough Council, the Royal Borough of Windsor and Maidenhead and Wokingham Borough Council (collectively referred to as the 'Central & Eastern Berkshire Authorities') are working in partnership to produce a Joint Minerals & Waste Plan which will guide minerals and waste decision-making in the Plan area for the period up to 2036.

The Joint Minerals & Waste Plan will build upon the formerly adopted minerals and waste plans for the Berkshire area, and improve, update and strengthen the policies and provide details of strategic sites that are proposed to deliver the vision.

The currently adopted minerals and waste plans for the Berkshire area¹ are the Replacement Minerals Local Plan for Berkshire, adopted in 1995 and subsequently adopted alterations in 1997 and 2001² (including Appendices³ and saved policies⁴) and the Waste Local Plan for Berkshire adopted in 1998⁵ (including saved policies). The Minerals Local Plan and Waste Local Plan cover the administrative areas of the Central & Eastern Berkshire Authorities, as well as Slough Borough Council and West Berkshire Council. While these plans cover the period until 2006, the Secretary of State has directed that a number of policies in them should be saved indefinitely until replaced by national, regional or local minerals and waste policies. For the Central & Eastern Berkshire Authorities, these saved policies will be replaced by the Joint Minerals & Waste Plan, when it is adopted.

A review of the Replacement Minerals Local Plan for Berkshire and the Waste Local Plan for Berkshire was previously being undertaken on behalf of the six Berkshire Unitary Authorities by the Joint Strategic Planning Unit. During the Examination of the Core Strategy concerns were raised and the Secretary of State subsequently formally requested the withdrawal of the Core Strategy in January 2010.

After a review of minerals and waste planning, the Central & Eastern Berkshire Authorities decided to progress with a Joint Minerals & Waste Plan. While the Joint

¹ Minerals and Waste - <http://www.wokingham.gov.uk/planning-and-building-control/planning-policy/minerals-and-waste/>

² Replacement Minerals Local Plan for Berkshire 2001 - <http://www.bracknell-forest.gov.uk/replacement-minerals-local-plan-for-berkshire-2001.pdf>

³ Replacement Minerals Local Plan for Berkshire 2001 Appendices - <http://www.bracknell-forest.gov.uk/replacement-minerals-local-plan-for-berkshire-2001-appendices.pdf>

⁴ Mineral Local Plan Saved Policies - <http://www.bracknell-forest.gov.uk/mineral-local-plan-saved-policies-schedule.pdf>

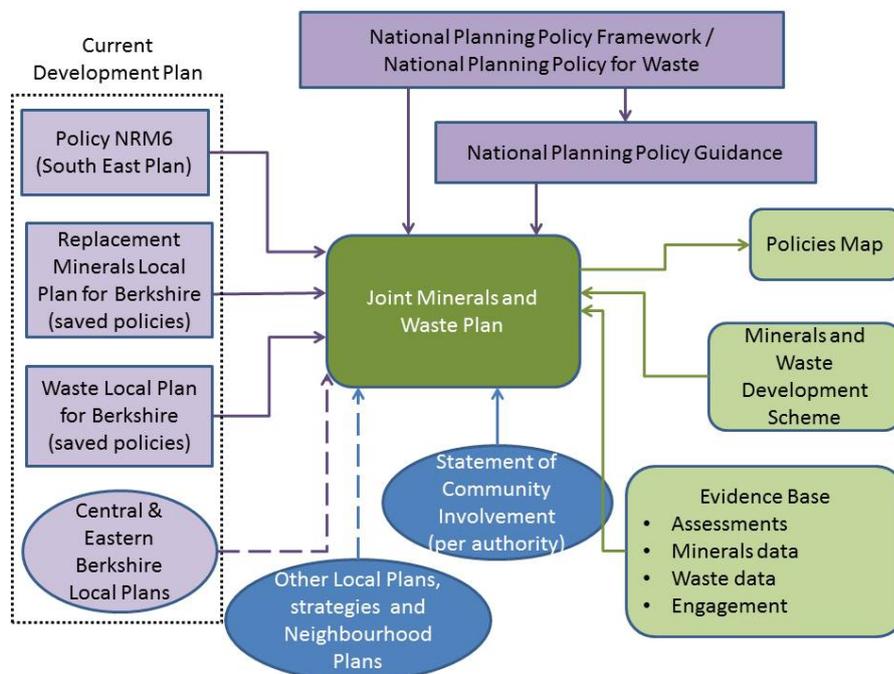
⁵ Waste Local Plan for Berkshire (1998) - <http://www.bracknell-forest.gov.uk/waste-local-plan-for-berkshire.pdf>

Minerals & Waste Plan does not cover Slough Borough Council⁶ or West Berkshire Council⁷, close coordination of the work between the Berkshire authorities will continue in order to plan for minerals and waste strategically and address any cross-border issues that may arise.

Preparing the Plan has involved engagement and collaboration with communities, local organisations and businesses. Public consultation will be held for each stage of the plan-making process. This Draft Plan consultation document follows an ‘Issues and Options’ Consultation carried out in the summer of 2017. The feedback and responses from that consultation have informed the direction of the draft Plan. It has also been prepared in cooperation with neighbouring authorities and other minerals and waste planning authorities that may be affected by the strategies and policies in the Plan. This has ensured that effective cooperation has been undertaken where there are cross-boundary impacts.

The Central & Eastern Berkshire – Joint Minerals and Waste Plan (JMWP) covers the period to 2036. This aligns the Plan with other Local Plans being developed by the authorities and meets the National Planning Policy Framework requirements (see Figure 1). The JMWP sets out the overarching strategy and planning policies for mineral extraction, importation and recycling, and the waste management of all waste streams that are generated or managed in Central and Eastern Berkshire.

Figure 1: Joint Mineral & Waste Plan related planning documents



⁶ Slough Borough Council minerals and waste policy - <http://www.slough.gov.uk/council/strategies-plans-and-policies/minerals-and-waste.aspx>

⁷ Emerging West Berkshire Minerals and Waste Local Plan - <http://info.westberks.gov.uk/index.aspx?articleid=29081>

The Draft Plan consultation stage

This stage includes the initial Draft Plan (previously referred to as 'Preferred Options') and is a key part in the preparation process for the new Joint Minerals and Waste Plan. The Draft Plan identifies and sets out the following subjects for the period up to, and including, the year 2036:

- The long term Spatial Vision and Strategic Objectives for minerals and waste in Central and Eastern Berkshire;
- The delivery strategy for minerals and waste planning that identifies how the objectives will be achieved through development policies in the plan period;
- The Development Management (DM) policies that will be used when the Local Planning Authorities make decisions on planning applications; and
- How each policy will be implemented and monitored by the Central & Eastern Berkshire Authorities to ensure their effectiveness.

The 'Issues and Options' Consultation was the first formal stage of engagement in the process to move to a fully up to date local plan. As a result of the responses received and consideration of local circumstances, the options have been narrowed down to identify the draft policies and proposed allocations. A summary report of the representations made at the Issues and Options stage is available on the Joint Minerals & Waste Plan consultation website: www.hants.gov.uk/berksconsult.

Responding to the Draft Plan consultation

We would like to hear from you in respect of your views on the consultation document and its accompanying material (Appendix C lists the accompanying material).

Consultation on the Draft Plan commences on 6th August 2018 and runs for ten weeks until 12th October 2018.

This document, the Interim Sustainability Appraisal (incorporating Strategic Environmental Assessment) (SA/SEA) Report, Habitats Regulation Screening Assessment and other supporting documentation, along with a consultation response form and a survey questionnaire, are all available to view and download from the Joint Minerals & Waste Plan consultation website:

www.hants.gov.uk/berksconsult.

The stages to come

Representations made in response to the Draft Plan consultation document, SA/SEA report and other relevant documentation will be given due consideration in the preparation of the next stage document, 'Proposed Submission'.

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1. Introduction

Status of the Plan

- 1.1 The Central and Eastern Berkshire - Joint Minerals and Waste Plan forms the land use planning strategy for minerals and waste development within the administrative area covered by the Central & Eastern Berkshire Authorities which are:
- Bracknell Forest Council
 - Reading Borough Council;
 - Wokingham Borough Council; and
 - The Royal Borough of Windsor and Maidenhead.
- 1.2 Together with the individually adopted Local Plans for each Authority, it forms the development plan for the area. The Plan guides the level of minerals and waste development needed within Central and Eastern Berkshire, and identifies where development should go. Proposals for minerals and waste developments will be considered against the policies contained in the Plan. The Plan is also relevant to the determination of non-minerals and waste applications which may be determined by those Authorities (in terms of other matters such as housing).
- 1.3 The detailed timescale for preparation of the Plan is set out in the Local Development Scheme (which is the formal programme for the plan preparation process) for each of the Authorities⁸. The Joint Minerals & Waste Plan (JMWP) is a Local Plan, supported by other development documents, such as the Statement of Community Involvement, for each Authority. The policies in this Plan will replace all previous Minerals and Waste Plan policies. The Plan period for the JMWP is up to 31 December 2036.
- 1.4 The Plan is being prepared in accordance with national legislation. It has also been prepared to be in general conformity with the National Planning Policy Framework (NPPF), National Planning Policy for Waste (NPPW) and the Waste Management Plan for England.
- 1.5 The JMWP only applies to the administrative area of the four unitary councils of Bracknell Forest, Reading, Wokingham and Windsor and Maidenhead. The

⁸ Bracknell Forest LDS - <https://www.bracknell-forest.gov.uk/sites/default/files/documents/local-development-scheme-2016-to-2019.pdf>

Reading LDS - http://www.reading.gov.uk/media/1053/Local-Development-Scheme/pdf/Local_Development_Scheme_November_2016.pdf

Windsor & Maidenhead LDS -

https://www3.rbwm.gov.uk/downloads/download/493/local_development_scheme_timetable

Wokingham LDS - <http://www.wokingham.gov.uk/planning/planning-policy/planning-policy-supporting-information/>

West Berkshire and Slough unitary authorities are preparing their own Local Plans.

- 1.6 Annual monitoring will determine when it is necessary to trigger a review of the adopted Plan and its policies. The proposed monitoring issues, indicators and triggers accompany each of the policies in this Draft Plan.
- 1.7 The preparation of the Plan provides the opportunity to develop a new spatial strategy for minerals and waste planning in Central and Eastern Berkshire. At the same time it allows for changes and adjustments to be made in the planning approach in order to reflect new legislation and other developments since adoption of its predecessors.
- 1.8 The evidence base for the Plan (see Figure 2) includes the Minerals Background Study and the Waste Background Study which set out the requirements for mineral supply and waste management provision, presented in this Plan (see Appendix C).

Figure 2: Joint Minerals & Waste Plan Evidence Base



Links with Legislation, Other Policies and Strategies

National Planning Policy

- 1.10 The Joint Minerals & Waste Plan will need to accord with current planning policy and guidance on minerals and waste. The National Planning Policy Framework (NPPF)⁹ was published on 27 March 2012 with the accompanying National Planning Practice Guidance¹⁰ launched in 2014 as a live document, updated as necessary by the Government. The Waste Management Plan for England¹¹ was published in December 2013, followed by the National Planning Policy for Waste¹² which was published in October 2014. A review of the NPPF is underway by government during 2018 and any future updates of this Plan will incorporate any relevant amendments.
- 1.11 A 'Duty to Cooperate'¹³ was introduced by the Localism Act and Regulations in 2011 in order to encourage local planning authorities to address issues which have impacts beyond their administrative boundaries. The approach being taken by the Central & Eastern Berkshire Authorities recognises that minerals and waste issues require a strategic cross-boundary approach. Beyond this, it is necessary to demonstrate on-going, constructive, and active engagement with other neighbouring councils and certain organisations that are concerned with sustainable development.
- 1.12 In order to demonstrate how this duty has been addressed, a Duty to Cooperate Statement accompanies this consultation document. The Statement shows who the authorities have cooperated with, the matters discussed, and when and where meetings have taken place to discuss sustainable development and strategic policies to achieve this. This Statement will be updated throughout the process and will be published alongside the Submission version of the JMWP, and sent to the Secretary of State for consideration through the examination in public process.

⁹ National Planning Policy Framework (2012) - <https://www.gov.uk/government/publications/national-planning-policy-framework--3>

¹⁰ Planning Practice Guidance - <http://planningguidance.communities.gov.uk/>

¹¹ Waste Management Plan for England - <https://www.gov.uk/government/publications/waste-management-plan-for-england>

¹² National Planning Policy for Waste - <https://www.gov.uk/government/publications/national-planning-policy-for-waste>

¹³ Localism Act 2011 - <http://www.legislation.gov.uk/ukpga/2011/20/section/110/enacted>

Regional Planning Policy

1.13 The South East Plan was partially revoked on 25 March 2013. Policy NRM6, which deals with the Thames Basin Heaths Special Protection Area, remains in place as a saved policy¹⁴ and is relevant to the Plan area.

Local Plans

1.14 Each of the Central & Eastern Berkshire Authorities will continue to prepare its own Local Plan, which will focus on the areas of planning that are not related to minerals and waste. They include the following:

- Comprehensive Local Plan for Bracknell¹⁵;
- Local Plan Update for Wokingham¹⁶;
- New Local Plan for Reading¹⁷; and the
- Borough Local Plan for Windsor and Maidenhead¹⁸.

Strategies

1.15 A Statement of Community Involvement (SCI) sets out the approach for involving the community in the preparation, alteration and continuing review of all development plan documents, and in publicising and dealing with planning applications. Each of the Central & Eastern Berkshire Authorities has adopted its own Statement of Community Involvement. They are as follows:

- Bracknell Forest SCI (adopted 2014)¹⁹;
- Reading SCI (adopted 2014)²⁰;
- Windsor and Maidenhead SCI (adopted 2016)²¹; and
- Wokingham SCI (adopted 2014)²².

¹⁴ Natural Resource Management (NRM6) - <http://www.bracknell-forest.gov.uk/south-east-plan-policy-nrm6.pdf>

¹⁵ Comprehensive Local Plan for Bracknell - <http://www.bracknell-forest.gov.uk/comprehensivelocalplan>

¹⁶ Local Plan Update for Wokingham - <http://www.wokingham.gov.uk/planning-and-building-control/planning-policy/local-plan-update/>

¹⁷ New Local Plan for Reading - <http://www.reading.gov.uk/newlocalplan>

¹⁸ Borough Local Plan for Windsor and Maidenhead - https://www3.rbwm.gov.uk/info/201026/borough_local_plan/1351/submission/1

¹⁹ Bracknell Forest Council. Statement of Community Involvement 2014 - <http://www.bracknell-forest.gov.uk/statement-of-community-involvement-2014.pdf>

²⁰ Reading Borough Council. Statement of Community Involvement 2014 - <http://www.reading.gov.uk/media/1051/Statement-of-Community-Involvement-Adopted-March-2014/pdf/Statement-Of-Community-Involvement-Mar14.pdf>

²¹ Royal Borough of Windsor and Maidenhead. Statement of Community Involvement 2016 - https://www3.rbwm.gov.uk/info/200209/planning_policy/460/statement_of_community_involvement/1

²² Wokingham Borough Council. Statement of Community Involvement 2014 - <http://www.wokingham.gov.uk/business-and-licensing/licensing-and-trade/licensing-decisions/?assetdet8733745=306132&categoryesct18379511=5844>

1.16 Central and Eastern Berkshire is located within the Thames Valley Berkshire Local Enterprise Partnership (LEP) area. The Thames Valley Berkshire LEP has produced a Strategic Economic Plan²³ which outlines the proposed strategic plan for implementing national economic growth and needs to be taken into consideration.

Assessment of the Local Plan

1.17 In line with European Directives, the Draft Plan has been subject to the following statutory assessments throughout its preparation:

- Strategic Environmental Assessment (incorporated into the Sustainability Appraisal); and
- Habitats Regulation Assessment.

1.18 In compliance with National policy, the Draft Plan is also subject to Strategic Flood Risk Assessment.

²³ Strategic Economic Plan -

<http://thamesvalleyberkshire.co.uk/Portals/0/FileStore/StrategicEconomicPlan/TVB%20SEP%20-%20Strategy.pdf>

2. Background and Context

The Central and Eastern Berkshire Context

- 2.1 The Central & Eastern Berkshire Authorities have a combined population of around 600,000, split relatively evenly between the four authorities. Spatially the degree of urbanisation increases from west to east, with the main centres of population and commercial activity located around the centres of Reading, Bracknell and Maidenhead.
- 2.2 With regards to individual authorities, Reading has a significantly greater population density than the others at around 4,000 people per square kilometre. The population pyramid for each of the authorities mirrors that of the UK as a whole, with the most significant difference being in Reading where the increase in the 20 years bracket reflects the prominence of educational facilities, specifically Reading University.
- 2.3 Superimposed on this dense pattern of land use is the significant area of Metropolitan Green Belt which covers areas of the Bracknell Forest, Wokingham and Windsor and Maidenhead Council areas. Within this area of Green Belt, new development is tightly controlled in order to prevent the outward sprawl of London.
- 2.4 The Green Belt designation imposes significant constraints in the eastern part of the Plan area, where there is the highest demand for waste management facilities to deal with waste arisings from the main centres of population and economic activity.

The role of minerals in supporting economic growth

- 2.5 Minerals are an important element both in the national economy and that of the Plan area. Its exploitation can make a significant contribution to economic prosperity and quality of life. Central and Eastern Berkshire as well as surrounding areas are subject to major growth pressures. The maintenance of a buoyant economy, the improvement and development of infrastructure and maintenance of the building stock all requires an adequate supply of construction minerals known as aggregates. Minerals development is therefore a key part of the wider economy.
- 2.6 The location and type of minerals development can also lead to local economic benefits, through the supply of a local resource to development projects and the provision of local employment. Recycled and secondary aggregates may also

provide the economy with a more sustainable and cheaper source of aggregate to support development.

- 2.7 Mineral production is also influenced by economic factors, in terms of operators wishing to extract mineral resources and market demand. The demand for mineral resources will be determined by the action of the market and macro-economic forces that are beyond the remit of the minerals planning authority to influence.
- 2.8 The performance of the economy is constantly changing, and the activities of the minerals industry could give rise to temporary and reversible effects (in that shortages of local supply could have implications for the timing and cost of physical development, but would be unlikely to prevent it from going ahead altogether).
- 2.9 The aggregates industry is important to the Plan area's economy because of its role alongside the construction sector in enabling the physical development including major infrastructure projects that are vital for economic growth and development. The future implications for the minerals industry of continuing changes in the structure of the economy within Central and Eastern Berkshire include an ongoing need for physical infrastructure, and a need to safeguard the quality of the environment.

The importance of planning for aggregates

- 2.10 The mineral of more than local significance in Central and Eastern Berkshire is sharp sand and gravel. National Policy Guidance²⁴ outlines how aggregate supply should be managed nationally through the Managed Aggregate Supply System (MASS) which seeks to ensure a steady and adequate supply of aggregate whilst taking into account the geographical imbalances and the occurrence of resources. MASS requires mineral planning authorities to make an appropriate contribution nationally as well as locally whilst controlling environmental damage to an acceptable level.
- 2.11 Owing to the obligations under the NPPF and more specifically MASS, there is a requirement for the Central & Eastern Berkshire Authorities to enable provision of this mineral as best they can.

The importance of planning for Waste

- 2.12 If left unmanaged waste can have a number of environmental, amenity and health impacts that are undesirable. Waste also compromises considerable

²⁴ PPG - <https://www.gov.uk/guidance/minerals> (Paragraph: 060 Reference ID: 27-060-20140306)

resources, which will have been used when producing the original object. With appropriate technologies, some of these resources can be retrieved and used again, thereby reducing the need for new materials. That is why an array of legislation exists to control how waste is managed and national policy seeks to improve the sustainability of waste management.

- 2.13 There are a variety of waste management facilities and technologies. Each has different locational requirements and range of potential impacts. The planning regime can manage these impacts, but there can be a conflict between the need for waste management facilities and in planning terms the suitability of potential sites. Therefore, the Joint Minerals & Waste Plan should not only determine the amount and type of waste management facilities but also the appropriate locations for sites.
- 2.14 Ultimately, the role of the Joint Minerals & Waste Plan will be to meet national policy ambitions locally, to deliver sustainable development through driving waste up the “waste hierarchy”, recognise the need for a mix of types and scale of facilities, and make adequate provision for waste management including disposal.

3. Spatial Vision for Minerals and Waste

- 3.1 The Joint Minerals & Waste Plan will cover the period up to 2036 in order that it aligns with the Local Plans that the Central & Eastern Berkshire Authorities are producing.
- 3.2 The Vision, Strategic Plan Objectives and Spatial Strategy principles have been prepared to be consistent with National Policy principles and fit with the other Local Plans within Central and Eastern Berkshire.

Vision

- 3.3 The Vision shapes the overall direction of the Central and Eastern Berkshire - Joint Minerals & Waste Plan. The area covered by the Plan will continue to experience significant growth in the period up to 2036 and so the Vision must recognise the balance to be struck between making provision for minerals and waste developments to meet future requirements, whilst at the same time ensuring that such developments seek social, environmental and economic gains.
- 3.4 The focus of the Vision is on ensuring a sufficient supply of minerals based on the principles of sustainable development. The Joint Minerals & Waste Plan will strive to ensure that minerals are available at the right time and in the right locations to support levels of growth in terms of new housing, commercial, industrial development and essential infrastructure; and that waste is managed near to where it is produced and in accordance with the waste hierarchy. The Joint Minerals & Waste Plan will seek to provide for future minerals and waste needs; conserve local resources; maximise the recovery of waste; provide local jobs; and protect and improve the environment.
- 3.5 The following is the proposed Vision for the Joint Minerals & Waste Plan:

Vision for Central & Eastern Berkshire

In recognition of the importance of the area as a source of minerals, the Central & Eastern Berkshire Authorities will aim to ensure the maintenance of a steady and adequate supply of minerals, whilst maximising the contribution that minerals development can bring to local communities, the economy and the natural environment.

Waste will be managed in a sustainable way, in accordance with the waste hierarchy. We will work in collaboration with others to ensure the best environmental solution to waste management is delivered.

The Plan will also ensure that the full extent of social, economic and environmental benefits of minerals and waste development are captured, contributing to Central and Eastern Berkshire's economic activity and enhancing quality of life and living standards within the area, whilst minimising impacts on the natural environment.

Strategic Plan Objectives

3.6 The purpose of the strategic objectives is to assist in the delivery of the Spatial Vision and provides the context and overall direction of the Plan.

- 1) To strike a balance between the demand for mineral resources, waste treatment and disposal facilities and the need to protect the quality of life for communities, the economy and the quality and diversity of environmental assets, by protecting the environment and local communities from negative impacts;
- 2) To protect community health, safety and amenity in particular by managing traffic impacts, minimising the risk from flooding and reduction in water quality, ensuring sustainable, high quality and sensitive design and layout, sustainable construction methods, good working practices and imposing adequate separation of minerals and waste development from residents by providing appropriate screening and/or landscaping and other environmental protection measures;
- 3) To ensure minerals and waste development makes a positive contribution to the local and wider environment, and biodiversity, through the protection and creation of high quality, resilient habitats and ecological networks and landscapes that provide opportunities for enhanced biodiversity and geodiversity and contribute to the high quality of life for present and future generations;
- 4) To help mitigate the causes of, and adapt to, climate change by; developing appropriate restoration of mineral workings; prioritising movement of waste up the waste hierarchy; reducing the reliance on landfill; maximising opportunities for the re-use and recycling of waste; and facilitating new technologies to maximise the renewable energy potential of waste as a resource;
- 5) To encourage engagement between developers, site operators and communities so there is an understanding of respective needs. To consider the restoration of mineral sites at the beginning of the proposal to ensure progressive restoration in order to maximise environmental gains

and benefits to local communities through appropriate after uses that reflect local circumstance and landscape linkages;

- 6) To support the continued economic growth in Central and Eastern Berkshire, as well as neighboring economies by helping to deliver a steady and adequate supply of environmentally acceptable primary minerals and mineral-related products to support new development and key infrastructure projects locally through safeguarding mineral resources and allocating key sites;
- 7) To ensure sufficient primary aggregate is supplied to the construction industry from appropriately located and environmentally acceptable sources achieving a net reduction in 'mineral miles'. To encourage the production and use of good quality secondary and recycled aggregates, having regard to the principles of sustainable development,;
- 8) To protect key mineral resources from the unnecessary sterilisation by other forms of development, and safeguarding existing minerals and waste infrastructure, to ensure a steady and adequate supply of minerals and provision of waste management facilities in the future;
- 9) To safeguard facilities for the movement of minerals and waste by rail and encouraging the use of other non-road modes where these are available and more sustainable;
- 10) To drive waste treatment higher up the waste hierarchy and specifically to increase the re-use, recycling and recovery of materials, whilst minimising the quantities of residual waste requiring final disposal;
- 11) To encourage a zero waste economy whereby landfill is virtually eliminated (excluding inert materials) by providing for increased recycling and waste recovery facilities including energy recovery; and
- 12) To achieve a net reduction in 'waste miles' by delivering adequate capacity for managing waste as near as possible to where it is produced.

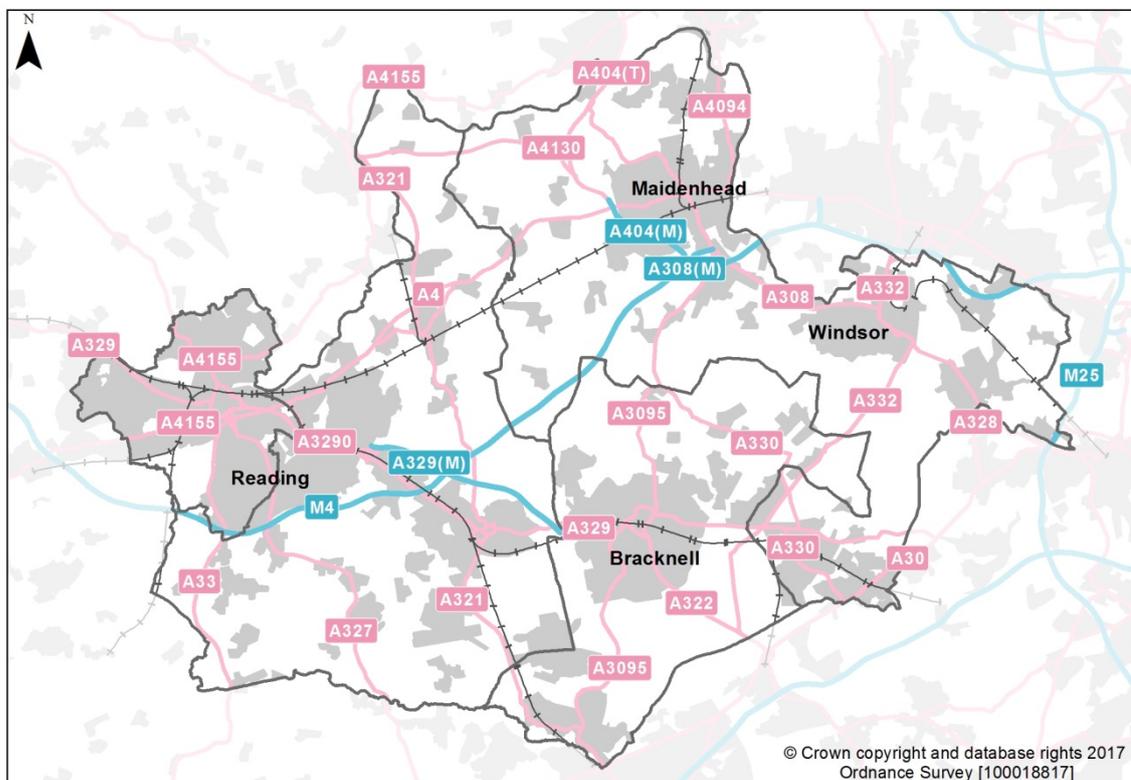
Spatial Strategy

- 3.7 The Spatial Strategy is informed by the Vision and Strategic Objectives of the Plan. It outlines the spatial approach that the Central & Eastern Berkshire Authorities will take to critical minerals and waste issues. The Central & Eastern Berkshire Authorities have, and will continue to, work collaboratively with other

bodies and partners²⁵. This will ensure that strategic priorities across local boundaries are, and will continue to be, properly coordinated and clearly reflected in this Plan, any subsequent review of this Plan, and other individual Local Plans.

3.8 Central and Eastern Berkshire is characterised by both its urban and rural nature, with the key towns of Reading, Wokingham, Bracknell, Windsor and Maidenhead, alongside large areas of countryside with smaller settlements and villages. It is also crisscrossed by significant transport corridor routes in the form of the M4, A33, A404, A329(M), A322 and the Great Western Mainline rail route from Bristol Temple Meads to London Paddington, and the Reading to London Waterloo line (see Figure 3).

Figure 3: Strategic Transport Routes in Central and Eastern Berkshire



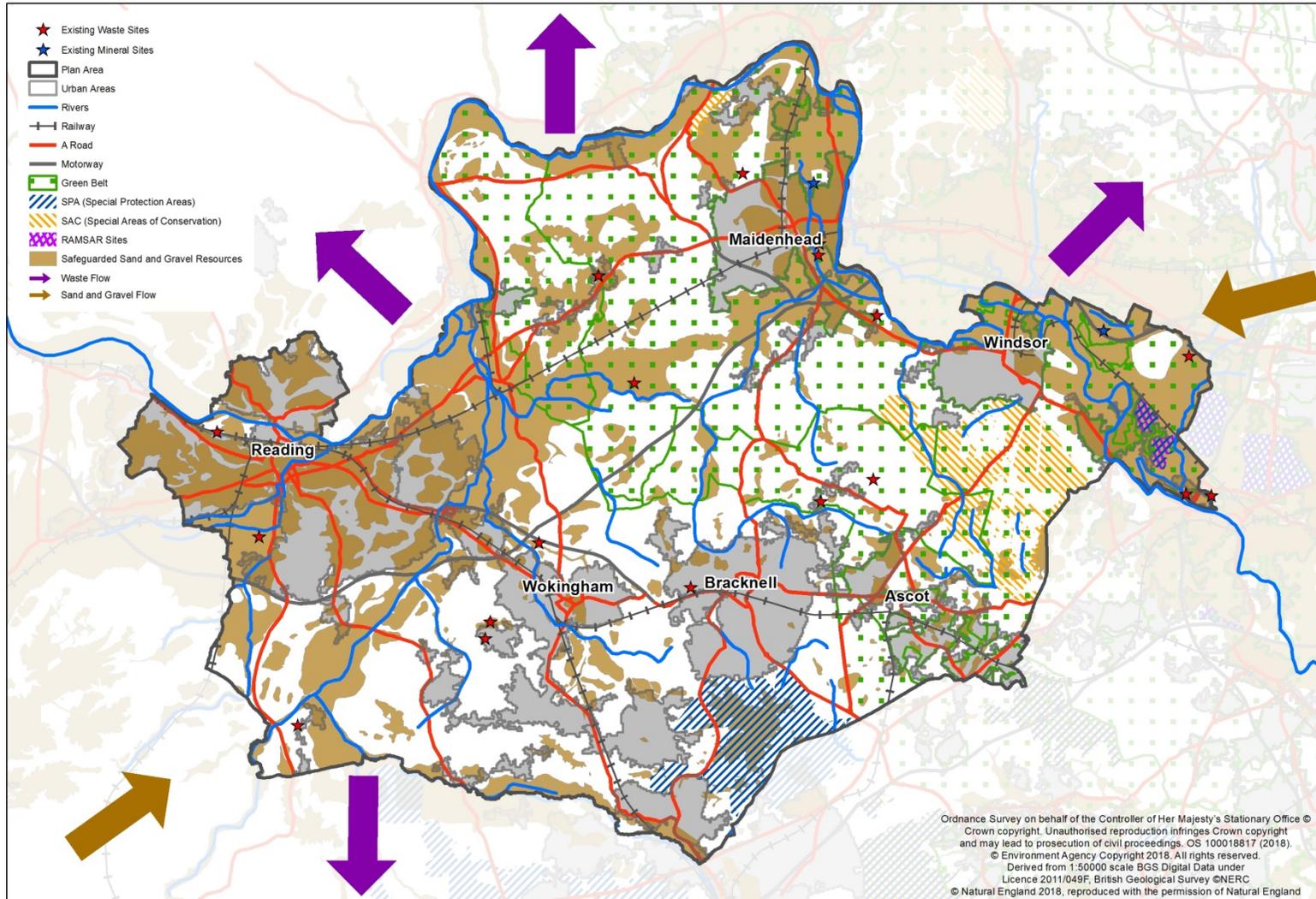
3.9 These characteristics continue to be vital building blocks in the area's buoyant economy; they unite the constituent local authority areas and will be a key element of the strategic spatial approach. Accordingly, the delivery of any minerals and waste development in Central and Eastern Berkshire will need to be sympathetic to the existing situation, minimising the impacts of development and maximising the benefits.

²⁵ Duty to Cooperate Statement (June 2018) – www.hants.gov.uk/berksconsult

- 3.10 The unitary authorities of Bracknell Forest, Windsor and Maidenhead, and Wokingham are also characterised by a considerable area of Green Belt, which covers large areas of these authorities outside of the existing built up area.
- 3.11 Central and Eastern Berkshire is located at the heart of the economic powerhouse of the United Kingdom. It is within the Thames Valley Berkshire Local Enterprise Partnership (LEP), prominent within the South East and is adjacent to London. As a result, and in line with the Thames Valley LEP Strategic Economic Plan, the wider Thames Valley will be subject to major growth pressures on a local and national level throughout the Plan period. Future growth requirements will play a key role in forming the spatial strategy for Central and Eastern Berkshire, as well as the wider Thames Valley region.
- 3.12 The area's importance is highlighted by its relatively close proximity to two Nationally Significant Infrastructure Projects; the High Speed 2 rail link from London to the North and the recently announced Heathrow expansion plans (subject to consultation). These projects significantly increase the regional and national demand for construction aggregates, as well as for construction waste treatment and recycling.
- 3.13 In addition a steady, adequate supply of aggregate will be required to support the drive for increased housebuilding in the area as well as supporting infrastructure such as roads schools and commercial premises. The projects will also impact future requirements for waste management through increased numbers of households and businesses as well as the production of construction wastes.
- 3.14 The Spatial Strategy, in delivering the Vision and Objectives of the Plan, is based on a number of principles. These principles form the basis of sustainable development, and the delivery aspect of the Plan, such as site allocations, must adhere to these principles:
- i. Respond to the needs of communities and the economy by taking decisions that account for future generations, whilst enhancing the quality of life, health and wellbeing and living conditions of today's residents;
 - ii. Promote the sustainable management of mineral resources;
 - iii. Ensure the efficient use of materials and promote the sustainable use and disposal of resources, particularly recycled and secondary aggregates, while mitigating and adapting to climate change;
 - iv. Protect the environment and the character of localities by maintaining/improving the built and natural environment of the area, mitigating the effect of new development on the environment;
 - v. Maintain the distinct and separate identity of the area's settlements;

- vi. Maintain and enhance supporting infrastructure, including roads and railways;
- vii. Deliver minerals and waste infrastructure in locations that are acceptable and meet the needs of the community;
- viii. Limit development in those areas at most risk of flooding and pollution, making it safe without increasing flood risk elsewhere if necessary;
- ix. Protect important areas for biodiversity, landscape and heritage from unacceptable forms of development;
- x. Ensure good design which is in keeping with the area; and
- xi. Take account of the public's views following consultation and engagement in the context of national planning policies.

4. Key Diagram



5. Delivery Strategy for Minerals

Minerals in Central and Eastern Berkshire

- 5.1 Until the 20th Century, chalk and clay were the main minerals produced in the area, generally to meet local needs. Chalk and clay continue to be extracted as a by-product at sand and gravel quarries, but now on a very small scale in comparison to previous times.
- 5.2 The chalk is now mainly used as agricultural lime, and sometimes as ‘fill’ material for civil engineering projects. The clay was formerly used chiefly for brick and tile making, but today its main use is as part of the lining for waste landfill sites to prevent the spread of pollution and for other engineering applications.
- 5.3 Since the Second World War, the main type of minerals production in Berkshire has been of aggregates for the construction industry, which comprises sands and gravels. Substantial quantities of aggregate minerals are needed for all construction work – in the building or renovation of houses, schools, hospitals, roads and so on.
- 5.4 Quarrying of aggregates in Berkshire has been focussed on the sharp sand and gravel deposits in the Kennet Valley, and between Reading and Newbury. Additionally, there are concentrations of past and active workings to the north and south of Maidenhead and south of Slough. Most aggregate is processed by the operator, either on-site or at central processing facility nearby and sold direct for use in the construction industry.
- 5.5 This section sets out the policies relating to the following issues:
- Managing the supply of aggregate;
 - Safeguarding minerals resources, and minerals infrastructure;
 - The locations for extraction;
 - Provision of non-aggregate minerals; and
 - Ancillary development.
- 5.6 All policies include an explanation of the existing situation, supporting text regarding the policy and details on how the policy would be implemented and monitored.

Sustainable mineral strategy

- 5.7 Minerals make a significant contribution to the nation's prosperity and quality of life, and aggregates are needed to build local communities and maintain existing ones.
- 5.8 The supply of minerals to Central and Eastern Berkshire comprises imports of crushed rock, marine-won and land-won sand and gravel, recycled aggregate as well as locally-won sand and gravel.
- 5.9 Data on the consumption of aggregates (the types of mineral used by the construction industry) as well as the movements of aggregates (imports and exports) is recorded on a Berkshire-wide level rather than by each mineral planning authority. This data is published by the Ministry of Housing, Communities and Local Government (MHCLG) every four years as part of the Aggregate Mineral survey for England and Wales undertaken by the British Geological Survey (BGS) (see Table 1).

Table 1: Total sales, exports and imports and consumption of Primary Aggregate in Berkshire, 2009 and 2014

Aggregate	2009					2014				
	Sales (A)		Consumption (B)		A as % B	Sales (A)		Consumption (B)		A as % B
	'000 tonnes	%	'000 tonnes	%		'000 tonnes	%	'000 tonnes	%	
Land-won sand and gravel	840	100%	807	45%	104%	1,051	100%	601	31%	174%
Marine-won sand and gravel	-	-	98	6%	n/a	-	-	152	8%	n/a
Crushed rock	-	-	875	49%	n/a	-	-	1,161	61%	n/a
Total	840	100%	1,780	100%	47%	1,051	100%	1,913	100%	56%

Source: Collation of the results of the 2009 and 2014 Aggregate Minerals survey for England & Wales.

- 5.10 The comparison of 2009²⁶ and 2014²⁷ data in Table 1 indicates a trend for a reduction in consumption of land-won sand and gravel but an increase in sales. Consumption of marine-won sand and gravel and crushed rock have increased – both of which are imported aggregates.

²⁶ Collation of the results of the 2009 Aggregate Minerals survey for England and Wales - www.gov.uk/government/uploads/system/uploads/attachment_data/file/6366/1909597.pdf

²⁷ Collation of the results of the 2014 Aggregate Minerals survey for England and Wales - www.gov.uk/government/uploads/system/uploads/attachment_data/file/563423/Aggregate_Minerals_Survey_England_Wales_2014.pdf. The 2014 survey was delayed due to DCLG funding reviews.

- 5.11 This shows an overall increase in supply of aggregate to Berkshire. There is no evidence to suggest that this does not reflect the situation in Central and Eastern Berkshire. Unfortunately, comparable data is not available for 2005 and the short time period does not suggest a reliable trend particularly taking into account the recession.
- 5.12 Nationally, the sales of primary aggregates have shown a general trend of decline with sales in England falling from 207,772 thousand tonnes per annum (tpa) in 1973 to 122,864 tpa in 2014²⁸.
- 5.13 However, there have been signs of recovery with a 25% increase in primary aggregate sales between 2009 and 2014 in Berkshire which reflects the situation in the South East²⁹.
- 5.14 Soft sand is found in Central and Eastern Berkshire but the deposits are variable. As a result, reliable information about the distribution of commercial reserves of soft sand is not available. This situation reflects the fact that there have been no operational soft sand quarries in over 10 years and only a small level of incidental extraction.
- 5.15 Soft sand is currently being supplied by mineral planning authorities outside of the Plan area. Soft sand supply in the South East is recognised as an issue by the South East England Aggregate Working Party (SEEAWP). The mineral planning authorities in the South East are working collectively to understand how supply maybe met more widely as the resource becomes increasingly scarce.
- 5.16 It is understood that the demand for soft sand in Central and Eastern Berkshire during the Plan period could be in the region of 1.5 million tonnes (0.08 million tonnes per annum)³⁰.
- 5.17 Recycled and secondary aggregates can be used as a substitute for some land-won sharp sand and gravel extraction, providing a more sustainable source of supply. These have combined benefits of reducing the need for land

²⁸ Collation of the results of the 2014 Aggregate Minerals survey for England and Wales (BGS, DCLG, LCGW, 2016) – Table D1 -

www.gov.uk/government/uploads/system/uploads/attachment_data/file/563423/Aggregate_Minerals_Survey_England_Wales_2014.pdf

²⁹ Collation of the results of the 2014 Aggregate Minerals survey for England and Wales (BGS, DCLG, LCGW, 2016) -

www.gov.uk/government/uploads/system/uploads/attachment_data/file/563423/Aggregate_Minerals_Survey_England_Wales_2014.pdf

³⁰ Minerals: Background Study (June 2018) – www.hants.gov.uk/berksconsult

won (or marine aggregate) and reducing the amount of waste requiring disposal by landfill.

- 5.18 When used locally, recycled aggregate can reduce the impact of transport and cut carbon emissions.
- 5.19 There is no reliable or comprehensive data on production or use of recycled aggregates. Historically, production and sales of recycled and secondary aggregate have been recorded on a Berkshire county-wide level. Sales of recycled and secondary aggregate in Berkshire from 2013 suggest an overall increase in sales (see Table 2). This follows a similar trend to that for the South East from the period 2013 to 2016.

Table 2: Sales of recycled and secondary aggregate in the South East and Berkshire (thousand tonnes)

	South East Sales	Berkshire Sales	Berkshire Sales % of South East Sales
2013	3,700	406	11 %
2014	3,628	408	11%
2015	4,223	400	9%
2016	4,034	498	12%
4 Year Average	3,896	428	11%

Source: Aggregate Monitoring survey data and South East Aggregate Monitoring Report³¹

- 5.20 There are no known commercial resources of oil and gas in Central and Eastern Berkshire. Whilst there is coal present within the Plan area, this resource is not currently prospective for exploitation.
- 5.21 Other minerals include chalk and clay. Neither of these minerals is currently being extracted for an industrial purpose.
- 5.22 There are a number of supply options available to Central and Eastern Berkshire and there is a need for this to be supported to allow for flexibility in demand and changes in market. Therefore, the Central & Eastern Berkshire Authorities will plan to provide for minerals of the right type, in the right place and at the right time.

³¹ South East Aggregate Monitoring Report 2016 - <http://documents.hants.gov.uk/SEEAWP17-04AggregatesMonitoringReport2016.pdf>

Policy M1
Sustainable minerals development strategy

The long term aims of the Plan are to provide and/or facilitate a sustainable supply of minerals to meet the needs of Central and Eastern Berkshire in accordance with all of the following principles:

- a) Work with relevant minerals planning authorities to maintain the supply of aggregate not available within Central and Eastern Berkshire;
- b) Deliver and/or facilitate the identified aggregate demand requirements (Policy M3);
- c) Facilitate the supply of mineral to meet local demands (Policy M6);
- d) Be compliant with the spatial strategy for minerals development (Policy M4).

Implementation

5.21 The Central & Eastern Berkshire Authorities will work jointly in planning for the provision of minerals that serve the wider Plan area. They will also work closely with relevant mineral planning authorities to plan for the provision of aggregates from outside of the Plan area that supply Central and Eastern Berkshire. This will be established through Statements of Common Ground.

5.22 Statements of Common Ground will be reported annually through the ‘duty to cooperate’ to ensure the issues outlined are still relevant.

5.23 The spatial strategy for minerals development is outlined in Policy M4 which includes allocated sites and locational criteria for new aggregate provision.

Monitoring

5.24 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Effective engagement with relevant mineral planning authorities.	Up-to-date Statement of Common Ground and annual ‘duty to cooperate’.	n/a

Safeguarding Mineral Resources

- 5.25 Minerals are a valuable but limited resource that can only be won where they naturally occur. Safeguarding of viable or potentially viable mineral deposits from sterilisation by surface development is an important component of sustainable development. Safeguarding means taking a long-term view to ensure that sufficient resources will be available for future generations, and importantly, options remain open about where future mineral extraction might take place with the least environmental impact. Government policy³² is that planning authorities should make every effort to safeguard mineral deposits that are or may become of economic importance against other types of development by defining Mineral Safeguarding Areas (MSAs) in their plans.
- 5.26 Safeguarding minerals of economic importance in Central and Eastern Berkshire will be defined by Mineral and Waste Safeguarding Areas (MWSA) and will be achieved by ensuring that development is steered elsewhere, or that extraction of the underlying minerals takes place prior to development proceeding.
- 5.27 In Central and Eastern Berkshire, clay and chalk are only extracted for local needs and not considered of sufficient importance to warrant safeguarding. The key mineral deposit in Central and Eastern Berkshire is sand and gravel. The deposits of sand and gravel, although widespread, are relatively shallow, and their location often closely coincides with existing settlement patterns. As such, there is a strong potential for new surface development to be proposed on or close to these important mineral deposits.
- 5.28 For these reasons, it is particularly important to have a firm framework for the safeguarding of sand and gravel resources which are or could be of potential importance. These local factors together with the consideration that the extraction of sand and gravel does not require blasting, and the material can often be processed elsewhere allow a widespread approach to safeguarding to be adopted in Central and Eastern Berkshire in order to meet the obligation set out in government policy.
- 5.29 The geological deposits in which soft sand is found are much more variable than deposits of sharp sand and gravel. As a result, information about the distribution of commercial reserves of soft sand is not available.
- 5.30 A number of neighbouring areas contain soft sand resources including West Berkshire, Hampshire, Surrey, Buckinghamshire and Oxfordshire. There are

³² National Planning Policy Framework (Para. 143) -

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

also soft sand resources within the wider South East, most notably Kent and West Sussex. However, a number of authorities have a significant proportion of their soft sand resources located within Areas of Outstanding Natural Beauty (West Berkshire and Surrey) or within the South Downs National Park (Hampshire and West Sussex).

- 5.31 The presence of such designations restricts the availability of soft sand resources in these areas. As such, soft sand supply issues may occur in the near future, in particular in the wider region (West Berkshire, Hampshire, Surrey and West Sussex) as resources outside of the designated areas deplete.
- 5.32 Central and Eastern Berkshire is already dependent on soft sand supplies from outside of the Plan area. Therefore, securing future supplies may become more of an issue as other mineral planning authority areas seek to source their supplies from elsewhere (outside of designated areas). As such, it is considered that special consideration should be given to deposits of soft sand where they are identified.
- 5.33 It is important to note that there is no automatic presumption that planning permission for the winning and working of sand and gravel will be granted in MWSAs.

Policy M2

Safeguarding sand and gravel resources

Sharp sand and gravel and soft sand resources of economic importance, and around active mineral workings, are safeguarded against unnecessary sterilisation by non-minerals development.

Safeguarded mineral resources are defined by the Minerals and Waste Safeguarding Area illustrated on the Policies Map and a list of safeguarded sites will be maintained.

Non-minerals development in the Minerals and Waste Safeguarding Area may be permitted if it can be demonstrated that the option of prior extraction has been fully considered as part of an application, and:

- i. Prior extraction is maximised taking into account site constraints and phasing of development; or
- ii. It can be demonstrated that the sterilisation of mineral resources will not occur; or
- iii. It would be inappropriate to extract mineral resources in that location, with regard to other policies in the Local Development Plan.

Implementation

5.34 The extent of MWSA will be based on information about aggregate sand and gravel resources from the British Geological Survey and other sources of geological information, plus existing mineral working permissions and the nature and duration of the operations. In some instances the MWSAs will apply to sand and gravel deposits beneath existing urban areas. This is so that the existence of the sand and gravel and the possibility for prior extraction is taken into account when proposals for large scale redevelopment are considered. The broad extent of sand and gravel resources to which the MWSA will apply are shown on the Key Diagram.

5.35 This does not necessarily mean that other forms of development should not take place where sand and gravel deposits occur, but it does mean that developers will need to show that the sand and gravel deposit has no commercial value, or that they have fully explored the use of the underlying sand and gravel in preparing their development proposals. Alternatively the policy approach includes provision for temporary developments, and for projects of overriding importance in the Central & Eastern Berkshire Authorities' Local Plans to proceed where this can be demonstrated.

- 5.36 In assessing development proposals within the MWSA, the Central & Eastern Berkshire Authorities will have regard, amongst other things, to the size and nature of the proposed development, the availability of alternative locations and the need for phasing of the proposed development. Account will also be taken of the quantity and quality of the sand and gravel that could be recovered by prior extraction and the practicality and environmental impacts of doing so. A minimum plot size of 3 hectares³³ will apply in the safeguarding process to avoid repeated consideration of prior extraction where this can be assumed to be uneconomic, due to the small size of the parcels of land involved.
- 5.37 The onus of assessing the case for the actual or potential commercial value of the underlying mineral deposit lies with the developer. It will be necessary for the developer to determine the depth and quality of sand and gravel deposits within the site. In order to demonstrate that prior extraction has been fully considered, the developer must undertake an assessment of the practicality of prior extraction, either for use in the development itself or elsewhere.
- 5.38 In considering the potential for prior extraction developers should consider whether the extraction of part of the sand and gravel deposit within the site can be undertaken, even if removal of the entire deposit appears impractical. This might apply, for example, in a case – perhaps on a site close to land liable to flood where the removal of the upper levels of the deposit could be undertaken, whereas the removal of the entire deposit would render the land unsuitable without the importation of fill to raise the ground level above flood levels.
- 5.39 In considering proposals for prior extraction, it will also be important to ensure that the environmental impacts of the development are contained. In most cases, because of the shallowness of the layers of sand and gravel, and the fact that it can be extracted without blasting, it is not considered likely that the actual extraction operation will give rise to sufficient additional environmental effects over and above those of the development operation itself to preclude prior extraction.
- 5.40 It is expected that, as a minimum requirement, incidental recovery of sand and gravel as part of a non-minerals development will take place.

³³ See Minerals and Waste Safeguarding Study (June 2018) – www.hants.gov.uk/berksconsult

5.41 The NPPF also requires a Minerals Consultation Area (MCA) to be produced based on the MSA. The Central and Eastern Berkshire Authorities' Mineral and Waste Consultation Area (MWCA) includes a buffer of 250 metres around quarries and 50 metres around other mineral operations. The MWCA will be applied by the Central & Eastern Berkshire Authorities to determine whether they need to consult a neighbouring Mineral Planning Authority or each other on an application.

5.42 A list of safeguarded sites (operational and planned) will be maintained by the Central & Eastern Berkshire Authorities. This will be updated as permissions are granted and sites are completed and no longer require safeguarding.

Monitoring

5.43 Suggested Monitoring Indicator:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Mineral Safeguarding	Area (Hectares) of MWSA sterilised by non-minerals development.	n/a

Managing the supply of aggregate

5.44 The requirement under national guidance³⁴ is that minerals policies should make provision for ensuring a steady and adequate supply of aggregates for the construction industry and wider economy by means of maintaining a 'landbank'.

Local Aggregate Assessment

5.45 The Local Aggregate Assessment (LAA) reviews the demand and supply of aggregate in the area and is reported annually. The LAA contains:

- A forecast of demand for aggregates based on the rolling average of 10-years sales and other relevant local information. The 3-years sales data should also be reviewed as this may indicate an increase in future supply;
- Analysis of all supply options including land-won, marine-won (dredged) and recycled or secondary aggregate. Imports and exports of aggregate also need to be considered;
- An assessment of the local issues that may influence the situation such as environmental constraints or economic growth.
- If there is considered to be a shortage in supply, the conclusions needs to outline how this is to be addressed.

Landbank

5.46 A landbank is a stock of mineral planning permissions which together allow sufficient minerals to be extracted to meet a defined period at a given rate of supply. The landbank is recalculated each year and is then reported in the LAA. The landbank forms the basis on which provision for aggregate extraction is determined.

5.47 Landbanks are used as a monitoring tool by Mineral Planning Authorities to forecast whether a steady and adequate supply of aggregate can be maintained in their Plan area. If the landbank cannot be maintained, this can act as a trigger to highlight to the Mineral Planning Authorities that the existing sites are not sufficient and therefore, new permissions are required.

5.48 The NPPF³⁵ requires mineral planning authorities to make provision for the maintenance of a landbank of at least seven years for sand and gravel. Reserves of sand and gravel in Central and Eastern Berkshire with planning permission for extraction (permitted reserves) at 31st December 2016 were 6,919,000 tonnes.

³⁴ National Planning Policy Framework (Para. 145) -

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

³⁵ National Planning Policy Framework (Para. 145) -

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

- 5.49 Star Works Quarry in Wokingham Borough had a remaining soft sand reserve at the end of December 2016. However, the inactive quarry will require approval of working conditions before any extraction can proceed, and therefore it cannot be included in the total permitted reserves.
- 5.50 Total permitted reserves are therefore 6,723,000 tonnes. Based on the 10 year average sales of 555,163 tonnes, the landbank for sand and gravel sites within Central and Eastern Berkshire is 12.1 years. However, based on a 3-year average this decreases to **9.4 years** which is not far from the required 7 year provision set out in the NPPF. The 3-year average is also likely to reflect the increase in demand suggested by recent sales figures. Therefore, the Central and Eastern Berkshire – Local Aggregate Assessment for the period 2016, determined the expected Provision Rate as for the Plan period as 0.71 million tonnes³⁶.
- 5.51 The proposed Plan period is up to 2036. If the LAA rate is projected forward from 2016 to 2036 a total of **14,243,380 tonnes** of sharp sand and gravel would be required over the course of the Plan. Taking into account that current permitted reserves for Central and Eastern Berkshire are 6,723,000 tonnes (not including Star Works Quarry). This means that there is a requirement of **7,520,380 tonnes** of sharp sand and gravel.
- 5.52 It is recognised that a change in local circumstances will have an impact on demand and therefore, the landbank. The proposed expansion at Heathrow Airport, subject to ongoing consultations, is such an example which would create a local increase in demand for aggregate. However, there is currently a significant level of uncertainty over the proposals at Heathrow with regard to timings and construction methods which would influence demand. Therefore, it is accepted that the provision rate may change over the Plan period in order to maintain the landbank and a steady and adequate supply of aggregate.

Policy M3

Sand and gravel supply

Provision will be made for the release of land to allow a steady and adequate supply of sand and gravel for aggregate purposes in Central and Eastern Berkshire at an average rate of 0.71 million tonnes a year to 2036, subject to the impact of local circumstances on demand.

A landbank of permitted reserves for the winning and working of sharp sand and gravel sufficient for at least 7 years' supply will be maintained through the Plan period.

³⁶ Central and Eastern Berkshire: Local Aggregate Assessment 2017 – www.hants.gov.uk/berksconsult

Implementation

- 5.53 The policy seeks to ensure a steady and adequate supply of sand and gravel during the Plan period and maintain at least 7 years of permitted reserves.
- 5.54 Annual monitoring will be undertaken by the Central & Eastern Berkshire Authorities to ensure that, if required, permissions can be granted for mineral extraction before the landbank falls below 7 years.
- 5.55 It should be noted that the mineral extraction sites have been identified as locations where planning permission is most likely be granted to maintain the landbank and policies to ensure that extraction in these locations and others, likely to come forward during the course of the Plan do not have a significant impact. However, the Central & Eastern Berkshire Authorities cannot dictate that acceptable applications are submitted and the required level of production is maintained.
- 5.56 It is recognised that the landbank can only be maintained if industry comes forward with planning applications in acceptable locations. The implementation of Policy M3 is therefore, reliant on the aggregate industry as well as the Central & Eastern Berkshire Authorities as the relevant Minerals Planning Authority.
- 5.57 The effectiveness of the policy will need to be carefully monitored to ensure that changes in local circumstances are reflected in any future provision rate. However, it should also be recognised that these changes maybe time-limited due to their association with specific large-scale infrastructure projects such as Heathrow, rather than a long-term trend.

Monitoring

- 5.58 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Steady and Adequate Supply	Sand and gravel sales fail to achieve provision rate.	Breach over 3 consecutive years.
	Sand and gravel sales exceed provision rate.	Breach over 3 consecutive years.
	Landbank falls below 7 years worth of permitted reserves.	Breach over 5 consecutive years.

Locations for sand and gravel extraction

- 5.59 There are a number of existing sites which currently extract sharp sand and gravel. There are no soft sand sites but there has been incidental soft sand extraction and a former soft sand quarry which has not been operational for a number of years. These sites have a role in the supply of sand and gravel during the Plan period.
- 5.60 Star Works is inactive but retains approved soft sand reserves. The site now forms a landfill which is due to close in the near future and there are no plans to extract the remaining reserves.
- 5.61 Poyle Quarry, located in the Royal Borough of Windsor & Maidenhead, has not been worked for approximately 10 years and therefore, has not been considered as permitted reserves. The planning permission at this quarry expired in December 2015 but a new application has been recently submitted³⁷.
- 5.62 In August 2015, planning permission was granted for a quarry at Datchet's Riding Court Farm. The quarry, to be operated by CEMEX, commenced production in 2017 and therefore, is not included in the sales figures for 2016.
- 5.63 There is a requirement to provide **7,520,380 tonnes** of sharp sand and gravel during the Plan period. As such, there is a need to identify sites for local land-won aggregate.
- 5.64 The new sites identified in Policy M4 have been nominated by industry and have been assessed to be appropriate for development subject to the relevant development considerations outlined in Appendix A.
- 5.65 The exact timings of sites coming forward will depend on the market conditions, extraction rates at existing sites and planning permission being granted.
- 5.66 Despite new site allocations, there is still likely to be a shortfall in supply towards the back of the Plan period (2030+). The aggregate industry has not identified sites to plug this gap at present. The minerals industry is market-led and it recognised that there is likely to be a need for future requirements, particularly in light of major infrastructure projects in the area such as the proposed Heathrow expansion. In order to provide flexibility in supply and to allow industry to bring forward appropriate sites, Policy M4 (4) outlines a contingency approach to ensure that the landbank is maintained and therefore a steady and adequate supply.

³⁷ Planning Application Reference: 17/03426/FUL

Policy M4

Locations for sand and gravel extraction

A steady and adequate supply of locally extracted sand and gravel will be provided by:

1. The extraction of remaining reserves at the following permitted sites:
 - a. Horton Brook Quarry, Horton
 - b. Riding Court Farm, Datchet
 - c. Sheephouse Farm, Maidenhead
2. Extensions to the following existing sites:
 - a. Poyle Quarry, Horton
3. The allocation of the following sand and gravel sites:
 - a. Poyle Quarry, Horton
 - b. Bridge Farm, Arborfield
 - c. Water Oakley, Holyport
 - d. Ham Island, Old Windsor
4. Proposals for new sites not outlined in Policy M4 (1, 2 and 3) will be supported, in appropriate locations, where:
 - a. They are needed to maintain the landbank; and/or
 - b. They maximise opportunities provided by existing infrastructure and available minerals resources; or
 - c. At least one of the following applies:
 - i. The site contains soft sand;
 - ii. The resources would otherwise be sterilised; or
 - iii. The proposal is for a specific local requirement.

Implementation

5.67 Appropriate locations for new sites will be determined through applications and consideration of the relevant Development Management Policies.

5.68 Landbanks can be used as an indicator for whether additional provision needs to be made for new aggregate extraction. Applications for extraction of sand and gravel will not necessarily be refused if the landbank stands at over 7 years. The NPPF³⁸ states that provision should be made to maintain the

³⁸ National Planning Policy Framework (para. 145) -

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

landbank at 'at least' 7 years for sand and gravel. However, consideration should also be given to the productivity of existing sites and the need to ensure that large landbanks are not bound to only a few sites which could lead to the stifling of competition.

- 5.69 Conversely if the overall landbank of aggregates at the time of an application for mineral extraction stands at less than 7 years, this does not mean that an application will inevitably be approved. Government guidance confirms that landbank policies do not remove the discretion of Mineral Planning Authorities to refuse applications which are judged to have overriding objections. Whilst Mineral Planning Authorities should use the size of the landbank as an indicator for when new permissions for extraction of aggregates are likely to be needed, consideration should be given to the remaining allocations and policies in the Plan.
- 5.70 The acceptability of extending existing quarries will be assessed on a case-by-case basis and will include the assessment of cumulative impacts which may be associated with continued working and other economic considerations such as market areas.
- 5.71 Proposals to extend existing sites will only be supported where past performance of the existing operations has been adequately demonstrated.
- 5.72 A specific local requirement may include beneficial uses where the primary purpose for its extraction is not for the mineral and it takes place to support other non-mineral developments in a given location e.g. creation of agricultural reservoirs, recreational lakes or borrow pits for a special localised need.
- 5.73 Although borrow pits are not generally supported, there are some circumstances where they are the sustainable way of providing aggregates for another planned local development project such as the construction of new roads or major built development. This is particularly likely to be the case where a borrow pit would minimise the potential impacts on local communities and the environment. Borrow pits can help to safeguard resources of higher-grade material for primary uses. Proposals for borrow pits will only be permitted where there is a clearly identified need, where the aggregate extracted is for use only within the specific construction projects in which it is related to, and the site is located on land surrounding the construction project, within a 'corridor of disturbance' which would be determined on a case-by-case basis.
- 5.74 Significant infrastructure projects such as the Heathrow expansion proposal are likely to require borrow pits. Where possible, these sites should be identified in

the Joint Minerals & Waste Plan to enable development considerations to be established. These can then be taken into consideration in the delivery of the Nationally Significant Infrastructure Project.

Monitoring

5.75 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Sand and gravel supply	Landbank falls below 7 years worth of permitted reserves.	Breach over 5 consecutive years.

Supply of recycled and secondary aggregates

- 5.76 Recycled aggregates are those derived from construction, demolition and excavation activities that have been reprocessed to provide materials or a product suitable for use within the construction industry. It includes materials such as soils and subsoil, concrete, brick or asphalt for re-use that would otherwise be disposed. On the other hand secondary aggregate are usually by-products of other construction or industrial processes. For example, Incinerator Bottom Ash (IBA) at energy recovery facilities is a by-product of the incineration process that can be processed into a secondary aggregate for road construction. Other secondary aggregates include spent railway ballast, recycled glass, plastics and rubber (tyres).
- 5.77 Highway maintenance work has the potential to comprise a relatively large source of recycled aggregate through recycled road planings, asphalt, concrete kerbs and soils.
- 5.78 A significant amount of recycled and secondary aggregate is processed on development and construction sites, but an increasingly large amount is processed at free standing sites or sites located within existing minerals and waste activities such as mineral extraction, waste transfer, materials recovery and landfilling.
- 5.79 There is no secondary aggregate produced within Central and Eastern Berkshire.
- 5.80 National policy requires the 'contribution that substitute or secondary and recycled materials can make to the supply of materials to be taken into account, before considering extraction of primary materials'³⁹. The Central & Eastern Berkshire Authorities do not control how much aggregate is recycled, but can enable and encourage recycling facilities to meet demand.
- 5.81 It is estimated that, based on operator returns to the Aggregate Monitoring survey and Environment Agency permits, the recycling capacity for aggregate in 2016 was 380,000 tonnes. However, due to the temporary nature of the operations and the reality of operations taking place at the sites, the capacity is likely to be more in the region of 10-50,000 tonnes. The operations will be safeguarded (see Policy M8) and the capacity should be considered as a minimum to be maintained.

³⁹ National Planning Policy Framework (Para. 143) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Policy M5

Supply of recycled and secondary aggregates

Recycled and secondary aggregate production will be supported, in appropriate locations, to encourage investment and infrastructure to maximise the availability of alternatives to local land-won sand and gravel.

The supply of recycled aggregate will be provided by maintaining a minimum capacity of 0.05 million tonnes during the life of the Plan.

Implementation

- 5.82 Given the urbanised nature of much of Central and Eastern Berkshire and the level of redevelopment implied in its future development plans, the main source of non-primary aggregates will be recycled aggregates. It will therefore be important that adequate recycling facilities are available to enable aggregates to be recovered from construction and demolition waste.
- 5.83 Identifying appropriate locations for the additional recycling facilities will be a challenging process but guided by the location criteria in Policy W4. Some recycling capacity can be provided by mobile plant operating on construction sites, but further permanent facilities will be necessary.

Monitoring

- 5.84 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Aggregate recycling capacity	Aggregate production capacity reduced by more than 5000 tonnes (10%).	Breach over 2 consecutive years

Energy minerals

Oil and Gas

- 5.85 Oil and gas are nationally important mineral resources and it is government policy that exploration should be supported and resources exploited subject to environmental considerations.
- 5.86 Oil and gas resources (known as ‘hydrocarbons’) are classed as either ‘conventional’ or ‘unconventional’. Conventional resources are situated in relatively porous sandstone or limestone rock formations. Unconventional sources are found where oil and gas has become trapped within the shale rock itself and did not form traditional conventional reservoirs.
- 5.87 As shale is less permeable (or easily penetrated by liquids or gases), it requires a lot more effort to extract the hydrocarbons from the rock. However, recent technological advancements have resulted in horizontal drilling which has made tapping into shale deposits more financially viable.
- 5.88 Hydraulic fracturing (sometimes referred to as ‘fracking’) is a technique used in the extraction of oil or gas from shale rock formations by injecting water at high pressure. This process has caused some controversy. However, the government’s position is that there is a pressing need to establish (through exploratory drilling) whether or not there are sufficient recoverable quantities of unconventional oil and gas present to facilitate economically viable full scale production.
- 5.89 There are no known commercial resources of oil and gas in Central and Eastern Berkshire, although viable conventional resources of oil and gas have been identified and are being exploited in neighbouring counties, such as Hampshire.
- 5.90 Oil and Gas licences are granted by the Oil and Gas Authority and confer rights for persons to search for, bore and produce petroleum resources. Oil and gas activity comprises a number of different stages including the exploration of oil and gas prospects, appraisal of any oil and gas found, production and distribution. The production and distribution of oil and gas usually involves the location of gathering stations which are used to process the oil and gas extracted. All stages require planning permission from the relevant mineral planning authority. The development of gathering stations requires more rigorous examination of potential impacts than exploration or appraisal.
- 5.91 There are currently no licence areas within Central and Eastern Berkshire. A former licence area within Windsor (PEDL 236) was relinquished in 2014.

- 5.92 There have also been two exploratory wells within the Central and Eastern Berkshire area but these were completed in 1966 and 1974 respectively.
- 5.93 The lack of a current licence area and the fact that earlier exploratory wells did not lead to further appraisal or production suggests that there is limited opportunities presently for the provision of oil and gas.
- 5.94 It is considered that should technology advances and more information on the geological conditions become available, and the situation changes; there is sufficient guidance within the NPPF⁴⁰ to determine any application for oil and gas.

Coal

- 5.95 There is a significant coal seam in West Berkshire which runs into the western edge of Central and Eastern Berkshire. It is deep underground and not considered to be viable for extraction. Due to the depth of the deposits, open cast mining would be impractical, and any exploitation would need to be by underground mining. The coals are present in a thin gas seam and the coal measures are considered as unprospective for coalbed methane.
- 5.96 As it is, at present, unlikely an application would come forward for coal extraction, it is considered that the NPPF⁴¹ would provide sufficient guidance on determining any such application.

⁴⁰ National Planning Policy Framework (most notably Para. 147) -

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

⁴¹ National Planning Policy Framework (most notably Para. 149) -

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

Other non-aggregates

Chalk

- 5.97 In Berkshire, chalk was of some local importance and the use of chalk for agricultural purposes dates back to Roman times.
- 5.98 The geological outcrops of chalk in Berkshire are fairly extensive, but demand for new workings is very limited.
- 5.99 The continuing demand for chalk as agricultural lime is very low. The last active chalk pit in Berkshire, at Pinkneys Green (Hindhay Quarry) near Maidenhead is currently being restored. Some of the chalk from this pit was also used as bulk fill.
- 5.100 Due to lack of demand for chalk for industrial processes there is no requirement to make 15 years provision of chalk (as cement primary) as outlined in the NPPF⁴². As such, no allocations for chalk extraction are required and any future proposals can be determined using Policy M6.

Clay

- 5.72 Common clay was one of the main minerals produced in Berkshire until the 20th century. The most important were the land clay pits of the Lambeth Group and some of these were worked for over 200 years.
- 5.73 Some clay is dug intermittently from deposits near Reading and elsewhere for use as bulk fill or for sealing sites which are to be filled with putrescible waste. These are generally 'one-off' operations, and there appears to be no demand for claypits to be established to serve these markets on a long term basis.
- 5.74 In the past, Berkshire had numerous small workings for clay for making bricks and tiles, but the mass production of bricks at much larger brickworks elsewhere in the region and the more general use of concrete tiles, has led to the closure of all the brick and tile works within the Berkshire area.
- 5.75 The last remaining brick and tile works was located at Knowl Hill, between Reading and Maidenhead. Although the site contains extensive permitted reserves of clay, the manufacture of bricks and tiles ceased during the 1990s. The site is now principally used as a landfill known as Star Works.

⁴² National Planning Policy Framework (Para. 146) – https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

- 5.76 There have not been any operational claypits permitted to support industrial processes for over 10 years.
- 5.72 Due to the lack of current brick and tileworks within Central and Eastern Berkshire, there is no requirement to make 25 years provision of brick-making clay as outlined in the NPPF⁴³. As such, no allocations for clay extraction are required to support the supply and any future applications can be addressed by Policy M6. However, demand for these minerals will be monitored in case demand increases and markets change.

Policy M6

Chalk and clay

Proposals for the extraction of chalk and clay to meet a local demand will be supported, in appropriate locations, subject to:

- i. The proposal not having an unacceptable impact on the environment and communities; and
- ii. There being no other suitable, sustainable alternative source of mineral available.

Implementation

- 5.101 Proposals for extraction of all non-aggregate minerals will be judged on their merits at the time of the application, with particular regard for chalk and clay as to whether the material concerned is needed to meet a specific local requirement.
- 5.102 For clay a local need or requirement would be defined as supplying a landfill site within Central and Eastern Berkshire or the immediate surrounding counties. Supply to landfill sites further afield would not be favoured because this implies transportation over greater distances. The policy does not seek to establish a maximum or guide distance because there is insufficient evidence available to define such a figure, and criteria may vary. However in practice it is considered unlikely that a proposal to supply a distant landfill would be promoted, because the practicalities of distance and alternative supplies closer to the point of use would preclude such proposals being commercially realistic. Similar considerations apply to the supply of chalk for production of agricultural lime.

⁴³ National Planning Policy Framework (Para. 146) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Monitoring

5.103 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Chalk extraction	Amount of chalk extraction in tonnes per annum.	Increase in demand over 5 years.
Clay extraction	Amount of clay extraction in tonnes per annum.	Increase in demand over 5 years.

Aggregate wharves and Rail Depots

- 5.104 Central and Eastern Berkshire has many close functional interrelationships with its neighbouring authorities. Mineral won and processed in Central and Eastern Berkshire are not necessarily used within the Plan area. Some are likely to be transported elsewhere and at the same time minerals, such as crushed rock which is not found within Central and Eastern Berkshire, are supplied from elsewhere.
- 5.105 All movements of mineral within the Plan area are undertaken by road as there are currently no aggregate rail depots or wharves within Central and Eastern Berkshire.
- 5.106 National policy encourages the use of sustainable transport⁴⁴. During the life of the Plan, opportunities to utilise navigable stretches of the Thames, or canals or waterways within Central and Eastern Berkshire for water-based transportation of minerals may arise.
- 5.107 Central and Eastern Berkshire is well connected by rail but it is dependent on rail depots located in neighbouring authorities – in particular the rail depots at Theale in West Berkshire. However, establishing aggregate rail depots is difficult due to the limited locations. Freight path capacity, including the timetabling for Crossrail, will also be a restricting factor in supply.
- 5.108 The Kennet & Avon Canal which joins Newbury and Reading is a small waterway and is not considered to have significant potential for freight movement⁴⁵. It is currently unknown whether the River Thames is suitable for freight from Windsor Bridge to Staines Bridge although large barges are able to use this waterway⁴⁶. However, this may be limited as the river is non-tidal from Teddington Lock.
- 5.109 The potential for a rail depot or aggregate wharf in the Plan area could reduce local road impacts, although the likelihood of this opportunity is dependent on a number of factors including location of minerals, connectivity and cost.

⁴⁴ National Planning Policy Framework (Para. 30) -

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

⁴⁵ WA Policy on Freight on Inland Waterways (2012) - www.waterways.org.uk/pdf/freight_policy

⁴⁶ The River Thames and Connecting Waterways 2013-2014 -

www.gov.uk/government/uploads/system/uploads/attachment_data/file/289796/LIT_6689_3e9c5e.pdf

Policy M7
Aggregate wharves and rail depots

Proposals for aggregate wharves or rail depots will be supported:

- 1) At Monkey Island Wharf, Bray; and
- 2) In appropriate locations with have good connectivity to:
 - a. The Strategic Road Network; and/or
 - b. The Rail network; and/or
 - c. Minerals infrastructure

Implementation

5.110 An aggregate wharf or rail depot proposal will need to be located in an appropriate location which accords with all relevant policies within the wider Development Plan.

5.111 In order to ensure that the proposal allows for the sustainable movement of materials, the site would need to have good connectivity to strategic transport infrastructure or minerals infrastructure such as a quarry or processing plant. Good connectivity is defined by Policy DM11.

Monitoring

5.112 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Aggregate rail depot capacity	Capacity (tonnes per annum).	n/a
Aggregate wharf capacity	Capacity (tonnes per annum).	n/a

Safeguarding other minerals development infrastructure

- 5.113 Safeguarding mineral infrastructure that supports the supply of minerals is just as important as safeguarding mineral resources. Safeguarding minerals infrastructure is a requirement of the NPPF⁴⁷ which states that the following types of infrastructure should be safeguarded:
- 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.
- 5.114 The NPPF also states that Mineral Planning Authorities should 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’.
- 5.115 A particular problem that mineral infrastructure faces is the encroachment of incompatible land uses, such as housing, into the locality which may give rise to additional complaints about the existing mineral operations. This may result in a hindrance to operations and restrictions placed on the mineral site which impacts on supply.
- 5.116 Safeguarding potential sites for rail depots and wharves prevents future decisions being made without consideration of potential minerals and waste interests on appropriate sites.
- 5.117 Safeguarding also allows the Central & Eastern Berkshire Authorities to resist other types of future development which could be incompatible with existing minerals infrastructure and operations.

⁴⁷ National Planning Policy Framework (Para. 143) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Policy M8

Safeguarding minerals infrastructure

Facilities for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material within the Plan area will be safeguarded for their on-going use.

Where this infrastructure is situated within a host quarry, wharf or rail depot, they will be safeguarded for the life of the host site.

Existing, planned and potential sites that enable the supply of minerals in Central and Eastern Berkshire will be safeguarded against development that would prejudice or jeopardise its operation by creating incompatible land uses.

Non-mineral development that might result in the loss of permanent mineral infrastructure may be considered in the following circumstances:

- a) The site is relocated with appropriate replacement capacity being provided within the Plan area; or
- b) New capacity is provided within the Plan area which allows for the closure of sites; or
- c) The requirements of the need for the alternative development are set out in the wider Development Plan and outweigh the need for safeguarding.

Implementation

5.118 Any existing or planned mineral operation including rail depot or wharf will be automatically safeguarded and a list of safeguarded sites will be maintained by the Central & Eastern Berkshire Authorities. Safeguarded minerals sites will be shown on the Minerals and Waste Safeguarding Area and associated Consultation Area.

5.119 New or replacement capacity would only be considered to satisfy the circumstances outlined in Policy M8 if the capacity is provided within the Plan area.

5.120 There may be circumstances where the continued safeguarding of the site may be undesirable due to potential redevelopment opportunities such as regeneration. In these cases, some circumstances may enable the release of existing safeguarded sites.

- 5.121 In cases where aggregate rail depots or aggregate wharves in other Minerals Planning Authority areas provide a supply of aggregate to Central and Eastern Berkshire and are under threat of losing their safeguarding status which would result in a loss of capacity, the Central & Eastern Berkshire Authorities will provide support to defend the safeguarding or support the replacement of the capacity.
- 5.122 Statements of Common Ground with relevant Mineral Planning Authorities will be maintained and reported annually through the 'duty to cooperate'. Support will be provided through information sharing, where relevant.

Monitoring

- 5.123 Suggested Monitoring Indicator:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Safeguarded mineral and waste sites.	Number of safeguarded minerals and waste sites developed for other development uses without replacement capacity > 0	n/a

6. Delivery Strategy for Waste

6.1 This section addresses the development principles, spatial strategy and waste capacity needs over the plan period for waste management within Central and Eastern Berkshire.

Waste in Central and Eastern Berkshire

- 6.2 Waste is produced by households, businesses, industry, construction activities, government and non-government organisations, in different quantities and with different characteristics based on local circumstances. The UK already contains a wide network of waste management facilities. However, changes in waste production and efforts to make the best use of the resources contained within waste mean that these facilities and the need for them are continually changing.
- 6.3 Waste Planning Authorities (WPAs) are obliged to prepare Local Plans which identify sufficient opportunities to meet the identified needs of their area for waste management for all waste streams⁴⁸. The review of waste properties enables its classification as non-hazardous, inert and hazardous.
- 6.4 Non-hazardous waste is produced mainly from both municipal solid waste (MSW) (sometimes referred to as 'household waste') and commercial and industrial waste (C&I) sources while inert wastes derive mainly from construction, demolition and excavation (CD&E) activities. Although a minor contribution to the overall arisings, hazardous waste is produced from all three waste sources.
- 6.5 Waste can be managed in different ways, but the waste (management) hierarchy (see Figure 4) is a framework that has become a cornerstone of sustainable waste management, setting out the order in which options for waste management should be considered based on environmental impact (with disposal as the lowest priority). Waste planning has a role to play in driving waste 'up the hierarchy' by ensuring the right amount of appropriate facilities for each part of the hierarchy are planned for in the right place.

⁴⁸ National Planning Policy for Waste (Para. 3) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

Figure 4: The Waste Management Hierarchy



Source: Waste Framework Directive (Directive 2008/98/EC)

- 6.6 In 2017 there were around 30 waste management facilities in Central and Eastern Berkshire. However, these do not provide sufficient waste management treatment capacity for the estimated waste arisings (i.e. waste tonnage produced) in the area throughout the Plan period.
- 6.7 Accordingly, a number of significant movements of waste originating within Central and Eastern Berkshire are treated outside of the Plan area. In particular, identified long term movements of waste from Central and Eastern Berkshire are treated at facilities within the neighbouring Waste Planning Authorities of Oxfordshire, Slough and Surrey.
- 6.8 This section sets out the policies relating to the following issues:
- Safeguarding waste management facilities;
 - Waste capacity requirements;
 - The locations for waste management; and
 - Re-working landfills.
- 6.9 All policies include an explanation of the existing situation, supporting text regarding the policy and details on how the policy would be implemented and monitored.

Sustainable waste development strategy

- 6.10 Delivering sustainable waste management involves developing strategies and devising policies which will encourage the prudent use of resources whilst also taking into account the potential for waste growth.
- 6.11 In support of sustainable waste development, the Plan and its associated waste policies aim to support the revised Waste Framework Directive (2008/98/EC)⁴⁹ targets, of;
- “by 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50 % by weight; and*
- by 2020, the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70 % by weight.”*
- 6.12 Bracknell Forest Council, Reading Borough Council and Wokingham Borough Council formed a municipal waste management partnership called Re3 in 1999. Re3 produced a Joint Municipal Waste Management Strategy for the period 2008 to 2013. This was updated in 2016/17⁵⁰ and includes a target to achieve 50% reuse and recycling by 2020. Work is ongoing regarding an overarching update. This Plan will support any subsequent update.
- 6.13 The Sustainability Strategy for the Royal Borough of Windsor and Maidenhead (2014 – 2018)⁵¹ contains targets seeking to increase recycling rates to 55% and increase the amount of food waste collected to 2,500 tonnes per annum by in 2017/18.
- 6.14 A number of significant movements of waste originating in the Plan area for treatment outside of the Plan area have been identified. These movements are scheduled to continue through much of the Plan period and their continuation has been considered in developing the Plan.

⁴⁹ Waste Framework Directive -

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

⁵⁰ Re3 Joint Municipal Management Strategy (2008 – 2013) -

<http://wokingham.moderngov.co.uk/documents/s10056/Re3%20Waste%20Strategy%20App.pdf>

⁵¹ Sustainability Strategy for the Royal Borough of Windsor & Maidenhead (2014 – 2018) -

https://www3.rbwm.gov.uk/info/200171/energy_and_climate_change/846/sustainability

6.15 In line with the Waste Management Plan for England⁵² therefore, the Central & Eastern Berkshire Authorities will plan to provide new waste management facilities of the right type, in the right place and at the right time.

Policy W1

Sustainable waste development strategy

The long term aims of the Plan are to provide and/or facilitate sustainable management of waste for Central and Eastern Berkshire in accordance with all of the following principles:

- a) Encourage waste to be managed at the highest achievable level within the waste hierarchy;
- b) Locate near to the sources of waste, or markets for its use;
- c) Maximise opportunities to share infrastructure at appropriate existing mineral or waste sites;
- d) Deliver and/or facilitate the identified waste management capacity requirements (Policy W3);
- e) Be compliant with the spatial strategy for waste development (Policy W4).
- f) Where W1 (e) cannot be achieved, work with other waste planning authorities to provide the most sustainable option for waste management.

Implementation

6.16 Proposals will need to demonstrate how the development achieves the highest achievable level within the waste hierarchy and how much residual waste (requiring disposal) will typically be created per annum.

6.17 Depending on the facility type, waste management activities will be supported in principle where waste will be managed as close to its source as possible to reduce long distance transport, or where it is demonstrated that it represents sustainable development.

6.18 The Central & Eastern Berkshire Authorities will work jointly in planning for the provision of larger facilities that serve the wider Plan area. They will also work closely with neighbouring Waste Planning Authorities to plan for the provision of facilities that serve the wider South East.

6.19 Statements of Common Ground will be reported annually through the 'duty to cooperate' to ensure the issues outlined are still relevant.

⁵²Waste Management Plan for England - <https://www.gov.uk/government/publications/waste-management-plan-for-england>

6.20 Waste management capacity requirements are set out in Policy W3.

6.21 The spatial strategy for waste development is outlined in Policy W4 which includes identified waste sites and location criteria for new waste management development.

Monitoring

6.22 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Effective engagement with other waste planning authorities.	Up-to-date Statement of Common Ground and annual 'duty to cooperate'	n/a
Application of the waste hierarchy.	Percentage of recovery capacity delivered is greater than recycling capacity delivered	n/a
	Percentage of landfill capacity delivered is greater than recovery capacity delivered	n/a

Safeguarding of waste management facilities

- 6.23 The Central & Eastern Berkshire Authorities have a network of waste treatment and transfer facilities which are critical to meeting the long term waste management needs of the Plan area. In addition, there are also a number of significant long-term movements of waste arisings within the Plan area moving outside of the Plan area for treatment.
- 6.24 However, treatment capacity within the Plan area is less than the waste arisings generated. As such, it is considered that all waste management capacity facilities, including treatment and transfer facilities and those which provide a temporary specialist function should be safeguarded from encroachment or loss to other forms of development, particularly in light of increasing pressures on land for competing uses such as housing.
- 6.25 It is important that existing and potential waste sites are not hindered by 'encroachment' of inappropriate development in close proximity in order that the operational potential of the waste site is not negatively impacted.

Policy W2

Safeguarding of waste management facilities

All waste management facilities and those which provide a temporary specialist function shall be safeguarded from encroachment or loss to other forms of development.

New waste management facilities will be automatically safeguarded.

Non-waste development that might result in a loss of permanent waste management capacity may be considered in the following circumstances:

- a) The planning benefits of the non-waste development clearly outweigh the need for the waste management facility at the location; and
- b) An alternative site providing an equal or greater level of waste management capacity of the same type has been found within the Plan area, granted permission and shall be developed and operational prior to the loss of the existing site; or
- c) It can be demonstrated that the waste management facility is no longer required and will not be required within the Plan period.

Implementation

- 6.26 Waste management sites are less geographically and geologically restricted than mineral sites, but can face pressures from incompatible non-waste development. This is because many waste management activities can be located on industrial land, where land rental values can be high. Waste management typically generates less high value end products which means activities on prime industrial locations are not always viable to sustain.
- 6.27 Planning policy has a role to play in protecting waste management sites from competing pressures. It is important to avoid the loss of facilities or allocated waste management sites as this capacity may not be replaced elsewhere. This limits the ability to manage waste close to where it is generated and in sustainable locations in terms of transport, and the ability to maintain provision to meet waste management needs.
- 6.28 Furthermore, to encourage proposals for the necessary level of capacity required over the Plan period, new waste management should be automatically safeguarded until the required capacity requirements have been met.
- 6.29 Safeguarded waste sites will be shown on the Minerals and Waste Safeguarding Area and associated Consultation Area.
- 6.30 It is recognised that it is not always appropriate to protect existing waste management sites from redevelopment or encroachment by other uses. Many planning permissions for waste management activities are temporary, which may reflect the aim of returning the land to its previous use or developing / restoring it for an alternative use longer term.
- 6.31 It may be appropriate to redevelop some safeguarded sites if they offer strong regeneration potential. The impact on the overall waste handling capacity would need to be assessed in order to maintain capacity levels. Any change in site use would need to be considered on a case-by-case basis to ensure sufficient waste capacity was maintained in the Plan area.
- 6.32 Sites for waste recovery to land operations using CD&E waste are not safeguarded as these generally involved other landuses and constitute a form of engineering works.
- 6.33 In the case of encroaching development, it must be demonstrated that mitigation measures are in place to ensure that the proposed development is adequately protected from any potential adverse impacts from the existing waste development.

6.34 Encroaching development is considered as any development which impacts upon the waste management activities or associated activity (such as transport) of a site.

6.35 Where this infrastructure is located outside of the Plan area, the Central & Eastern Berkshire Authorities will provide support to the relevant Waste Planning Authority should there be the need to defend the safeguarding or support the replacement of the capacity.

Monitoring

6.36 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Safeguarding waste infrastructure.	Number of safeguarded sites developed for non-waste uses without replacement capacity > 0	n/a

Waste capacity requirements

- 6.37 The Central & Eastern Berkshire Authorities will aim to provide and/or facilitate sustainable management of waste for Central and Eastern Berkshire within the Plan area. However, given the extent of existing movements of waste to treatment facilities outside of the Plan Area, it is recognised that this may be difficult to prevent and that they will have to work with other Waste Planning Authorities outside of the Plan area.
- 6.38 Planning for the management of waste in line with this principle conforms with both National Planning Policy for Waste and Planning Practice Guidance⁵³ which suggests that there is no expectation that each local planning authority should deal solely with its own waste to meet the requirements of self-sufficiency.
- 6.39 These movements of waste have an implication on the waste treatment capacity required within Central and Eastern Berkshire. The amount of waste 'imports' and 'exports' to and from the Plan area are not static. However, the capacity requirements identified provide what is considered the minimum additional amount of waste treatment capacity required within Central and Eastern Berkshire.
- 6.40 Should the aforementioned movements of waste cease within the Plan period, it is expected that additional waste treatment capacity would be required within the Plan area. However, market forces may result in the capacity shortfall being addressed elsewhere.
- 6.41 By 2036, the following estimated arisings are expected within Central and Eastern Berkshire:
- 725,000 tonnes per annum (tpa) non-hazardous waste;
 - 30,000 tpa hazardous waste; and
 - 680,000 tpa inert waste.
- 6.42 The capacity requirements outlined in this Plan take into consideration current levels of capacity and seek to address the future arisings expected up to 2036.
- 6.43 Each of the above waste streams consists of different materials that may need differing waste facilities. The capacity gap for the main types of materials in each stream is considered in this Plan, while acknowledging that these may change in the future depending on markets, technologies and changes in waste composition.

⁵³ National Planning Practice Guidance (Waste – Para. 007) - <https://www.gov.uk/guidance/waste>

Recycling capacity requirements for non-hazardous waste

- 6.44 Recycling is higher up the waste hierarchy than recovery or landfill, so is a preferable form of waste management.
- 6.45 Approximately 37,500 tonnes per annum (tpa) of kerbside collected Dry-Mixed Recyclables (DMR) originating from the Plan area are currently sorted at the Smallmead Waste Management Centre in Reading. This is likely to increase up to 44,000 tpa by the end of the Plan period, and can be met by the capacity of current facilities.
- 6.46 In addition, approximately 34,000 tpa of DMR produced within Central and Eastern Berkshire is treated by Materials Recycling Facilities (MRFs) outside of the Plan area, predominantly at facilities in Warwickshire and West Berkshire. A further 7,000 tpa of cardboard, plastics and paper are also produced within, and treated outside of, the Plan area.
- 6.47 Composting is considered a recycling process. Just over 45,000 tpa of biodegradable waste derived from parks and gardens across Central and Eastern Berkshire is currently being treated outside of the Plan area, most notably at composting facilities in Oxfordshire. Currently there is limited capacity available for composting within the Plan area.
- 6.48 In addition, the Central and Eastern Berkshire authorities produce approximately 13,500 tpa of waste vehicles (ELVs) and approximately 30,000 tpa of metal waste as separate fractions. Of this total, approximately 25,000 tpa is exported from, and treated outside of the Plan area namely at facilities provided in Bristol, Buckinghamshire and Hampshire.
- 6.49 In total, considering forecasted waste growth and the integration of a headroom capacity, the arisings of these wastes streams which have potential to be recycled is likely to reach around **145,000 tpa by 2036**.

Residual capacity requirements for non-hazardous waste

Recovery capacity

- 6.50 Treatment through means of recovery is encouraged in order to drive waste further up the waste hierarchy.
- 6.51 In 2017, approximately 36,000 tpa of residual household waste from the Royal Borough of Windsor & Maidenhead was sent to the Ardley Energy Recovery Facility (ERF) in Oxfordshire under a contractual agreement due to run to 2030,

although two five year extensions have been agreed within the current arrangement which could extend this to 2040.

- 6.52 In addition, approximately 70,000 tpa of residual household waste from the Re3 Authorities (Bracknell Forest, Reading and Wokingham) is sent to the Lakeside ERF in Slough under a contract to 2031.
- 6.53 The Government has recently indicated that it prefers the proposed additional runway at Heathrow airport as an airport expansion option⁵⁴ and this would impact and potentially result in the loss of the Lakeside ERF.
- 6.54 It is currently uncertain as to whether the Lakeside ERF will be lost or alternatively relocated. However, relocating such a facility is a complex project that is still subject to negotiation, as well as planning consents and other permits.
- 6.55 The potential loss of this facility would have a significant impact on waste capacity requirements within the Plan area and across the wider region.
- 6.56 In addition to these movements, around 77,000 tpa of non-hazardous waste originating from Plan area, which has the potential to be treated through recovery, is currently sent to non-hazardous landfills.
- 6.57 Considering waste growth and the integration of a headroom capacity, these arisings are likely to reach around **100,000 tpa by 2036**.
- 6.58 This recovery requirement can be delivered through a range of technologies including anaerobic digestion, combined heat and power, gasification and pyrolysis.

Landfill capacity

- 6.59 Despite the level of effective technology currently available to divert waste away from landfill, there is still a requirement for this option for dealing with wastes which cannot currently be recycled, or which are contrary to the input specification of recovery and pre-recovery treatment facilities.
- 6.60 Around 87,000 tpa of non-hazardous waste arising from Central and Eastern Berkshire is currently sent to landfill. Approximately, 49,000 tpa of this is sent from Reading, Wokingham and Bracknell Forest (Re3) to the Sutton Courtenay Landfill (Oxfordshire).

⁵⁴ Government announcement regarding Heathrow expansion
www.gov.uk/government/news/governmentdecides-on-new-runway-at-heathrow

- 6.61 In 2017, there was only one operational landfill site within Central and Eastern Berkshire which accepted non-hazardous waste; Star Works landfill site at Knowl Hill near Maidenhead. This operation has planning permission which allows 70,000 tonnes of waste per annum to be imported, and is required to cease operations in January 2019 for non-inert waste and January 2020 for inert waste.
- 6.62 The South East Waste Planning Advisory Group (SEWPAG) has recognised that, with the early closing of landfill sites and the successful diversion of waste from landfill, there is likely to be a move towards regionally strategically landfill sites in the near future⁵⁵.
- 6.63 Additional non-hazardous landfill capacity will therefore be considered where there is a clearly demonstrated need.

Hazardous waste capacity requirements

- 6.64 Hazardous waste and the facilities required to manage it are often of a regional or national nature as the quantities of waste from each local authority are too small to justify a greater number of facilities. As such, this waste can travel further than other types of waste.
- 6.65 Approximately 25,000 tpa of hazardous waste is currently generated within the Plan area, of which the majority, 21,000 tpa, is treated in various facilities across a number of local authority areas.
- 6.66 Due to the specific type of hazardous waste currently being exported from the Plan area however, there is only a requirement for an additional 5,500 tpa treatment capacity by the end of the Plan period.

Sludge, liquid, effluent and waste water treatment capacity requirements

- 6.67 Around 147,000 tpa of sludge, effluent and waste water are produced in Central and Eastern Berkshire. There is currently very limited capacity for sludge treatment within the Plan area. However, the majority of this arising (121,500 tpa) is managed by Thames Water facilities in neighbouring areas, most notably in Slough and Surrey.
- 6.68 There is potential for these arisings to increase to around 174,000 tpa by 2036. Approximately 144,000 tpa of these arisings will be met by capacity provided by Thames Water up to the end of the Plan period. As such, in addressing this

⁵⁵ SEWPAG is currently working collectively to prepare a Position Statement which outlines this issue. Specific reference will be made to this Position Statement once publically available.

residual arising, there is a need to provide additional capacity within the Plan area of **33,000 tpa by 2036**.

Inert recycling and recovery capacity

6.69 Around 540,000 tpa of inert wastes⁵⁶, the majority of which (450,000 tpa) is treated outside of the Plan area, predominantly at facilities in West Berkshire and Oxfordshire.

6.70 Considering various planned schemes and end dates of existing treatment capacity within the Plan area, there is likely to be a need for around **305,000 tpa by 2036** of inert aggregate recycling, or recovery capacity.

6.71 This need can be delivered through a range of technologies such as recycled aggregate processing or through infill of material used in restoration or engineering projects such as that at Green Park Village to mitigate flood risk.

Policy W3

Waste capacity requirements

Additional waste infrastructure capacity within the Plan area will be granted to provide a minimum of:

- 145,000 tpa non-hazardous recycling capacity;
- 100,000 tpa non-hazardous recovery capacity;
- 33,000 tpa non-hazardous sludge treatment capacity;
- 305,000 tpa of inert recycling or recovery capacity.

Hazardous waste management facilities and non-hazardous waste landfill for residual waste will be supported, in appropriate locations, where there is a clear and demonstrable need.

Implementation

6.72 Proposals will need to demonstrate how the development achieves the highest possible level within the waste hierarchy and how much residual waste (requiring disposal) will typically be created per annum.

6.73 Depending on the facility type, waste management activities will be supported in principle where waste will be managed as close to its source as possible to

⁵⁶ Although some may be contaminated by non-inert fractions coded as non-hazardous waste (consisting largely of concrete, bricks, tiles, ceramics and bituminous mixtures) are currently produced within the Plan area.

reduce long distance transport, or where it is demonstrated that it represents sustainable development.

6.74 The Central & Eastern Berkshire Authorities will work jointly in planning for the provision of larger facilities that serve the wider Plan Area, and will also work closely with neighbouring Waste Planning Authorities to plan for the provision of facilities that serve the wider South East.

6.75 Proposals for non-hazardous landfill will be required to demonstrate their need as well as ensuring that;

- a) no acceptable alternative form of waste management further up the waste hierarchy is achievable;
- b) the site does not affect a Principal Aquifer and is outside Groundwater Protection and Flood Risk Zones;
- c) The site provides for landfill gas collection and energy recovery.

6.76 Where Energy recovery development is being proposed, it must:

- a) be used to divert waste from landfill, where other waste treatment options further up the waste hierarchy have been discounted; and
- b) provide and be designed to allow for the exploitation of both heat and power generated by the facility; and
- c) provide sustainable management arrangements for waste treatment residues arising from the facility.

6.77 Proposals to treat sludge, liquid, effluent and waste water will need to demonstrate;

- a) There is a clearly demonstrated need to provide additional capacity via extensions or upgrades for the treatment of sludge, liquid, effluent and waste water, particularly in planned areas of major new development; and
- b) They do not breach either relevant 'no deterioration' objectives or environmental quality standards.

6.78 The proposal should make provision for the beneficial co-treatment of sewage with other wastes.

6.79 Other liquid waste treatment plant proposals that contribute to the treatment and disposal of oil and oil/water mixes and leachate will be expected to be located as near as possible to its source.

6.80 Aggregate recycling facilities accept hard inert material which is crushed and filtered to produce recycled and secondary aggregates of various grades. The

softer materials like soils, chalk and clay can also be recovered whereby they may be used as beneficial fill materials for landscaping, for example. To increase the management of inert waste higher up the waste hierarchy, all inert waste elements capable of producing high quality recycled aggregates should be removed for recycling.

Monitoring

6.81 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Trigger	(Threshold) for Policy Review
Capacity of waste management facilities	Net loss of waste management capacity from closure of sites	Breach over 3 consecutive years
Landfill capacity	Landfill void capacity (years) > 0	n/a
Hazardous waste capacity	Hazardous waste treatment and transfer management capacity is lower than arisings*	n/a

*Transfer included as it is recognised that this waste generally travels further due to its specialist nature

6.82 The following targets for waste management provision will also be monitored to ensure that Policy W3 is on track to address the increase in required capacity through the Plan period.

Non-hazardous recycling or recovery capacity				
	2020	2025	2030	2036
Non-hazardous recycling capacity	126,600 tpa	132,100 tpa	137,800 tpa	145,000 tpa
Non-hazardous recovery capacity	87,600 tpa	91,400 tpa	95,400 tpa	100,300 tpa
Non-hazardous sewage sludge capacity	29,000 tpa	30,300 tpa	31,600 tpa	33,200 tpa

Inert recycling or recovery capacity				
2020-2022 required provision	2023-2026 required net additional provision	2027-2029 required net additional provision	2030-2036 required net additional provision	Total Capacity required throughout Plan period
N/A	63,250 tpa	132,000 tpa	110,000 tpa	305,250 tpa

Locations and sites for waste management

6.83 Modern waste management facilities can be located on different types of land, if the location is appropriate for the proposed activity. In Central and Eastern Berkshire, the existing network of facilities is generally focused on the main urban areas, although some facilities such as composting tend to be in more rural areas.

Types of waste management facilities

- 6.84 Recycling and recovery facilities enclosed in buildings are typically of an industrial nature and deal with largely segregated materials. Activities involve preparing or sorting waste for re-use and include materials recovery facilities (MRF), waste transfer stations (WTS), dis-assembly and re-manufacturing plants, and reprocessing industries. Potential nuisances such as dust and noise can be mitigated as the activity is enclosed, meaning these facilities are compatible with industrial estates.
- 6.85 Smaller-scale facilities (with an approximate throughput of up to 50,000 tonnes per annum and requiring sites of 2 hectares or less) will normally be compatible with most general industrial estates.
- 6.86 Larger scale enclosed premises (typically requiring sites of 2-4 hectares, with a throughput in excess of 100,000 tonnes per annum) and facilities with a stack are likely to be located on larger industrial estates or suitable brownfield sites.
- 6.87 Sites suitable for general industrial uses are those identified as suitable for B2 (including mixed B2/B8), or some uses within the B8 use class⁵⁷ (namely open air storage). Waste management uses would not normally be suitable on land identified only for B1 (light industrial uses), although a limited number of low impact waste management uses (e.g. the dis-assembly of electrical equipment) may be suitable on these sites. Some industrial estates will not be considered suitable for certain waste management facilities because for instance the units are small, the estate is akin to a business park or it is located close to residential properties.
- 6.88 Energy Recovery Facilities (ERFs) which include advanced thermal treatment processes such as pyrolysis and gasification/plasma conversion require built facilities and, in some cases, a stack (i.e. chimney). Sites must be carefully selected and sensitively designed to avoid visual and other amenity and

⁵⁷ The Town and Country Planning (Use Classes) Order 1987 - <http://www.legislation.gov.uk/ukxi/1987/764/schedule/made> - as amended by The Town and Country Planning (Use Classes) (Amendment) (England) Order 2010 - <http://www.legislation.gov.uk/ukxi/2010/653/article/2/made>

environmental impacts and to provide renewable energy to serve the surrounding area. The location of these facilities is influenced by the location of those using the heat and energy generated and the need to access fuel feedstock. This means that where appropriate, energy recovery Combined Heat and Power (CHP) plants (which may also include non-waste fuel sources) may be encouraged alongside new and existing developments, or near sources of fuel feedstock. Small-scale community based CHP schemes may be suitable within planned major development or regeneration areas or in mixed-use schemes. CHP could also be used in remote rural areas that do not have access to mains gas supplies.

- 6.89 Recycling and recovery activities which predominantly take place in the open (outside buildings) or involve large areas of open air storage include biological waste treatment (including composting), construction, demolition and excavation (CD&E) recycling, end-of-life vehicle processing and some Household Waste Recycling Centres or Civic Amenity sites. Because these activities can create noise, odours and other emissions, they are not easily assimilated in built-up areas.
- 6.90 Some activities will be more 'hybrid' in nature, requiring sites with buildings and open storage areas. These may include outdoor MRF or waste transfer station (WTS), wharves and rail sidings for waste transshipment and/or storage. In most cases, the co-location of waste management facilities or processes to increase the recycling and recovery of waste is supported, particularly when the feedstock or outputs are well related.

Locations and sites in Central and Eastern Berkshire

- 6.91 A number of sites have been identified as being appropriate locations, in principle, for hosting waste management activities which are outlined in Appendix A.
- 6.92 These sites are not sufficient to meet the future waste management requirements of Central and Eastern Berkshire up to the end of the Plan period and therefore, it is expected that further new sites will come forward through market-led delivery.
- 6.93 A review of industrial estates and employment land⁵⁸ has identified industrial estates and/or employment sites that are suitable for locating waste management facilities in the boroughs of Bracknell Forest, Reading and

⁵⁸ Waste: Proposals Study (June 2018) – www.hants.gov.uk/berksconsult

Wokingham. These estates and sites are existing, or proposed, allocations for land uses which are considered compatible to waste uses.

- 6.94 This Plan does not seek to allocate the industrial estates or employment sites as this provision is made within the wider Development Plan. However, the review provides evidence of potential capacity for waste facilities as and when land becomes available on these sites.
- 6.95 The review concluded that there was approximately 30 sites that were suitable for waste uses ranging from ‘Activities requiring a mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)’ to ‘Activities requiring enclosed building with stack (small scale)’ (see Appendix C for more details). The most common category of waste activity suitable at the sites was ‘Activities requiring enclosed industrial premises (small scale)’.
- 6.96 All waste management has transport implications and transport impacts and these should be minimised by ensuring that sites have good connectivity to the strategic network which is the principal transport network for moving waste in the Plan area.
- 6.97 The spatial approach to delivering new waste management capacity aims to allow waste capacity to be sited as close to the source and markets of the waste. Waste facilities will also need to support planned areas of major new development.

Policy W4

Locations and sites for waste management

The delivery of waste management infrastructure will be supported within:

- 1) Allocated sites:
 - i. Planners Farm, Brock Hill
 - ii. Horton Brook Quarry, Horton
 - iii. The Compound, Pinkneys Green, Maidenhead
 - iv. Berkyn Manor Farm, Horton
 - v. Star Works, Knowl Hill
 - vi. Datchet Quarry / Riding Court Farm, Datchet

- 2) Appropriate locations, where the site:
 - a) Has good connectivity to the strategic road network; and
 - i. Areas of major new development; or
 - ii. Sources of waste; or
 - iii. Markets for the types of waste to be managed; and
 - b) Is existing or planned industrial or employment land; or
 - c) Is previously-developed land or redundant agricultural and forestry buildings, their curtilages and hard standings; or
 - d) Is part of an active quarry or landfill operation; or
 - e) Is within or adjoins sewage treatment works and the development enables the co-treatment of sewage sludge with other wastes.

Implementation

6.98 The allocation of sites does not convey that planning permission will be automatically granted but indicates the locations could provide sustainable development subject to the development considerations being addressed (see Appendix A).

6.99 Proposals for further waste management development will be supported where they are in 'appropriate locations' and therefore, comply with all relevant policies within this Plan.

6.100 All sites are required to have 'good connectivity' to the sources, or markets and strategic transport routes as defined by Policy DM11.

6.101 Opportunities to provide waste treatment facilities at existing developed locations such as employment sites where general industrial and distribution

activities are located (B2/B8 land uses)⁵⁹, or on previously-developed land are strongly supported.

- 6.102 In accordance with the other policies in this Plan, activities involving open areas will only be supported if they do not have adverse environmental impacts, and noise and emissions are controlled by effective enclosure and other techniques.
- 6.103 There may be a special need or circumstances where both enclosed and open-air facilities can be justified on sites outside main urban areas. Facilities may require a more rural location because this is closer to the source of the waste being treated or the activity is related to an agricultural activity. For instance, anaerobic digestion (AD) plants and composting facilities may need to be located where there is an available feedstock and where residues can be disposed to land for beneficial purposes. Proposals would generally be of a smaller scale than that proposed in urban areas or on edge of the urban / rural area (the urban fringe).
- 6.104 Facilities for recycling, particularly inert or construction, demolition and excavation (CD&E) waste, that produce recycled or secondary aggregate, are sometimes located in historic landfills or current/former quarries. In almost all cases, it is expected that that former quarries or landfills will be restored but there may be exceptions where the benefits from continued development at some host locations are considered to be more sustainable than re-locating the development elsewhere. CD&E waste recycling facilities can also be acceptable on some industrial sites, particularly in close proximity to sources of waste.
- 6.105 New waste water and sewage treatment plants, extensions to existing works, or facilities for the co-disposal of sewage with other wastes will be supported where the location minimises any adverse environmental or other impact that the development is likely to give rise to, and the site is considered appropriate by meeting all relevant policies within this Plan.
- 6.106 The co-location of activities with existing operations will be supported, where appropriate, if commensurate with the operational life of the site, and where it would not result in intensification of uses that would cause unacceptable harm to the environment or communities in a local area (including access routes), or prolong any unacceptable impacts associated with the existing development.

⁵⁹ The Town and Country Planning (Use Classes) Order 1987 - <http://www.legislation.gov.uk/uksi/1987/764/schedule/made> - as amended by The Town and Country Planning (Use Classes) (Amendment) (England) Order 2010 - <http://www.legislation.gov.uk/uksi/2010/653/article/2/made>

6.107 It is recognised that some types of waste management require a more isolated location such as composting or AD. Proposals requiring a more rural location will be required to demonstrate a special need or circumstances why the waste management activity should be located at that particular site.

6.108 A number of development projects⁶⁰ are planned over the Plan period. These projects will have implications for waste management and also provide opportunities to host appropriate waste management development, particularly within major areas of development such as at Grazeley, a proposed Garden Settlement which includes land in Wokingham.

Monitoring

6.109 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Appropriately located waste management.	Permissions not in accordance with Policy W4 (1)	n/a
	Permissions not in accordance with Policy W4 (2)	Permissions not in accordance with Policy W4 (2) > than those in accordance.

⁶⁰ Minerals / Waste: Background Study (June 2018) – www.hants.gov.uk/berksconsult

Re-working landfills

- 6.110 There may be opportunities for the re-working of former landfill sites to either remove existing landfilled materials in order to reuse the land or void, or to exploit benefits from the in-situ material itself. Such materials may be valuable and therefore the re-working of such sites would enable the value to be recovered in addition to providing additional landfill capacity if needed.
- 6.111 One former landfill site within Central and Eastern Berkshire has already been successfully reworked, albeit to enable the delivery of residential development rather than the reuse for waste. The former Badnell's Pit in Maidenhead was given permission by the Planning Inspectorate in March 2006 for the removal of landfill waste and replacement with clean fill.
- 6.112 Having been subject to unregulated landfill activities between the 1940s and 1960s, the site was heavily contaminated and there were concerns that removal of the material would cause a serious risk to health. However, the Planning Inspectorate concluded that, subject to conditions, the benefits of the proposed development were sufficient to outweigh the harm that might be caused. The site is now known as Boulters Meadow and is a residential development with over 400 homes.

Policy W5

Reworking landfills

Proposals for the re-working of landfill sites will only be permitted where all of the following principles are met:

- a) There is no unacceptable risk to human health or the environment;
- b) The proposals would result in beneficial use of the land and of the material being extracted;
- c) There is minimal noise and disturbance during the operation and restoration;
- d) There is timely and high quality restoration and aftercare of the site.

Implementation

- 6.113 The extent of the opportunities for re-working of landfill sites in Central and Eastern Berkshire is unknown and it is likely that considerable work may need to be undertaken to ascertain the 'value' of the sites in Central and Eastern Berkshire by any potential developer. However, pressure on land for housing may result in these opportunities becoming more economically beneficial.

Therefore, consideration should be given to the wider Development Plan for Central and Eastern Berkshire.

6.114 Proposals brought forward for the re-working of landfill will also need to consider backfill materials, if applicable, as part of the planned restoration.

Monitoring

6.115 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Appropriate re-working of landfills.	Permissions not in accordance with Policy W5	n/a

7. Development Management Policies

- 7.1 The following Development Management (DM) policies address a range of subjects relevant to minerals and waste developments in Central and Eastern Berkshire. Together with the minerals (M) and waste (W) policies, they form a robust framework for the determination of minerals and waste applications. These policies should also be considered in the context of the wider Development Plan⁶¹ where the proposal is situated.
- 7.2 It is important that all minerals and waste developments are designed to minimise the impact upon the environment and local communities within Central and Eastern Berkshire.

⁶¹ The Development Plan includes the Local Plan for the relevant area.

Sustainable Development

- 7.3 The National Planning Policy Framework (NPPF) requires local plans to support the presumption in favour of sustainable development. Accordingly, any development that conforms to the policies in this Plan is deemed sustainable and should be progressed without delay by the relevant planning authority.

Policy DM1 Sustainable Development

The Central & Eastern Berkshire Authorities will take a positive approach to minerals and waste development that reflects the presumption in favour of sustainable development contained within the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance. The authorities will seek to work proactively with applicants to find solutions to secure development that improves the economic, social and environmental conditions of the Plan area.

Minerals and waste development that accords with the policies in this Plan will be approved, unless material considerations indicate otherwise.

Implementation

- 7.4 Development management will be the main, but not the only, means by which the Plan will deliver sustainable minerals and waste development in Central and Eastern Berkshire. The Plan is largely delivered through the determination of minerals and waste planning applications and through the implementation of policies in this Plan. The approach will be focused on problem solving and seeking quality outcomes. Accordingly, when dealing with applications, the relevant planning authority will:
- Make timely decisions within the required timeframes;
 - Promote pre-application discussions between minerals and waste developers, the determining authority, statutory consultees and other consultees, as appropriate;
 - Ensure appropriate and proportionate information is submitted;
 - Request that statutory consultees provide timely advice;
 - Give due weight to this Plan in the context of the overall development plan when making decisions on minerals and waste development;
 - Impose appropriate controls on development through conditions;
 - Monitor all minerals and waste development proportionate to its potential risk and take appropriate compliance measures, including enforcement action when unauthorised development takes place; and,

- Encourage community engagement on minerals and waste development proposals, as appropriate, to ensure the community can examine development proposals and engage with interested parties. Community engagement is relevant to minerals and waste development at all stages of the planning process, including pre-application and post submission, as well as during development monitoring.

7.5 In making any planning decision the relevant authority will have to make a judgement as to the weight they give to the various elements of the Development Plan including the Joint Minerals and Waste Plan as well as other material considerations and conclude whether on the balance of evidence a development is sustainable and if it should be granted planning permission.

7.6 The effectiveness of the Joint Minerals and Waste Plan will be monitored against the relevant indicators and reported annually. The Plan will be reviewed within five years of adoption to determine whether an update of the Plan will be required in part or as a whole.

Monitoring

7.7 Suggested Monitoring Indicators

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Planning performance.	60% of planning applications within 13 weeks (excluding those subject to an Environmental Impact Assessment (EIA) or a Planning Performance Agreement or other agreed extension of time).	Breach over 3 successive years.

Climate Change – Mitigation and Adaptation

- 6.6 It is a national planning objective that planning plays a key role in helping to shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure⁶². National planning policy also states that ‘local planning authorities should adopt proactive strategies to mitigate and adapt to climate change’⁶³.

Policy DM2

Climate Change – Mitigation and Adaptation

Minerals and waste development should, where applicable, reduce vulnerability and provide resilience to the impacts of climate change by:

1. Being located and designed to help reduce greenhouse gas emissions and encourage sustainable use of resources; or,
2. Facilitating low carbon technologies; and
3. Incorporating mitigation and adaptation measures.

Implementation

- 7.8 Minerals and waste development can provide opportunities to mitigate and adapt to the effects of climate change, including:
- Reduction in greenhouse gas emissions through diverting biodegradable waste from landfill;
 - Generation of renewable energy from energy recovery facilities;
 - More sustainable use of resources through the use of recycled and secondary aggregates in construction;
 - Appropriate restoration of quarries and landfill sites;
 - Supplying aggregates for use in flood defences;
 - Opportunities for water storage in flood zones; and,
 - The location of development adjacent to local markets which may provide opportunities to reduce emissions from or created by transport.
- 7.9 In this instance resilience means capacity for the environment to respond to such changes by resisting damage caused by climate change and, where

⁶² National Planning Policy Framework (Para. 93) -

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

⁶³ National Planning Policy Framework (Para. 99) -

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

damage does occur, recovering quickly. This can be achieved by maintaining a robust and varied network of natural environments which will allow natural processes to change and adapt.

7.10 The following policies outline how mitigation and adaptation of Climate Change will be addressed by this Plan:

- Policy DM8: Restoration of Minerals and Waste Developments;
- Policy DM9: Protecting Public Health, Safety and Amenity;
- Policy DM10: Water Environment and Flood Risk;
- Policy DM11: Sustainable Transport Movements; and
- Policy DM12: High Quality Design of Minerals and Waste Development.

Monitoring

7.11 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Climate change.	Number of planning permissions granted which: <ul style="list-style-type: none"> • divert waste from landfill; • generate renewable energy; • encourage aggregate recycling or secondary aggregate; • provide resilient restoration schemes; • provide for flood defence or water storage; and • include sustainable transport. 	n/a

7.12 The Plan seeks to reduce emissions as required by the Climate Change Act, but it is not possible to monitor the effectiveness of this due to the lack of available baseline and monitoring data.

Protection of Habitats and Species

- 7.13 Central and Eastern Berkshire supports a wide range of landscapes and habitats that play an important role in supporting a variety of flora and fauna, including internationally and nationally important wildlife areas, and rare and declining species.
- 7.14 The Central & Eastern Berkshire Authorities will seek to avoid any net loss of biodiversity as a result of development, and will give regard to the implications of climate change to ensure that habitats are sufficiently protected and enhanced to support resilience to such changes.
- 7.15 National planning policy protects important habitats and species at all levels of public administration requiring local authorities to 'set out a strategic approach to plan positively for the creation, protection, enhancement and management of networks for biodiversity and green infrastructure'⁶⁴.
- 7.16 Bracknell Forest and Windsor & Maidenhead both have sites of international importance including Thames Basin Heaths Special Protection Area (SPA), Chiltern Beechwoods Special Area of Conservation (SAC), South West London Wetlands SPA and Ramsar as well as the Windsor Forest Great Park SAC which crosses both authorities.
- 7.17 Locally important sites, such as Local Wildlife Sites, are also designated in recognition of their significance at the local level but do not normally carry the same level of protection as internationally or nationally designated sites.

⁶⁴ National Planning Policy Framework (Para. 114) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Policy DM3

Protection of Habitats and Species

Minerals and waste development that will contribute to the conservation, restoration or enhancement of biodiversity will be permitted.

Development that is likely to result in a significant effect, either alone or in combination with internationally designated sites including Special Protection Areas, Special Areas of Conservation, Ramsar sites; sites identified to counteract adverse effects on internationally designated sites; and European Protected Species will need to satisfy the requirements of the Habitat Regulations.

The following sites, habitats and species will be protected in accordance with the level of their relative importance:

- a) nationally designated sites including Sites of Special Scientific Interest and National Nature Reserves, nationally protected species and Ancient Woodland (including semi-natural and replanted);
- b) local interest sites including Local Wildlife Sites, and Local Nature Reserves;
- a) habitats and species of principal importance;
- b) priority habitats and species listed in the national and local Biodiversity Action Plans;
- c) trees, woodlands, ancient woodland, aged and veteran trees, and hedgerows; and
- c) features of the landscape that function as 'stepping stones' or form part of a wider network of sites by virtue of a coherent ecological structure or function, or importance in the migration, dispersal and genetic exchange of wild species.

Minerals and waste development likely to result in the loss harm or deterioration of the above sites, habitats and species will only be permitted where it is judged;

1. In proportion to their relative importance (alone or as part of a wider network), that the merits of the development outweigh any likely environmental damage;
2. The development could not be reasonably located on an alternative site that would result in less or no harm to the biodiversity interests; and
3. The development would result in adverse effects to biodiversity, appropriate avoidance, mitigation and compensation measures can be provided.

Implementation

- 7.18 Internationally protected sites will be given the statutory protection set out in the European Union Habitats Directive⁶⁵, and development that is likely to result in a significant effect, either alone or in combination, will need to satisfy the requirements of the Habitat Regulations⁶⁶ through project level assessments; proposals likely to result in adverse effects, after avoidance and mitigation measures have been accounted for, will not be permitted.
- 7.19 Development which is likely to have an adverse impact upon European Protected Species can only be permitted where it is judged to have no satisfactory alternative, there are strong overriding reasons of public interest, and that the conservation status of species can be maintained.
- 7.20 With regards to internationally and nationally designated sites, the Central & Eastern Berkshire Authorities have a duty to take reasonable steps to further the conservation and enhancement of the features for which sites are designated. The presence of such a site within or adjacent to a minerals or waste proposal may constrain the type and scale of development where the designated features of interest may be impacted.
- 7.21 Central and Eastern Berkshire also contains other important sites, habitats and species which also critical in maintaining a high level of biodiversity. These sites, habitats and species form networks that support a robust and healthy natural environment that is resilient to change. The Central & Eastern Berkshire Authorities will encourage positive management of such habitats and the species they support, particularly where development proposals would extend or create links between existing habitats, create or restore priority habitats and support Biodiversity Action Plan or Biodiversity Opportunity Area targets.
- 7.22 In a small number of instances, minerals and waste development may result in significant impacts on habitats and species which cannot be avoided or mitigated. In these instances, the provision of new areas of like-for-like habitats as compensatory habitats will be required to ensure that there is no overall net loss of habitats or populations. If significant harm cannot be avoided, mitigated against, or adequately compensated for, planning permission may be refused if the need for the development does not outweigh the biodiversity interests at the site.

⁶⁵ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

⁶⁶ The Conservation of Habitats and Species Regulations 2017

7.23 In the case of a demonstrated overriding need for the development, any impacts would be required to be mitigated or compensated for in order to provide a net gain or improvement in condition. Such measures should be located either within or close to the proposed development.

Monitoring

7.24 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on habitat and species.	<p>Number of planning permissions granted which impact on European designations or Sites of Special Scientific Interest (SSSIs) against Natural England advice > 0</p> <p>Condition and/or changes in biodiversity of SSSIs and Local Wildlife Sites (LWSs) within 5km of operational minerals and waste sites.</p>	n/a

Protection of Designated Landscape

- 7.25 Central and Eastern Berkshire contains a diverse range of landscapes. National planning policy gives great weight ‘to conserving landscape and scenic beauty in National Parks and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty’⁶⁷.
- 7.26 Although Central and Eastern Berkshire does not include any landscape designations, the North Wessex Downs Area of Outstanding Natural Beauty (AONB) and Chilterns AONB border the northern limit of the administrative area. The primary purpose of AONB designation is to conserve natural beauty. These designations, including their setting, need to be fully taken into account when considering minerals and waste developments.

Policy DM4

Protection of Designated Landscape

Planning permission for major minerals and waste development proposals adjacent, and within the setting of the North Wessex Downs Area of Outstanding Natural Beauty (AONB), and Chilterns AONB, will be considered having regard to the effect on the purpose of conserving and enhancing the special qualities of the relevant AONB. Consideration of such applications will assess;

- a) The need for the development, including in terms of any national considerations and the impact of granting, or
- b) The impact of permitting, or refusing the development upon the local economy;
- c) The cost of, and scope for meeting the need elsewhere outside the designated area, or meeting the need in some other way; and,
- d) Whether, any detrimental effects on the environment, the landscape and/or recreational opportunities can be satisfactory mitigated, taking account of the relevant AONB Management Plan.

Implementation

- 7.27 Minerals can only be worked where they are found. Minerals development in areas of landscape importance should be rigorously examined and should only take place when there are exceptional reasons and the need for the development outweighs any negative impact.

⁶⁷ National Planning Policy Framework (Para. 115) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

7.28 For the purposes of Policy DM4 only, major minerals and waste development is considered to be development that, by reason of its scale, character or nature, has the potential to have a significant adverse impact on the natural beauty, distinctive character, and remote and tranquil nature of the AONBs and local landscapes. The potential for significant impacts on the AONBs will be dependent on the individual characteristics of each case.

Monitoring

7.29 Suggested Monitoring Indicators:

Monitoring Issues	Monitoring Indicator	(Threshold) for Policy Review
Impact on the setting of AONBs.	Number of planning permissions granted in the setting of an AONB against Natural England advice > 0	n/a

Protection of the Countryside

- 7.30 The landscape outside the designated areas and sites is also locally important and highly valued and it is important to respect its special qualities. Minerals and waste developments, even though they may be temporary, can have a negative landscape and visual impact on residents, visitors, users of publicly accessible land, rights of way and roads.
- 7.31 In general, most mineral developments are tied to countryside locations as this is where the most unsterilized viable mineral deposits are available. Other activities essential for supplying minerals are also located in the countryside including mineral processing or aggregate recycling.
- 7.32 Some waste uses, such as large scale facilities requiring an open site are difficult to accommodate in urban areas. Waste uses not requiring a more isolated location and minerals developments that are not specifically linked to the natural occurrence of a mineral, should be located in urban areas. However, this is not always feasible on amenity grounds.
- 7.33 Appropriately managed minerals and waste development is important to support employment and provision of services in rural areas.

Policy DM5

Protection of the Countryside

Minerals and waste development in the open countryside will only be permitted where:

- a) It is a time-limited mineral extraction or related development; or
- b) The development provides a suitable reuse of previously developed land; or
- c) The development is within redundant farm or forestry buildings and their curtilages or hard standings.

Where appropriate and applicable, development in the countryside will be expected to meet the highest standards of design, operation and restoration including being subject to a requirement that it is restored in the event it is no longer required for minerals and waste use.

Implementation

- 7.34 The 'countryside' (not covered by other designations such as Green Belt) within the Plan area is defined by the settlement boundaries as set out in the Central & Eastern Berkshire Authority Local Plans.

- 7.35 Where minerals or waste developments are located close to, or would directly impact a statutory public right of way footpath network, measures should be put in place to protect or divert the route (for a temporary or permanent period, as appropriate). This includes adopted public footpaths, bridleways and cycle routes. Minerals and waste development may also provide benefits for rural communities such as opportunities for enhanced public access and recreation, especially as part of the restoration of minerals or waste developments.
- 7.36 Where they are located close to, or would directly impact on a permissive footpath, the use of this route for public access would be considered as part of any planning application. Permissive footpaths do not carry the same weight as adopted public rights of way.
- 7.37 Minerals and waste proposals that are proposed in the countryside that cannot be accommodated by Policy DM5 would be considered as a departure from the Plan.
- 7.38 High quality design is outlined in Policy DM12 and the requirements for restoration are provided in DM8.

Monitoring

- 7.39 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on the countryside	Number of planning permissions granted in the countryside contrary to policy > 0	n/a
	For exceptional developments (not in accordance with policy), number of planning permissions granted without restoration conditions > 0	n/a

Green Belt

- 7.40 The eastern part of the Plan Area is situated within the Metropolitan Green Belt around London (see Key Diagram). 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.
- 7.41 Proposals for minerals and waste development within the Green Belt will be considered in light of their potential impacts and the National Planning Policy Framework.
- 7.42 There is a presumption against inappropriate development within the Green Belt. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

Policy DM6 Green Belt

Proposals for minerals and waste development within the Metropolitan Green Belt will be carefully assessed for their effect on the objectives and purposes for which the designation has been made. High priority will be given to preservation of the openness of the Green Belt.

Where the proposals do not conflict with the preservation of the openness of the Green Belt, waste management facilities, including aggregate recycling facilities will be permitted where it can be demonstrated:

- a. that the site is the most suitable location in relation to arisings and recycle markets;
- b. there are no appropriate sites outside the Green Belt that could fulfil the same role; and
- c. that suitable mitigation is provided to ensure the development would not cause harm to the objectives and purposes of the Green Belt.

Implementation

- 7.43 When considering any planning application, the planning authority will ensure that substantial weight is given to protection of the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

- 7.44 The NPPF⁶⁸ states that minerals extraction, engineering operations and the re-use of buildings provided that the buildings are of permanent and substantial construction are not inappropriate development in the Green Belt provided that they preserve the openness of the Green Belt and proposals do not conflict with the purpose of including land in the Green Belt.
- 7.45 A processing plant, although commonly associated with mineral extraction, is unlikely to preserve openness, owing to its size, height and industrial appearance and would therefore be inappropriate development.
- 7.46 Elements of many renewable energy projects will also comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources. Sequential testing to show that other suitable sites are not available will also be required.
- 7.47 Within the Green Belt, the Central & Eastern Berkshire Authorities will plan positively to enhance the beneficial use of the Green Belt, by retaining and enhancing landscapes, visual amenity and biodiversity, by improving damaged and derelict land, and by looking for opportunities to increase access or provide for outdoor sport and recreation.
- 7.48 The disposal of inert waste can play a part in the restoration of mineral workings, and may therefore be acceptable in the Green Belt as in other areas, and subject to policies to encourage the recycling of materials as part of a sustainability strategy. Restoration may provide opportunities to enhance beneficial use of the Green Belt. The development of permanent waste management facilities will be judged on the locational needs of the development and the impact on the area, landscape, biodiversity and other issues. This, together with the wider environmental and economic benefits of sustainable waste management are material considerations that should be given significant weight in determining whether proposals for waste management facilities on Green Belt land should be given planning permission.

⁶⁸ National Planning Policy Framework (Para. 90):
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Monitoring

7.49 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on the Green Belt.	Number of planning permissions granted in the Green Belt contrary to policy > 0	n/a
	For exceptional developments (not in accordance with policy), number of planning permissions granted without restoration conditions > 0	n/a

Conserving the Historic Environment

- 7.50 Minerals and waste development can play a positive role in promoting archaeological investigations and protecting heritage assets including the record of historically or architecturally significant structures. Central and Eastern Berkshire's historic environment requires protection for the enjoyment and benefit of future generations.
- 7.51 The historic environment covers all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged as well as landscaped and planted or managed flora.
- 7.52 The NPPF identifies the conservation of such heritage assets as one of the core land-use planning principles that underpin both plan-making and decision-taking; it states that heritage assets should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life by today's and future generations⁶⁹.

Policy DM7

Conserving the Historic Environment

Proposals for minerals and waste developments will be required to protect and preserve the historic environment and heritage assets of the Central & Eastern Berkshire Authorities, including both designated and non-designated assets, including the settings of these sites.

The following assets will be protected in accordance with their relative importance:

- a) Scheduled Ancient Monuments;
- b) Listed buildings;
- c) Conservation areas;
- d) Registered parks and gardens;
- e) Registered battlefields;
- f) Sites of archaeological importance; and
- g) Other locally recognised assets.

Minerals and waste development should preserve, and where possible, enhance the character or appearance of historical assets unless it is demonstrated that the need for and benefits of the development decisively outweigh these interests and impacts will be mitigated.

⁶⁹ National Planning Policy Framework (Para, 17) -

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

Implementation

- 7.53 Any decision on planning applications for minerals and waste development should be informed by an assessment, proportionate to the circumstances, of any impacts on the historic environment. This should include an appropriate level of field investigation if necessary and a screening to be submitted with the planning application.
- 7.54 There may be previously unidentified archaeological deposits and features present in proposed minerals and waste sites. Further archaeological investigations to an agreed methodology will be required in areas of interest prior to development.
- 7.55 Issues of historic environment that need to be considered, may require prior investigation (including pre-determination evaluation fieldwork) and mitigation measures, including methods of working, which take these into account.
- 7.56 Minerals or waste developments will be considered on their merits, assessing the suitability of the proposal, measures for conservation, suggested mitigation measures, as well as the potential benefits of mineral development for archaeology⁷⁰ such as enhanced setting or site management, and measures for the enhancement of historic assets affected by the proposed development.
- 7.57 Major historic features, such as Scheduled Ancient Monuments located or discovered on sites proposed for minerals and waste development must be preserved as part of the development, and enhancement secured, as appropriate.

Monitoring

- 7.58 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on Historic Environment	Number of planning permissions contrary to Historic England advice > 0	n/a

⁷⁰ Please note this does not include the 'benefits of archaeological recording as mitigation' (see NPPF para 141).

Restoration of Minerals and Waste Developments

- 7.59 Effective restoration and long-term aftercare of minerals and waste development is integral to all mineral extraction and landfill development in Central and Eastern Berkshire. Extracting minerals and landfilling are long-term land uses, but they are only temporary developments. It is critical that restoration and aftercare of the site is carefully planned and maintained to ensure that local communities and the environment receive maximum benefit after the development has been completed.
- 7.60 Once mineral extraction and landfilling has been completed, a site may be returned to the former land use or to a number of different 'after-uses'. The restoration of minerals and waste sites will usually involve the removal of buildings, plant and equipment used for winning or processing the materials and may also include the decontamination of land prior to restoration, depending on the type of development.
- 7.61 The nature of restoration activity depends on the choice of after-use, which is influenced by a variety of factors including:
- the aspirations of the landowner(s) and the local community;
 - the present characteristics of the site and its environs;
 - any strategies for the area (such as biodiversity priorities and any landscape planning guidance);
 - the nature, scale and duration of the proposed development; and
 - the availability and quality of soil resources.
- 7.62 Restoration, aftercare and after-use will usually seek to assure that the land is restored a quality at a level at least equivalent to that which it was prior to development commencing. Wherever possible restoration schemes should provide for:
- the enhancement of the quality of the landscape, local environment or the setting of historic assets to the benefit of the local or wider community; and .
 - measures to improve biodiversity interests whatever the proposed after-use of the site.

Policy DM8

Restoration of Minerals and Waste Developments

Planning permission for minerals extraction and temporary waste management development will be granted only where satisfactory provision has been made for high standards of restoration and aftercare such that the intended after-use of the site is achieved in a timely manner, including where necessary for its long-term management.

The restoration of minerals and waste developments should reinforce or enhance the character and setting of the local area, and should contribute to the delivery of local objectives for biodiversity, landscape character, historic environment or community use where these are consistent with the Development Plan.

The restoration of mineral extraction and landfill sites should be phased throughout the life of the development.

Implementation

7.63 The Central & Eastern Berkshire Authorities will continue to ensure that all mineral extraction sites and landfill sites are restored to beneficial after-uses which are in keeping with the local area's biodiversity, landscape or townscape and communities.

7.64 Consideration needs to be given to the following factors:

- Type, quality and value of the land prior to extraction (for example, agricultural land);
- Presence of important habitats and species prior to development on site and in the local environment;
- Local ecological networks;
- Existing hydrological regime;
- Underlying geology;
- Local topography and landscape character/setting;
- Presence of important archaeological features and historic context;
- Proximity of urban areas and aerodromes;
- Compatibility with surrounding land uses;
- Availability of fill material;
- Planning policy framework;
- Landowner / site operator aspirations;
- Views of local community and other stakeholders;
- Transport issues;
- Public safety;

- Long-term management considerations; and
- Financial considerations.

7.65 For the initial years following restoration (usually a 5-year period but this may be extended⁷¹) site aftercare measures are required to ensure that the reinstatement of soils and the planting or seeding carried out to meet restoration requirements are managed so that a site is returned to its intended after-use in a timely manner.

7.66 These measures involve improving the structure, stability and nutrient value of soils, ensuring adequate drainage is available and securing the establishment and management of the grass sward, crop or planting areas, together with any other maintenance as may be required. The aftercare scheme normally requires two levels of details to be provided, these are:

- The outline strategy for the whole of the aftercare period;
- A detailed strategy for the forthcoming year.

7.67 Restoration and aftercare plans should take into consideration community needs and aspirations. Local interest groups and community representatives should be consulted and their viewpoints incorporated into the proposals wherever possible and appropriate. Restoration and aftercare plans for mineral development need to be reviewed and updated periodically, in accordance with legislation.

7.68 A Restoration Study⁷², which accompanies this Plan, provides greater detail and guidance on after-use, aftercare and restoration and should be read in conjunction with this policy.

⁷¹ For example, this may occur when restoration is to a particular nature conservation afteruse.

⁷² Restoration Study (June 2018) – www.hants.gov.uk/berksconsult

Monitoring

7.69 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Appropriate and timely restoration.	Number of relevant permissions granted without restoration and aftercare conditions > 0 Number of completed restoration schemes within agreed timescales (not subject to approved extensions of time).	n/a

Protecting Public Health, Safety and Amenity

7.70 Minerals and waste development can have impacts on the environment and local communities. The use of machinery and lighting can result in noise, light and air pollution and also affect the amenity and public health of nearby communities and businesses and other land uses such as sport, recreation or tourism.

7.71 It is important that the minerals and waste industry in Central and Eastern Berkshire do not adversely impact upon the health and amenity of the surrounding environment and communities, and appropriate suitable mitigation measures are used to reduce the risk of unacceptable adverse impacts occurring.

Policy DM9 Protecting Public Health, Safety and Amenity

Planning permission will be granted for minerals and waste development only where it can be demonstrated that it will not generate unacceptable adverse impacts on the public health, safety and amenity of local communities and the environment.

Minerals and waste development should not:

- a) Release emissions to the atmosphere, land or water (above appropriate standards);
- b) Have an unacceptable impact on human health;
- c) Cause unacceptable noise, dust, lighting, vibration or odour;
- d) Have an unacceptable visual impact;
- e) Potentially endanger aircraft from bird strike and structures;
- f) Cause an unacceptable impact on public safety safeguarding zones;
- g) Cause an unacceptable impact on public strategic infrastructure;
- h) Cause an unacceptable cumulative impact arising from the interactions between minerals and waste developments, and between mineral, waste and other forms of development.
- i) Cause an unacceptable impact on:
 - i. Tip and quarry slope stability; or
 - ii. Differential settlement of quarry backfill and landfill; or
 - iii. Subsidence and migration of contaminants.

Where it is considered that there will be adverse impacts, applicants will be expected to undertake mitigation to ensure an acceptable degree of potential impact.

Implementation

- 7.72 Many of the criteria outlined in Policy DM9 will be fulfilled by minerals and waste operators adopting appropriate management systems such as International Standards Organisation controls and other operational controls.
- 7.73 The screening of sites and other mitigation measures are often required to ensure an acceptable degree of potential impact of minerals and waste developments on the habitats, landscape, townscape and local communities. It is recommended practice for operational mineral extraction and inert waste recycling sites to have a minimum buffer zone of 100 metres, where appropriate, from the nearest sensitive human receptors, such as homes and schools, though this distance will be reviewed on a case-by-case basis.
- 7.74 Developments handling bio-wastes, such as landfill and composting sites may need a buffer zone of up to 250 metres from sensitive human receptors unless there are exceptional circumstances such as mitigation measures which can reduce the size of the buffer.
- 7.75 Minerals and waste development can affect a community's access to public rights of way, open spaces or outdoor recreation uses whilst the development is in progress. Development could also affect routes favoured by cyclists, equestrians and walkers near minerals and waste sites. It is standard practice for such routes to be diverted if they are impacted by a development. In such instances, it is expected that rights of way will be replaced, diverted or equivalent routes be provided. Minerals and waste development should not negatively affect these features to an unacceptable degree.
- 7.76 Planning permission will be granted for minerals and waste developments where the cumulative impact would not result in significant adverse impacts on the environment of an area or on the amenity of a local community, either in relation to the collective effect of different impacts of an individual proposal, or in relation to the effects of a number of developments occurring either concurrently or successively.
- 7.77 The potential cumulative impacts of minerals and waste development and the way they relate to existing developments must be addressed to an acceptable standard. Where unacceptable impacts are identified, which cannot be addressed through appropriate mitigation measures, planning permission will be refused. Where policy refers to a judgement on 'acceptability', this is defined as being judged acceptable by the relevant authority.

Monitoring

7.78 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on local communities.	Number of planning permissions granted against Environment Agency advice > 0	n/a
	Number of planning permissions granted against Environmental Health Officer advice > 0	n/a

Water Environment and Flood Risk

- 7.79 Central and Eastern Berkshire is heavily influenced by its water sources and there are many streams, rivers, lakes and reservoirs throughout the Plan area.
- 7.80 Minerals and waste development can have significant impacts on flooding, water quantity and water quality. National planning policy on flooding aims to 'steer inappropriate new development to areas with the lowest probability of flooding and sets out a sequential approach for determining appropriate locations'⁷³. This approach is based on the indicative Flood Maps prepared by the Environment Agency (EA).
- 7.81 A Strategic Flood Risk Assessment (SFRA) has been prepared to support this Plan⁷⁴. The assessment looks at the potential flood-risk associated with the minerals and waste site allocations included in the Plan. The assessment considers flooding from rivers, rainfall, groundwater and sewers.

Policy DM10 Water Environment and Flood Risk

Planning permission will be granted for minerals and waste development where proposals do not:

- a) Result in the deterioration of the physical state, water quality or ecological status of any water resource and waterbody including rivers, streams, lakes and ponds; and
- b) Have an unacceptable impact on groundwater Source Protection Zones.

Minerals and waste development in areas at risk of flooding should:

- i. Not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall;
- ii. Incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area and the specific requirements of the site;
- iii. Include site drainage systems designed to take account of events which exceed the normal design standard;
- iv. Not increase net surface water run-off; and
- v. If appropriate, incorporate Sustainable Drainage Systems to manage surface water drainage, with whole-life management and maintenance arrangements.

⁷³ National Planning Policy Framework (Para 100-104) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁷⁴ Strategic Flood Risk Assessment (June 2018) – www.hants.gov.uk/berksconsult

Implementation

- 7.82 To ensure compliance with the Water Framework Directive, minerals and waste developments must not cause any unacceptable adverse impact on local water bodies. However, mineral deposits have to be worked where they are found and these are often located in flood risk areas. Sand and gravel extraction and processing can take place in flood risk areas, provided any potential impact on the site and surrounding area is adequately managed so that the risk of flooding does not increase either within the site or downstream. Applications for minerals and waste proposals within Source Protection Zones should be accompanied by a hydrogeological assessment.
- 7.83 Mineral extraction may provide opportunities for flood water to be alleviated, by providing water storage when the area is restored⁷⁵.
- 7.84 Existing waste developments have the potential to pollute water resources if they are at risk from flooding. Landfill and hazardous waste facilities will not be permitted in Flood Risk Zones 3a and 3b. Historic landfills in areas of flood risk may need to be protected by flood defences.
- 7.85 Proposals in identified areas of flood risk will need to demonstrate that the development of the site will be safe and not result in increased flood risk. Such developments will require the Sequential Test and, where appropriate the Exception Test, to be carried out together with site specific Flood Risk Assessments. Where a flood risk is identified, development should only occur in exceptional circumstances where the Exceptions Test in national guidance is met. A development without a Flood Risk Assessment (FRA), where one is required, will not be supported.
- 7.86 Development of 1 hectare or greater in Flood Zone 1 or all proposals in Flood Zones 2 and 3 require a FRA. The FRA and the advice of the Environment Agency will be taken into account in any decision.

⁷⁵ Restoration Study (June 2018) – www.hants.gov.uk/berksconsult

Monitoring

7.87 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Impact on flood risk.	Number of planning permissions granted against Environment Agency advice > 0	n/a

Sustainable Transport Movements

- 7.88 The sustainable supply of minerals and management of waste resources is dependent on a variety of well maintained transport infrastructure.
- 7.89 One of the roles of this Plan is to encourage the use of sustainable transportation methods including rail, water and conveyors to reduce movements by road. However, as limited opportunities are available within the Plan area to increase the use of sustainable transportation methods, it is acknowledged that most minerals and waste movements will continue to be made by road.
- 7.90 The impact of transporting minerals and waste materials by road can, if not controlled, be significant for sensitive environments and on communities both inside and outside of Central and Eastern Berkshire. A key priority of this Plan is minimising and managing the impact of traffic as traffic can give rise to noise, dust, vibration, congestion and carbon dioxide (CO₂) emissions.
- 7.91 The NPPF supports opportunities for sustainable transport, the provision of safe and suitable access associated with development and the use of alternative methods of transport⁷⁶.

Policy DM11

Sustainable Transport Movements

Minerals and waste development will be expected to demonstrate good connectivity for the movement of materials. A Transport Assessment or Statement of potential impacts on highway safety, congestion and demand management will be required.

Specifically, the assessment should explore how the movement of minerals and/or waste within and outside the site will not be detrimental to road safety and would not have an unacceptable impact on the environment or local community and determine whether highway improvements may be required to mitigate impacts associated with increased vehicle movements.

Where minerals and waste development will require significant road transport, the development will be expected to address alternatives to road-based methods of transportation such as rail, inland waterways, conveyors, pipelines and the use of reverse logistics.

⁷⁶ National Planning Policy Framework (Para. 32) -

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

Implementation

- 7.92 Good connectivity will be established through the Transport Assessment or Statement. Good connectivity will be determined where there is safe site access and suitable access to the Strategic Road Network, rail or waterways. Routing agreements may be required to ensure that access is not permitted on roads which result in unacceptable impacts on communities or the environment.
- 7.93 Highway and pedestrian safety and capacity are issues of paramount importance. Highways England is responsible for considering assessments of the transport impacts of minerals or waste development on the Strategic Road Network. The Highways authority, including the Central and Eastern Berkshire Authorities, is responsible for considering assessments of the transport impacts on the local highway network. The potential and perceived impact of transportation on amenity may include vibration, visual intrusion and air quality. It is therefore beneficial for mineral and waste development to be located either close to the Strategic Road Network, or where there is potential for the sustainable movement of materials and/or where operational road miles can be minimised.
- 7.94 Where the source of waste for a facility may arise from a range of geographic locations, the impact of developing a network of smaller facilities, rather than one larger central facility, should be assessed with respect to the likely transport impacts of both options on congestion, emissions, communities and sites of historic or ecological importance. It is also important that potential cross-boundary impacts and cumulative impacts of minerals and waste development with other local developments are considered.
- 7.95 Alternative methods of transport may provide opportunities to reduce and manage impacts of traffic and reduce potential carbon emissions associated with HGV movements. This may help to offset potential impacts on the climate. Alternative methods may include the use of field conveyors, internal site haul roads, pipelines and the use of rail and inland waterways to transport minerals and waste.
- 7.96 The use of one of the above methods, in particular the use of field conveyors and/or site haul roads at mineral sites, could be implemented in combination with road transport, in order to help reduce the impacts from road transport. However, such mechanical transport mechanisms will also need to be assessed in terms of the impact on health and public amenity in terms of noise, vibration, particulates and air quality.

7.97 The Central & Eastern Berkshire Authorities recognise that these methods may only be appropriate in certain circumstances and will not always be available or suitable as a direct substitution for road transport.

7.98 Reverse logistics involves reducing vehicle movements by bulking when transferring minerals and waste so that, for example, a HGV always enters and exits a site with a full load. The use of alternative methods of transportation and reverse logistics will be supported, as appropriate.

7.99 All minerals and waste development should give the greatest consideration to potential highway and transportation impacts that may be associated with their development. Planning conditions and legal agreements can be used to control and/or manage highway impacts. This may include conditions on hours of working and restrictions on the number of lorry movements or legal agreements for highway improvement works.

Monitoring

7.100 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Transport impacts.	Number of planning permissions against Highways England advice > 0	n/a

High Quality Design of Minerals and Waste Development

- 7.101 The sustainable design and operation of minerals and waste development in Central and Eastern Berkshire is critical in ensuring potential impacts are reduced or avoided. It is also important that the impact of such developments on the qualities of place are taken into account, both to enhance the built environment but also to overcome resistance to the siting of such facilities close to the communities from which waste arises. National planning policy⁷⁷ attaches great importance to the design of the built environment and it is considered to be a key element in achieving sustainable development.
- 7.102 It is important that all minerals and waste developments are designed to minimise the impact upon the environment and the local communities in Central and Eastern Berkshire. It is equally important to encourage all new developments to include high quality design as a standard. There is a need to reduce the amount of greenhouse gas emissions and other forms of emissions, minimise energy and water consumption, reduce waste production and reuse or recycle materials.
- 7.103 Sustainable design initiatives can be achieved by a variety of means such as the incorporation of renewable energy, energy management systems, grey water recycling systems, sustainable drainage systems, energy efficient appliances and the use of recycled and recyclable building materials.

Policy DM12 High Quality Design of Minerals and Waste Development

Proposals for minerals and waste development will be required to demonstrate that they will, wherever possible, make a positive contribution to the visual environment and character of the area.

The design of appropriate built facilities for minerals and waste development should:

1. Maximise the re-use or recycling of materials in its construction;
2. Minimise impact on resources;
3. Protect and enhance the character and quality of the site's setting and the contribution to place making in the area; and
4. Protect and, wherever possible, enhance soils and not result in the net loss of best and most versatile agricultural land.

⁷⁷ National Planning Policy Framework (Para. 56) - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Implementation

- 7.104 The principles of high quality design apply to all developments and it is expected that these should be addressed especially in new development areas where demonstration and employment of best practice would be particularly appropriate. Building activity is a significant contributor to waste production and improved waste management in this sector should be encouraged through the selection of materials and techniques used in construction.
- 7.105 It may be appropriate for large-scale facilities in prominent locations to create a positive architectural statement. All minerals and waste development should also be in accordance with the latest guidance on modern design standards.
- 7.106 Landscape Character Assessments and other relevant landscape planning guidance should be used to assess the capacity of landscapes to accept development, to inform the appropriate scale and character of the development, and guide restoration.
- 7.107 Design and access statements will be required, where appropriate, for minerals and waste developments.

Monitoring

- 7.108 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Improving design quality.	Number of planning permissions not in accordance with Policy DM12.	n/a

Ancillary development

- 7.109 The operation of a mineral or waste site may require the erection of various ancillary structures or buildings to maximise opportunities at a site, to allow for investment or to ensure a sustainable operation. For example, sand and gravel dug from the ground generally requires washing, grading and sorting before it can be put to use. Waste may also require sorting and grading before it can be recycled or disposed. Mineral and waste sites may also need such ancillary structure as site offices, weighbridges or vehicle maintenance buildings.
- 7.110 Certain buildings and structures can be erected at minerals and waste sites without separate planning permission, because general permission is granted for them under the General Permitted Development Order.
- 7.111 Where ancillary development is required which does not fall within the General Permitted Development Order, planning permission will be required.

Policy DM13 Ancillary development

Proposals for buildings and/or structures ancillary to minerals processing or manufacturing, or for structures ancillary to the existing minerals or waste operation, will be supported where they are appropriate and located within the development footprint of the existing site.

Proposals will need to demonstrate how the ancillary development will benefit the site and ensure a sustainable operation.

Development permitted in accordance with this policy will be subject to a requirement that it is used only as ancillary to the primary permission for a site.

Implementation

- 7.112 Ancillary development must relate to the existing permitted minerals and/or waste operation and must not conflict with any of the other policies contained within this Plan.
- 7.113 Proposals that do not relate to the materials being produced, imported or exported at an existing site will not be supported as being ancillary development.

7.114 The development footprint is considered to be the outline of the permitted operation to which the proposed development is ancillary. It is not the extent of the landownership.

Monitoring

7.115 Suggested Monitoring Indicators:

Monitoring Issue	Monitoring Indicator	(Threshold) for Policy Review
Maximising existing infrastructure.	Number of permission not in accordance with Policy DM13.	n/a

Glossary & Acronyms

Adaptation: In relation to Policy DM2 (Climate change - mitigation and adaptation) adaptation relates to ensuring that minerals and waste developments minimise their effect on climate change through reducing greenhouse gas emission, sustainable use of resources, developing energy recovery facilities, utilising low carbon technologies or avoiding areas vulnerable to the effects of climate change.

Aftercare: Action necessary to bring restored land up to the required standard for an agreed after-use such as agriculture, forestry or amenity.

Aggregate recycling site: Facilities where hard, inert materials are crushed and screened (filtered) to produce recycled/secondary aggregate of various grades. Aggregates may be produced from construction, demolition and excavation (CD&E) waste, or incinerator bottom ash (IBA) from energy recovery facilities.

Amenity: Something considered necessary to live comfortably.

Anaerobic Digestion (AD): A biological process making it possible to degrade organic matter by producing biogas, which is a renewable energy source and sludge, used as fertiliser.

Ancient Woodland: A statutory designation for woodland that is believed to have existed from at least medieval times.

Appraisal: An assessment of a proposal for the purposes of determining its value, viability and deliverability taking into account the positive and negative impacts the development would have.

Area of Outstanding Natural Beauty (AONB): Areas of countryside considered to have significant landscape value, and protected to preserve that value. Originally identified and designated by the Countryside Commission under Sections 87 and 88 of the National Parks and Access to the Countryside Act 1949. Natural England is now responsible for designating AONBs and advising Government and other organisations on their management and upkeep.

Beneficial after-use: In relation to Policy DM8 (Restoration of minerals and waste developments), beneficial afteruses are when following minerals or waste development, the land is returned land back to a beneficial condition following the end of development through restoration.

Biodiversity Opportunity Area (BOA): Specific geographical areas with the best opportunity to restore and create habitats of regional importance. They are defined

entirely on the basis of identifying those areas where conservation action is likely to have the most benefit for biodiversity interest and opportunities for enhancement. The purpose of BOAs is to guide support for land management as they represent those areas where assistance for land management and habitat restoration would have particular benefit.

Bird strike: Risk of aircraft collision with birds, which are often attracted to landfill sites containing organic waste or waterbodies.

Borrow pit: Where minerals are required for a particular major construction project, temporary borrow pits can sometimes be developed to obtain very local sources of sand, gravel, chalk or clay. Production from borrow pits is normally limited to use for a specific project, and usually has direct access from the pit to the construction site.

British Geological Survey (BGS): The BGS is part of the Natural Environment Research Council (NERC) and is a supplier of capability in geoscience through survey, monitoring and research.

Brownfield: Land which has been previously developed.

Capacity: Is the amount of waste a site can receive, or in relation to minerals it is the amount of material that can be extracted from a site per annum.

Chalk: A soft white rock primarily formed from the mineral calcite. One of the uses of this mineral is in agriculture.

Civic amenity site: A facility provided by the Local Authority which is accessible to the general public to deposit waste which cannot be collected with the normal household waste, such as bulky items, garden waste and engine oil.

Clay: A fine-grained, firm earthy material that is plastic when wet and hardens when heated, consisting primarily of hydrated silicates of aluminium and widely used in making bricks, tiles, and pottery.

Climate change: The significant and lasting change in the distribution of weather patterns over periods ranging from decades to millions of years and the implications on the environment and community.

Coal measures: The layers of rock specifically from a time that geologists call the Upper Carboniferous period. The Coal Measures were deposited about 310 million years ago, and these layers of rock contain many coal seams. Coal seams are a bed of coal usually thick enough to be profitably mined.

Co-location: The placement of several activities in a single location.

Combined Heat & Power (CHP): Heating technology which generates heat and electricity simultaneously, from the same energy source.

Commercial & Industrial Waste (C&I): Waste generated by business and industry.

Composting: Aerobic decomposition of organic matter to produce compost for use as a fertiliser or soil conditioner.

Concrete batching plant: Devices used to mix various materials, such as sand and gravel, to form concrete.

Construction, Demolition & Excavation Waste (CD&E): Waste generated by the construction, repair, maintenance and demolition of buildings and structures. It mostly comprises brick, concrete, hardcore, subsoil and topsoil but can also include timber, metals and plastics.

Conventional hydrocarbons (oil and gas): Oil and gas where the reservoir is sandstone or limestone.

Corridor of disturbance: An area located on land surrounding a specific construction project where aggregate is extracted as part of the development. The corridor of disturbance relates to 'borrow pits' and indicates the area which aggregate can be extracted for specific projects.

Countryside: Areas that are not urbanised.

Cumulative impact: Impacts that accumulate over time, from one or more sources.

Department of communities and local government (DCLG): The UK Government department for communities and local government in England (now referred to as the Ministry for Housing, Communities and Local Government).

Design and Access Statement: A supporting document submitted with a planning application, in which developers state how their proposal is appropriate for the site and accessible to people who may use it.

Development considerations: These are identified in Appendix A (Proposed Sites) of the Plan and are identified for each of the site allocations in the Plan. Development considerations are issues which need to be met /addressed alongside

the other policies in the Plan in the event that a planning application is submitted for development.

Development Management (DM): Development Management is the end-to-end management of the delivery chain for sustainable development. DM includes a wide number of planning activities such as designing, analysing, influencing, promoting, engaging, negotiating, decision-making, co-ordinating, implementation, compliance and enforcement.

Development Plan Document (DPD): Spatial planning documents which are subject to independent examination.

Disposal: Any operation which is not recovery even where the operation has as a secondary consequence such as the reclamation of substances or energy.

Dry Mixed Recyclables (DMR): Dry recyclables is the modern description of waste that is free from contaminants such as construction, food or garden waste. Leaving clean materials such as paper, cardboard, plastic bottles, drinks cans and glass bottles to be sorted and recycled.

Emissions: In the context of the minerals and waste, emissions are gases released into the atmosphere as a result of human activity. A prominent greenhouse gas is carbon dioxide which arises from the combustion of fossil fuel and consequently contributes to climate change.

End of life vehicle (ELV): Vehicles which are no longer in use and are classified as waste.

Energy Recovery Facility (ERF): A facility at which waste material is burned to generate heat and/or electricity.

Environment Agency (EA): A public organisation with the responsibility for protecting and improving the environment in England and Wales. Its functions include the regulation of industrial processes, the maintenance of flood defences and water resources, water quality and the improvement of wildlife habitats.

Environmental Impact Assessment (EIA): Systematic investigation and assessment of the likely effects of a proposed development, to be taken into account in the decision-making process under the Town and Country Planning (Environment Impact Assessment) (England and Wales) Regulations 1999. The process is undertaken for a proposed development that would significantly affect the environment because of its siting, design, size or scale.

Environmental Permit: Anyone who proposes to deposit, recover or dispose of waste is required to have a permit. The permitting system is administered by the Environment Agency and is separate from, but complementary to, the land-use planning system. The purpose of a permit and the conditions attached to it are to ensure that the waste operation which it authorises is carried out in a way that protects the environment and human health.

Exception test: If developments are proposed in flood risk zones, the Environment Agency's sequential test will be carried out to determine if there are any other appropriate areas of lower flood risk.

Extension (minerals site): This involves either the lateral expansion, or deepening of the quarry to extract additional resources.

Extension (waste site): To provide additional waste capacity in relation to increased throughput and/or footprint of the site. Landfills may be expanded to cover a larger area or may be surcharged – that is, extended vertically upwards.

Flood protection: Protection of land and/or infrastructure from the impacts of flooding through mitigation measures such as coastal and flood water defences.

Flood resilience: The management of land and the development of flood defences to ensure that the risk of flooding is managed in a sustainable way.

Flood risk: Areas which have a flood risk have the potential to flood under certain weather conditions. Flood risk zones are determined by the Environment Agency. Areas at risk of flooding are categorised as follows:

- Flood Risk Zone 1: Low Probability;
- Flood Risk Zone 2: Medium Probability;
- Flood Risk Zone 3a: High Probability; and
- Flood Risk Zone 3b: Functional Floodplain.

Flood Risk Assessment (FRA): An assessment of the risk of flooding from all flooding mechanisms, the identification of flood mitigation measures and should provide advice on actions to be taken before and during a flood.

Flood Risk Zones (FRZ): Defined geographical areas with different levels of flood risk. Flood risk zones are defined by the Environment Agency.

Gas: Is a hydrocarbon (see 'Hydrocarbons'). Gas is a non renewable resource.

Gasification: A waste-treatment process in which waste is heated to produce a gas that is burned to generate heat energy.

Green Belt: An area designated in planning documents, providing an area of permanent separation between urban areas. The main aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the most important quality of Green Belts is their openness.

Green infrastructure (green spaces): A network of high quality green and blue spaces and other environmental features. It includes parks, open spaces, playing fields, woodlands, wetlands, grasslands, river and canal corridors allotments and private gardens. It can provide many social, economic and environmental benefits close to where people live and work including:

- space and habitat for wildlife with access to nature for people;
- places for outdoor relaxation and play;
- climate change adaptation (for example flood alleviation and cooling urban heat islands);
- environmental education;
- local food production (in allotments, gardens and through agriculture); and
- improved health and well-being (lowering stress levels and providing opportunities for exercise).

Green waste: Compostable garden waste.

Groundwater Source Protection Zones (GPZ): Geographical areas, defined by the Environment Agency, used to protect sources of groundwater abstraction.

Habitats Regulation Assessment (HRA): Statutory requirement for Planning Authorities to assess the potential effects of land-use plans on designated European Sites in Great Britain. The Habitats Regulations Assessment is intended to assess the potential effects of a development plan on one or more European Sites (collectively termed 'Natura 2000' sites). The Natura 2000 sites comprise Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). SPAs are classified under the European Council Directive on the conservation of wild birds (79/409/EEC; Birds Directive) for the protection of wild birds and their habitats (including particularly rare and vulnerable species listed in Annex 1 of the Birds Directive, and migratory species).

Hazardous waste: Waste that contains hazardous properties that may render it harmful to human health or the environment. Hazardous wastes are listed in the European Waste Catalogue (EWC).

Health and Safety Executive (HSE): The national independent watchdog for work-related health, safety and illness.

Heavy goods vehicles (HGV): A vehicle that is over 3,500kg unladen weight and used for carrying goods.

Hectare (Ha)

Highways Authority: The organisation responsible for the administration of public roads.

Household waste: Waste arising from domestic property which has been produced solely from the purposes of living, plus waste collected as litter from roads and other public places.

Hydrocarbons: Hydrocarbon comprising petroleum (oil and gas natural liquids) and gas are fossil fuels that occur concentrated in nature as economic accumulations trapped in structures and reservoir rocks beneath the earth surface. They are principally valued as a source of energy.

Incinerator Bottom Ash (IBA): The coarse residue left on the grate of waste incinerators.

Inert waste: Waste that does not undergo any significant physical, chemical or biological changes.

Landbank: A measure of the stock of planning permissions in an area, showing the amount of un-exploited mineral, with planning permissions, and how long those supplies will last at the locally apportioned rate of supply.

Landscape character: A combination of factors such as topography, vegetation pattern, land use and cultural associations that combine to create a distinct, recognisable character.

Land-won aggregates / minerals: Mineral/aggregate excavated from the land.

Landfill: The deposit of waste into voids in the ground.

Leachate: Water which seeps through a landfill site, extracting substances from the deposited waste to form a pollutant.

Listed Buildings and Sites: Buildings and sites protected under the Planning (Listed Buildings and Conservation Areas) Act 1990.

Local Aggregate Assessment (LAA): The National Planning Policy Framework (March 2012) brought in a requirement for all Mineral Planning Authorities to prepare an annual LAA. LAAs are to be based on a rolling average of 10 years sales data and other relevant local information, and an assessment of all supply options. The LAA establishes the provision to be made for aggregate supply in Mineral Local Plans.

Local Development Document: These include Development Plan Documents (DPDs) (which form part of the statutory development plan) and Supplementary Planning Documents (which do not form part of the statutory development plan).

Local Enterprise Partnership (LEP): In England, local enterprise partnerships (LEPs) are voluntary partnerships between local authorities and businesses set up in 2011 by the Department for Business, Innovation and Skills to help determine local economic priorities and lead economic growth and job creation within the local area.. Central and Eastern Berkshire is located within the Thames Valley Berkshire Local Enterprise Partnership (LEP) area.

Local Wildlife Site (LWS): LWSs are wildlife-rich sites selected for their local nature conservation value. They vary in shape and size and can contain important, distinctive and threatened habitats and species.

Low carbon technologies: These are a range of technologies developed to specifically reduce the amount of carbon dioxide (CO₂) released into the atmosphere.

Managed Aggregate Supply System (MASS): A system to ensure a steady and adequate supply of aggregate mineral, to handle the significant geographical imbalances in the occurrence of suitable natural aggregate resources, and the areas where they are most needed. It requires mineral planning authorities which have adequate resources of aggregates to make an appropriate contribution to national as well as local supply, while making due allowance for the need to control any environmental damage to an acceptable level. It also ensures that areas with smaller amounts of aggregate make some contribution towards meeting local and national need where that can be done sustainably.

Material considerations: A matter that should be taken into account in deciding a planning application or on an appeal against a planning decision. Material considerations can include (but are not limited to); overlooking/loss of privacy, loss of light or overshadowing, parking, highway safety, etc. Issues such as loss of view, or negative effect on the value of properties are not material considerations.

Materials recovery facility (MRF): A facility where elements of the waste stream are mechanically or manually separated before recycling and/or are bulked, crushed, baled and stored for reprocessing, either on the same site or at a material reprocessing plant.

Methane: The main constituent of natural gas (a fossil fuel). It is found in naturally occurring gas field deposits within the ground, but can also be harvested as a by-product of anaerobic decomposition of organic materials by bacteria. Methane is used as fuel to generate heat and power, and when released into the atmosphere acts as a powerful greenhouse gas, and is much more potent than carbon dioxide.

Ministry for Housing, Communities and Local Government (MHCLG): The Ministry of Housing, Communities and Local Government's (formerly the Department for Communities and Local Government) job is to create great places to live and work, and to give more power to local people to shape what happens in their area.

Million tonnes (mt)

Million tonnes per annum (mtpa)

Mineral: Limited and finite natural resources which can only be extracted where they are found geologically.

Minerals and Waste Consultation Area (MWCA): An area identified to ensure consultation between the planning authorities before certain non-mineral or waste planning applications made within the area are determined.

Minerals and Waste Safeguarding Area (MWSA): An Minerals Safeguarding Area (see MSA) which also includes minerals and waste safeguarded sites.

Mineral resources: Mineral aggregates and hydrocarbons, which naturally occur in geological deposits in the earth.

Mineral Planning Authority: The local planning authorities responsible for minerals planning. In the Plan area, The Royal Borough of Windsor and Maidenhead, Bracknell Forest Council, Reading, and Wokingham Borough Council are minerals planning authorities.

Mineral Safeguarding Area (MSA): The MSA is defined by minerals planning authorities. They include viable resources of aggregates and are defined so that proven resources of aggregates are not sterilised by non-mineral development. The MSA does not provide a presumption for these resources to be worked.

Migration: This is the process by which negative or harmful effects caused by a development are prevented or lessened by incorporating countermeasures into the design or operation.

Mitigation measures: Measures that reduce or minimise impacts.

Monitoring: Minerals and waste developments are monitored to ensure that they comply with the policies of the Plan and planning conditions attached to their permissions. The Plan will also be subject to monitoring.

Monitoring Indicator: This is the aspect of the development that will be monitored in order to detect any deviation from what is either expected of the development or acceptable.

Monitoring Trigger: The threshold that, once passed, signifies there is an issue with the relevant policy in its current form and may require review.

Municipal Solid Waste (MSW): Solid waste collected by waste collection authorities, predominantly household waste.

National Planning Policy Framework (NPPF): Published in March 2012, the NPPF sets out the Government's planning policies for England and how these are expected to be applied. A review of the NPPF is being considered in 2018.

Natural England: Public body tasked with the conservation and improvement of the natural environment. Natural England designates Areas of Outstanding Natural Beauty and National Parks, manages National Nature Reserves and notifies Sites of Special Scientific Interest.

Non-hazardous waste landfill: One of the three classifications of landfills made by the Landfill Directive, taking non-hazardous waste.

Non-hazardous waste: Waste permitted for disposal at a non-hazardous landfill. It is not inert or hazardous and includes the majority of household and commercial wastes.

Oil: Is a hydrocarbon (see 'Hydrocarbons'). Oil is a non renewable resource.

Oil and gas: Is a hydrocarbon (see 'Hydrocarbons'). Oil and gas are non renewable resources.

Open windrow composting: Involves the raw material (usually green and/or garden waste and cardboard) being arranged outdoors in long narrow piles on a hard and preferably impermeable surface. The windrows are mixed and turned regularly for aeration, by hand or mechanically.

Other locally recognised assets: In relation to Policy DM7 (Conserving the Historic Environment) other locally recognised assets are non designated assets which, although do not have any statutory protection, are recognised locally as making a significant and positive contribution to local historic knowledge, character and features.

Petroleum Exploration and Development Licence (PEDL): A PEDL allows a company to pursue a range of oil and gas exploration activities, subject to necessary drilling/development consents and planning permission.

Planning application: Operators proposing a new minerals or waste development need to apply for permission from the relevant planning authority in order to be allowed carry out their operations.

Planning permission: Once planning applications have been reviewed by the relevant planning authority, permission may be granted (i.e. consent for the proposed development is given). Permissions may have certain conditions or legal agreements attached which allow development as long as the operator adheres to these.

Policies Map: A map on an Ordnance Survey base showing spatial application of appropriate policies from the Development Plan.

Preparing for re-use: Checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.

Pre-application discussions: Engagement / discussions between applicants (and their agents) with the relevant minerals and waste planning authority prior to any application being submitted.

Production: Obtaining useful end products from minerals or waste material which may include the extraction of sand and gravel, producing recycled and secondary aggregate, extraction of oil and gas and the generation of energy from waste.

Prior Extraction: The removal of a mineral before a development begins construction on the same site.

Quarry: These are open voids in the ground from which minerals resources are extracted.

Rail depot: A railway facility where trains regularly stop to load or unload passengers or freight (goods). It generally consists of a platform and building next to the tracks providing related services.

Ramsar Sites (Wetlands of International Importance): Sites of international importance for waterfowl protected under the Ramsar Convention of the Conservation of Wetlands of International Importance, ratified by the UK Government in 1976.

Re-use: Any operation by which products or components that are not waste are used again for either the same purpose for which they were conceived or other uses.

Recovery: Any operation, the principal result of which, is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

Recycled aggregates: Products manufactured from recyclables or the by-products of recovery and treatment processes, e.g. recycled concrete aggregates from CD&E waste.

Recycling: The series of activities by which discarded materials are collected, sorted, processed and converted into raw materials and used in the production of new products. Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.

Regeneration: Investment in capital in the review of urban area by improving what is there or clearing it away and restoring.

Registered battlefields: Registered battlefields are identified by Historic England as important English battlefield. They are identified because:

- They were the location of turning points in English history;
- Tactics and skills of war still relevant to the defence of the country evolved on historic battlefields;

- Battlefields are the final resting place for thousands of unknown soldiers, nobles and commoners alike, whose lives were sacrificed in the making of the history of England;
- Where they survive, battlefields may contain important topographical and archaeological evidence which can increase our understanding of the momentous events of history which took place on their soil.

Registered parks and gardens: Registered parks and gardens are identified by Historic England. They are listed and classified in a similar system to that used for listed buildings. There are over 1,600 sites listed in England, ranging from the grounds large stately homes to small domestic gardens, as well other designed landscapes such as town squares, public parks and cemeteries.

Renewable energy: Energy which comes from natural resources such as sunlight, wind, rain, tides and geothermal heat, which are naturally replenished.

Residues: Material remaining after a process has been undertaken eg waste processing can involve incineration which leaves residues of bottom ash and fly ash. See 'Incinerator Bottom Ash'.

Restoration: The process of returning a site to its former use, or restoring it to a condition that will support an agreed after-use, such as agriculture or forestry.

Reverse logistics: Involves reducing vehicle movements by load bulking when transferring minerals and waste, for example, ensuring a HGV always enters and exits a site with a full load.

Rights of Way (RoW): Paths which the public have a legally protected right to use.

Routeing agreement: An agreement to require that vehicles be routed so as to avoid certain roads, possibly at all times or possibly at certain times of day e.g. to avoid conflict with peak hour traffic and/or arrivals and departures at school opening and closing times.

Safeguarding: The method of protecting needed facilities or mineral resources and of preventing inappropriate development from affecting it. Usually, where sites are threatened, the course of action would be to object to the proposal or negotiate an acceptable resolution.

Safeguarded site: Safeguarding protects minerals and waste sites from development pressures and inappropriate encroachment from nearby developments, preventing the unnecessary sterilisation of their associated resources and infrastructure.

Scheduled Ancient Monument: Nationally important archaeological sites included in the Schedule of Ancient Monuments maintained by the Secretary of State under the Ancient Monuments and Archaeological Areas Act 1979.

Secondary aggregate: Materials that do not meet primary aggregate (e.g. sand/gravel and crushed rock) specifications but which can be used instead of them. Secondary aggregates are by-products of other processes, including the production of primary aggregates.

South East England Aggregate Working Party (SEEAWP): The aggregate working parties provide technical advice about the supply and demand for aggregates (including sand, gravel and crushed rock) to the mineral planning authorities for the area and to inform the Secretary of State for Communities and Local Government. The SEEAWP is formed of the mineral planning authorities in the south east and relevant industry representatives.

Sensitive Human Receptors: Locations where people live, sleep, work or visit that may be sensitive to the impact of minerals and waste activity on health, well-being and quality of life. Examples include houses, hospitals and schools.

Sewage sludge: Once the liquid component of sewage has been treated, a residual semi-solid 'sludge' is left which requires further treatment. The sludge can be digested by anaerobic bacteria to produce fertiliser which can then be used in agriculture.

Sequential test: This is a test employed by the Environment Agency (EA) to ensure new development takes place in the areas with the lowest risk of flooding. This approach means that development will not be allowed or allocated in any areas where there is another area at a lower flood risk (and is appropriate for that development). As statutory consultees, the EA will inform any decisions on planning applications in relation to flooding.

Sharp sand and gravel: A coarse sand and gravel suitable for use in making concrete.

Site allocations: Specific sites identified for minerals and waste activities in the Plan where there are viable opportunities, have the support of landowners and are likely to be acceptable in planning terms.

Site of Special Scientific Interest (SSSI): A national designation for an area of special interest because of its flora, fauna, or geological or physiographical features,

selected by Natural England and notified under Section 28 of the Wildlife and Countryside Act 1981.

Sites of Archaeological Importance: An archaeological site the loss, destruction or damage of which would be regarded as a substantive intellectual loss to the community.

Sludge: Sludge originates from the process of treatment of waste water.

Soft sand: Fine sand suitable for use in such products as mortar, asphalt and plaster.

Source Protection Zone (SPZ): Geographical areas defined by the Environment Agency and used to protect sources of groundwater abstraction.

South East Waste Planning Advisory Group (SEWPAG): SEWPAG is the grouping of waste planning officers and advisors which exists to help waste planning authorities in the area to effectively fulfil the Duty to Cooperate on strategic issues enshrined in the Localism Act, and specifically to give effect to the Government's stated intention to replace the responsibilities of the former Regional Technical Advisory Bodies.

Spatial Strategy: Outlines the approach that will be taken through the Central and Eastern Berkshire – Joint Minerals and Waste Plan to critical minerals and waste issues. It sets the context for the Plan's policies.

Special Area of Conservation (SAC): Areas which have been given special protection under the European Union's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.

Special Protection Area (SPA): An area of importance for the habitats of certain rare or vulnerable categories of birds or for regularly occurring migratory bird species, required to be designated for protection by member states under the European Community Directive on the Conservation of Wild Birds.

Specific local requirement: In relation to Policy M4 (Locations for sand and gravel extraction) a specific local requirement relates to a minerals development which will be dedicated to serving a specific need, as opposed to contributing to strategic capacity. This may include for use in local projects which will involve mineral extraction and then its direct use in the construction phase of the project.

Statement of Community Involvement (SCI): A document which sets out the standards the Planning Authority intends to achieve when involving the community in preparing Local Development Documents, or when making a significant development control decision. It also sets out how the Authority intends to achieve these standards.

Statutory consultee: These are organisations and public bodies who are required to be consulted concerning specific issues relating to planning applications and help inform any decision made by the planning authority.

Sterilisation: When a change of use, or the development, of land prevents possible mineral exploitation in the foreseeable future.

Strategic Environmental Assessment (SEA): A system of incorporating environmental considerations into policies, plans, programmes and part of European Union Policy. It is intended to highlight environmental issues during decision-making about strategic documents such as plans, programmes and strategies. The SEA identifies the significant environmental effects that are likely to result from implementing the plan or alternative approaches to the plan.

Strategic Flood Risk Assessment (SFRA): An assessment of the potential flood risk such as from groundwater and fluvial floods.

Strategic Road Network: The SRN is made up of motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England. All other roads in England are managed by local and regional authorities.

Subsidence: Subsidence is the motion of a surface as it shifts downward (in relation to Policy DM9 Protecting Public Health, Safety and Amenity). This may cause uneven settlement leading to subsidence at the surface.

Sustainability Appraisal (SA): In United Kingdom planning law, an appraisal of the economic, environmental, and social effects of a plan from the outset of the preparation process, to allow decisions that are compatible with sustainable development.

Sustainable development: Sustainable development refers to a mode of human development in which resource use aims to meet human needs while ensuring the sustainability of natural systems and the environment, so that these needs can be met not only in the present, but also for generations to come.

Sustainable Drainage Systems (SuDS): These are urban design concepts which are adopted to deal with increased surface water in urban areas by mimicking the normal water cycle in natural landscapes. This is opposed to more traditional methods which just involved re-routing surface water to watercourses. Techniques utilised in SuDS include facilitating increased water infiltration into the earth as well as increased evaporation of surface water and transpiration from vegetation (collectively called evapotranspiration) to decrease the amount of surface water run-off.

Thermal treatment: Incineration and other high-temperature waste-treatment systems.

Tonnes per annum (tpa)

Townscape: The appearance of a town or city; an urban scene.

Treatment: This is a broad term which refers to recovery or disposal operations, including preparation prior to recovery or disposal. This includes the physical, thermal, chemical or biological processes, including sorting (e.g. waste transfer), that change the characteristics of the waste in order to reduce its volumes or hazardous nature, facilitate its handling or enhance recovery.

Urban areas: An area characterised by higher population density and vast human features in comparison to areas surrounding it. Urban areas may be cities, towns or conurbations.

Use Classes: The Town and Country Planning (Use Classes) Order 1987 (as amended) puts uses of land and buildings into various categories known as Use Classes. This includes B1 (Business), B2 (General Industrial) and B8 (Storage or Distribution).

Visual impact: Generally the perceived negative effect that the appearance of minerals and waste developments can have on nearby communities.

Void capacity: Available capacity for waste at a landfill/ land raising site.

Waste arisings: Waste generated within a specified area.

Waste Hierarchy: The aim of the waste hierarchy is to extract the maximum practical benefits from products and to generate the minimum amount of waste. The revised Waste Framework Directive introduces a changed hierarchy of options for managing waste. It gives top priority to preventing waste. When waste is created, it

gives priority to preparing it for re-use, followed by recycling, then other recovery such as energy recovery, and finally disposal (for example landfill).

Waste Planning Authority (WPA): The local planning authorities responsible for waste planning. In the Plan area, The Royal Borough of Windsor and Maidenhead, Bracknell Forest Council, Reading Borough Council, and Wokingham Borough Council are waste planning authorities.

Waste Transfer Station (WTS): A location where waste can be temporarily stored, separated and bulked after being dropped off by domestic waste-collection lorries and before being carried off by larger vehicles for subsequent treatment or ultimate disposal.

Waste Water Treatment Works (WWTW): A facility where sewage volumes are reduced by de-watering and aerobic and anaerobic biological treatment.

Wharf: A landing place or pier where ships or barges may tie up and load or unload.

Zero waste: A term adopted to describe a culture in which all waste is seen as a resource having a value.

Appendix A – Proposed Sites

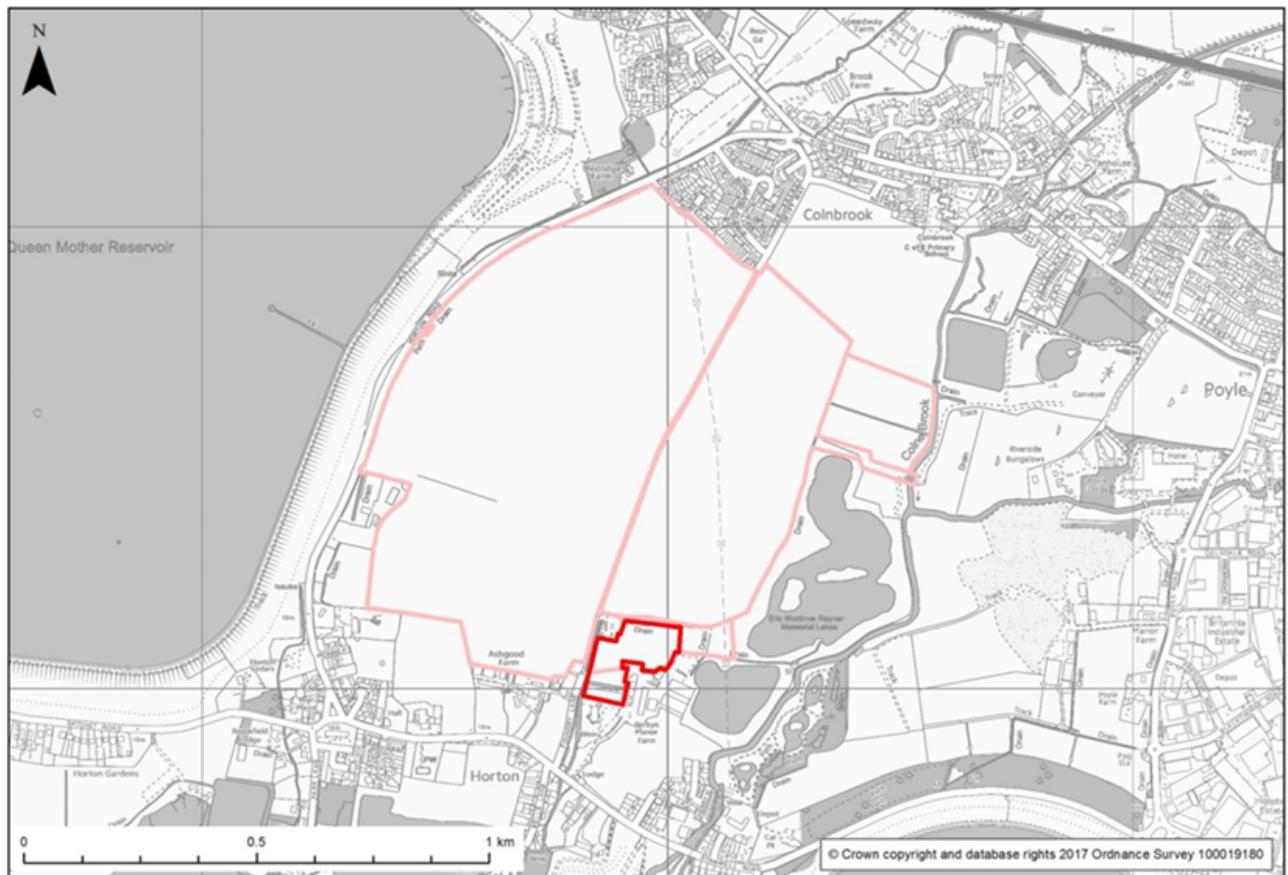
1. The following appendix provides information on the minerals and waste sites (listed alphabetically) that are proposed as allocations within the Plan:

Site Name	Location	Local Plan Authority	Proposal
Berkyn Manor Farm	Horton	RBWM	Waste Management
Bridge Farm	Arborfield	Wokingham	Sand and Gravel Extraction
Datchet Quarry / Riding Court Farm	Datchet	RBWM	Waste Management
Ham Island	Old Windsor	RBWM	Sand and Gravel Extraction
Horton Brook Quarry	Horton	RBWM	Waste Management
Monkey Island Wharf	Bray	RBWM	Aggregate Wharf
Planners Farm	Brock Hill	Bracknell Forest	Waste Management
Poyle Quarry	Horton	RBWM	Sand and Gravel Extraction
Poyle Quarry Extension	Horton	RBWM	Sand and Gravel Extraction
Star Works	Knowl Hill	Wokingham	Waste Management
The Compound	Pinkneys Green	RBWM	Waste Management
Water Oakley	Holyport	RBWM	Sand and Gravel Extraction

2. The delineation of the site is shown by the red boundary. In the case of mineral extraction sites, it does not mean that working would extend to the site boundary as the allocation needs to include provision for buffer zones and mitigation measures. These will be determined through detailed site investigation, taking into account the development considerations for each site. Such measures will be covered by the planning permission, including the relevant conditions and / or legal agreements. It may also include provision for ancillary development such as plant, offices, access and weighbridge.

3. In the case of proposed waste sites, types of waste activity that are considered suitable are provided. More detail on these activities is provided in Appendix B.
4. Development considerations are identified in the text accompanying each map in this appendix. They should be addressed alongside the other policies of the Plan. Development should be designed with appropriate mitigation measures, where applicable, to avoid or mitigate its impacts on the environment and local communities. Development considerations apply to minerals and waste developments in Central and Eastern Berkshire, but may also include impacts that extend beyond the Plan boundary.
5. Development cannot be permitted if it may negatively affect the integrity of European protected sites. The development requirements for maintaining this integrity are identified with an asterisk (*) in the text and must be addressed.
6. The Plan does not specify how the development considerations may be addressed. This will be assessed at the planning application stage, which should present the most appropriate responses, which are likely to include detailed site appraisals and Environmental Impact Assessment (EIA). These will identify what effects the development will have, and how to tackle them. All assessment information and suggested mitigation measures should be clearly identified and form part of the pre-application discussions and consultation with communities.
7. For any development proposal at the sites identified in the Plan, all elements of the Plan need to be considered as well as the site-specific development considerations outlined in this Appendix.

Berkyn Manor, Horton



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Working farm estate with some industrial use.

Proposal: Green waste and / or energy recovery.

Waste activity categories:

Category	Activity
1	Open sites or ancillary open areas (possibly biological treatment)
2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
3	Enclosed industrial premises (small scale)
4	Enclosed industrial premises (large scale)

Area: 2.7 ha

Development Considerations:

Ecology

- Protection of South West London Waterbodies Special Protection Area (SPA)/Ramsar.

- The impacts on the offsite foraging and breeding of the qualifying bird species of nearby SPA/Ramsar.
- Impacts to Wraysbury reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI.
- Impacts to Queen Mother Reservoir Local Wildlife Site (LWS), Arthur Jacob Nature Reserve LWS, Colne Brook LWS Horton and Kingsmead Lakes LWS.
- Consideration of hydrological impacts.
- Retention and buffering of hedgerows within site.
- Consideration of the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area in restoration or operational landscaping.

Landscape & Townscape

- Existing vegetation should be conserved and protected, and additional buffer planting established to all boundaries.
- Enhanced screening is required.

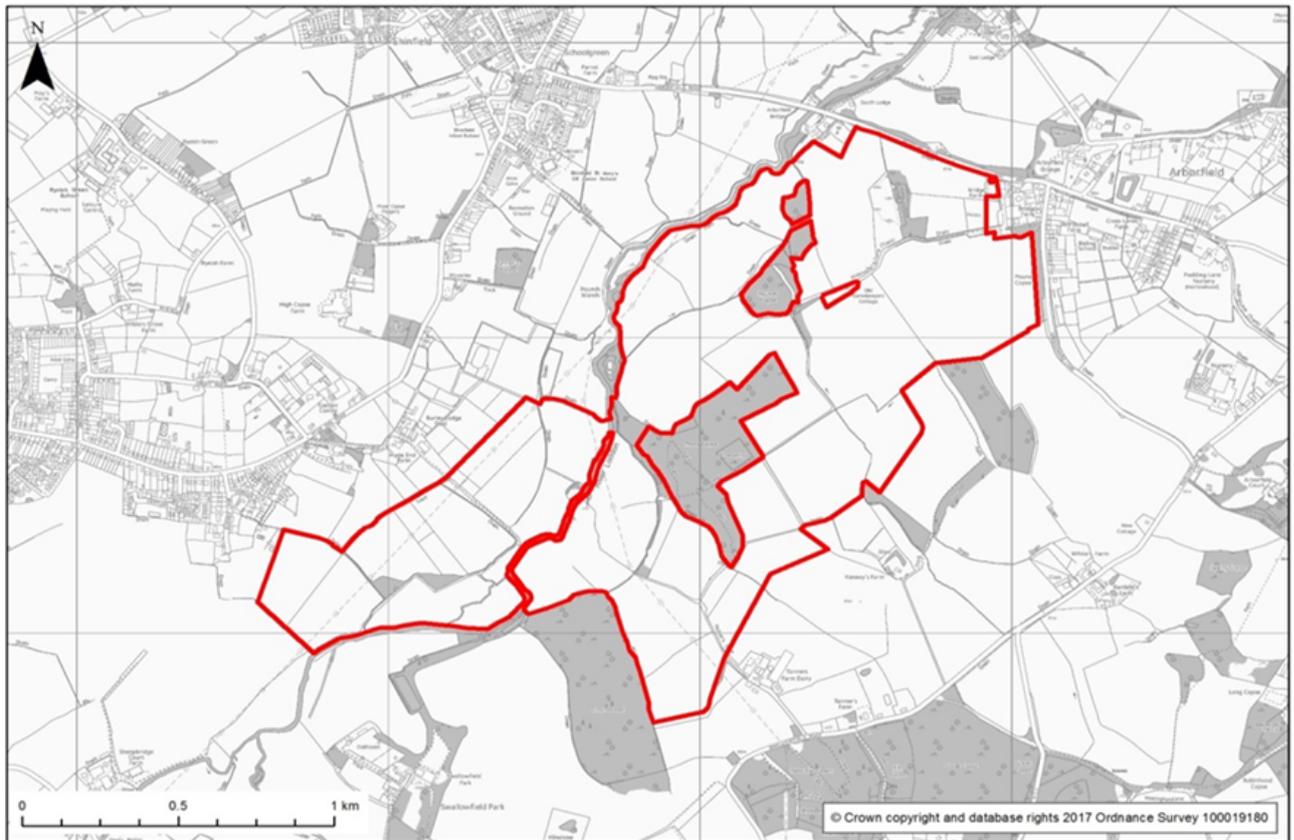
Historic Environment:

- The setting of Grade II Listed Building to the south needs to be considered.

Transport:

- A new access onto Poyle Road is required for mineral use and further investigation is required for a suitable access onto Stanwell Road for waste uses.
- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required.

Bridge Farm, Arborfield



Local Planning Authority: Wokingham Borough Council

Existing Use: Mixed agricultural and commercial shoots for game.

Proposal: Extraction and processing of 3.6 million tonnes of sand and gravel.

Area: 190 ha

Restoration: To agriculture, lowland meadow and wetlands with enhanced public access.

Development Considerations:

Ecology

- Protection of Stanford End Mill and River Loddon Site of Special Scientific Interest.
- Protection and buffer of the River Loddon Local Wildlife Site and floodplain grassland/woodland within the site.
- Protection and buffer of ancient woodland habitats within nearby Local Wildlife Sites.
- Protection of areas of higher botanical interest.

- Restoration will need to include nutrient poor floodplain pasture, woodland belts and enhanced networks to the wider landscape, and objectives of the Loddon Valley South Biodiversity Opportunity Area.
- Consideration of hydrological issues related to the river floodplain.

Landscape & Townscape

- Establish adequate buffers to protect long term health of woodland.
- Advance woodland and hedgerow planting will be required along adjoining roads and footpaths.
- Conserve the quality of the footpath environment, including maintaining vegetation and providing some views out.
- Footpath 20 would require diversion.
- Proposals should restore the existing landscape structure of fields and wooded boundaries.

Historic Environment

- The site has a high archaeological potential.

Transport:

- Consideration should be given to the Arborfield Relief Road⁷⁸.
- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required.

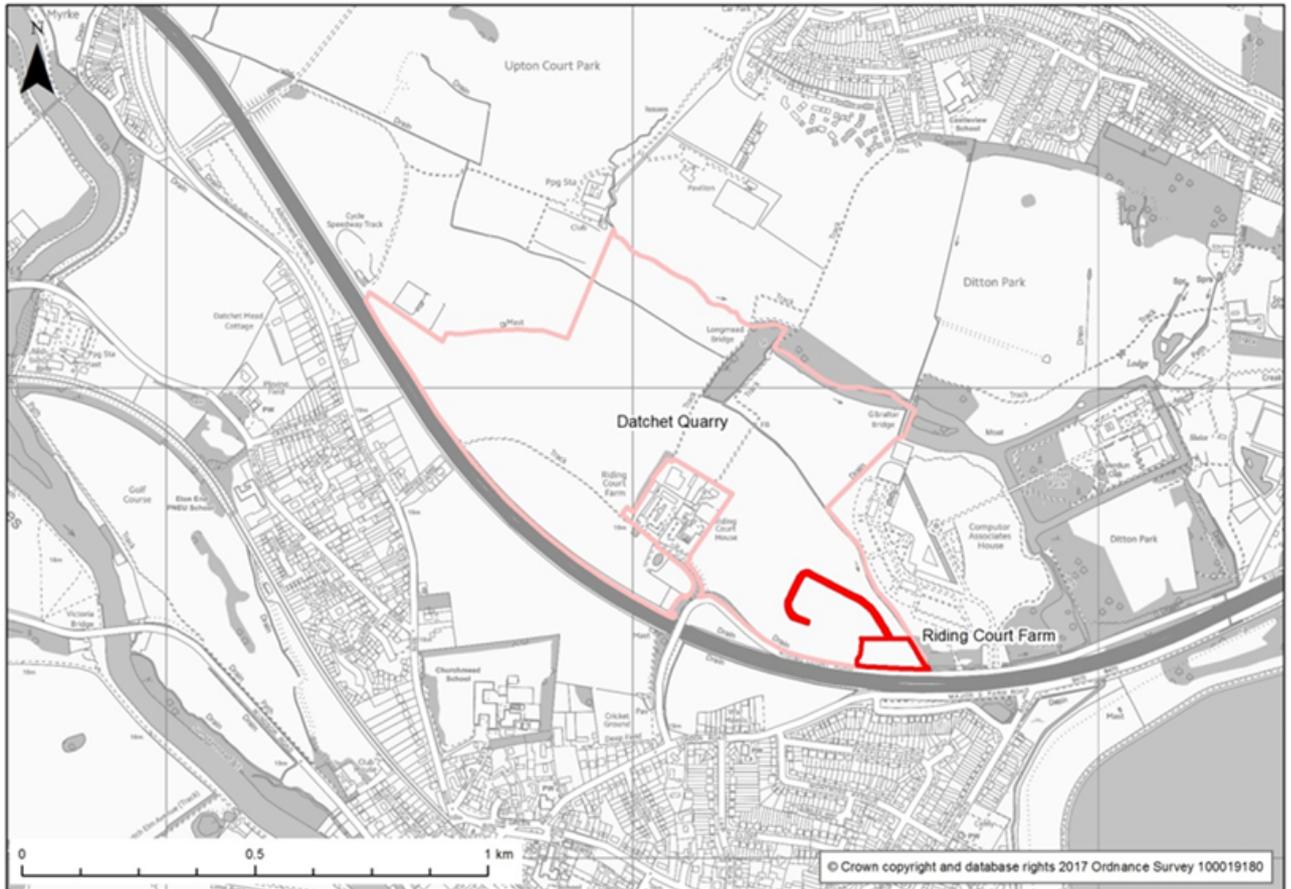
Water Environment and Flood Risk

- Site partly within Flood Zone 3 and Groundwater Source Protection Zone (2) – a Flood Risk Assessment and Hydrological Assessment will be required.

⁷⁸ Planning Application 172209 -

<http://planning.wokingham.gov.uk/FastWebPL/detail.asp?AltRef=172209&ApplicationNumber=172209&AddressPrefix=&Postcode=&KeywordSearch=&Submit=Search>

Datchet Quarry, Datchet



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Existing sand and gravel quarry.

Proposal: Aggregate recycling for the lifetime of the quarry.

Waste activity categories:

Category	Activity
1	Open sites or ancillary open areas (possibly biological treatment)

Area: 3 ha

Development Considerations:

Ecology

- The Impacts on the offsite foraging and breeding areas of the qualifying bird species of nearby Special Protection Areas/Ramsars*.
- Impacts to Queen Mother Reservoir Local Wildlife Sites.
- Protection, enhancement and buffer of stream corridor and woodland to the east of the site.

Landscape & Townscape

- Establish effective screen planting of native species trees and hedgerows, in particular adjacent the registered historic Ditton Park.

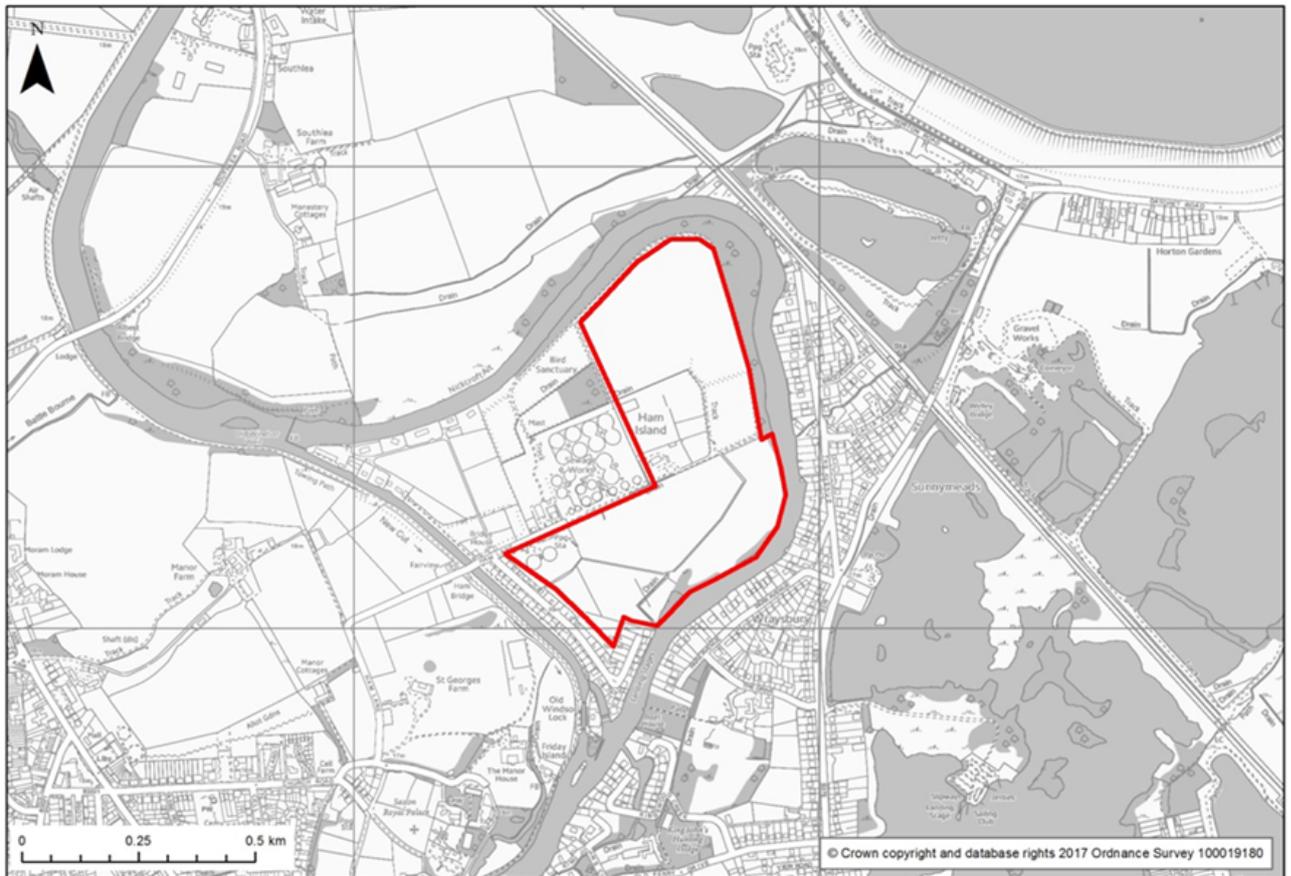
Transport:

- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required (or maintain existing).

Water Environment and Flood Risk

- Site largely within Flood Zone 3 and in Groundwater Source Protection Zone (3) - a flood Risk Assessment and Hydrological Assessment will be required.

Ham Island, Old Windsor



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Fields adjacent to a waste water treatment works.

Proposal: Extraction of 1.5 million tonnes of sand and gravel transported by barges and new on-site wharf.

Area: 55 ha

Restoration: Enhancement of natural habitats and local landscape including public access and amenity areas.

Development Considerations:

Ecology

- Protection of South West London Waterbodies Special Area of Conservation (SAC)/Special Protection Area/Ramsar, Windsor Forest and Great Park SAC and Site of Special Scientific Interest (SSSI)*.
- Protection of Wraysbury no.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pits SSSI, Wraysbury Reservoir SSSI.

- Impacts to the offsite foraging and breeding of areas of the qualifying bird species of the nearby SPA/Ramsar/SSSI.
- Impacts to Datchet Common and Gravel Pits Local Wildlife site.
- Hydrological issues relating to mineral extraction.
- Impacts from loss and damage to floodplain meadow.
- Impacts to eel populations

Landscape & Townscape

- Impacts on the River Thames and its setting and recreational routes should be minimised.
- Effective screen planting should be established for adjoining residents.
- Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area.

Historic Environment

- The archaeological potential is high.
- Reduced area of workings necessary to protect the Scheduled Ancient Monument / Historic environment.
- Advice and opinion of Historic England should be sought.

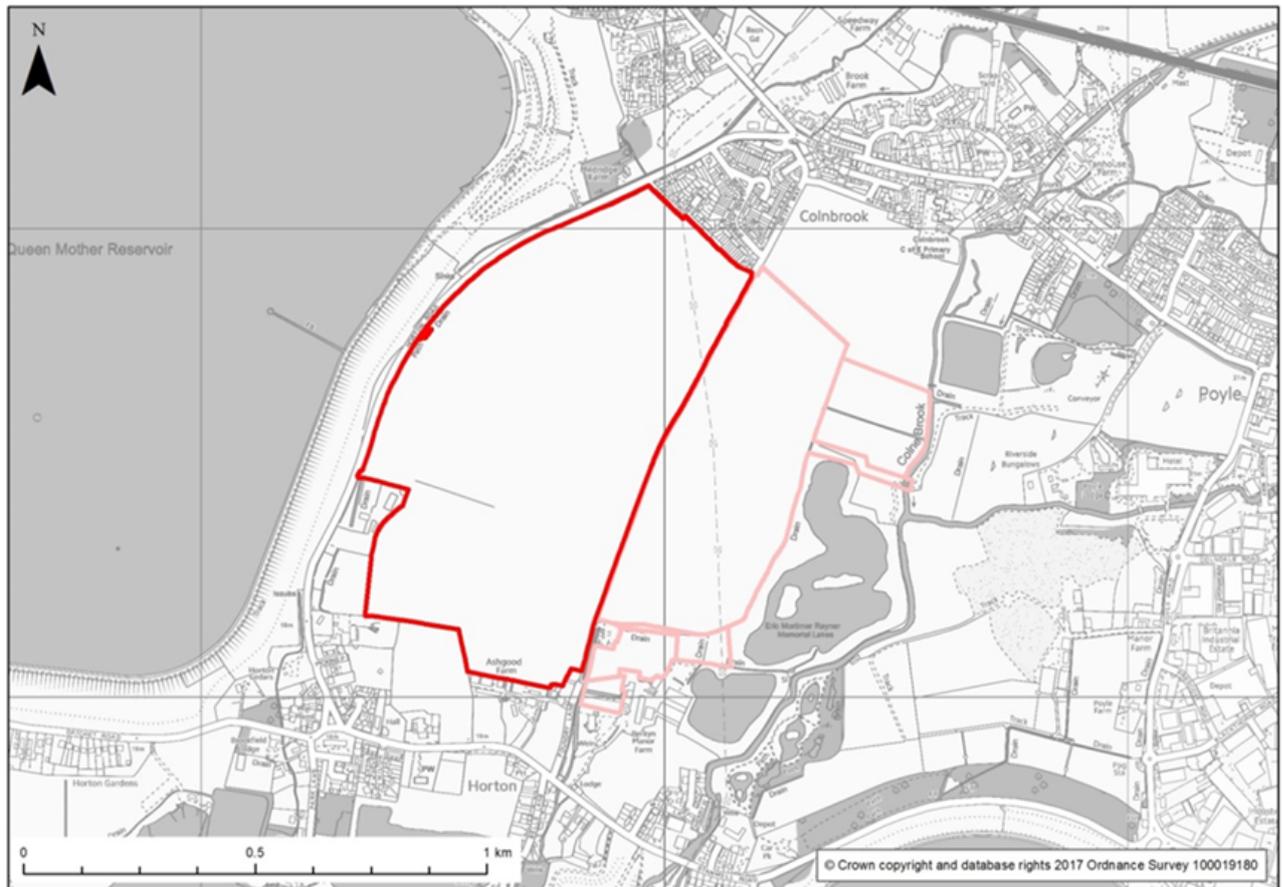
Transport:

- Construction of a wharf is critical to the delivery of the site as road access is not suitable.
- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required.

Water Environment and Flood Risk

- Site wholly within Flood Zones 2 and 3 and Groundwater Source Protection Zone (3) – a Flood Risk Assessment and Hydrological Assessment will be required.

Horton Brook Quarry, Horton



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Existing operational sand and gravel quarry.

Proposal: Inert recycling.

Waste activity categories:

Category	Activity
1	Open sites or ancillary open areas (possibly biological treatment)
2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
3	Enclosed industrial premises (small scale)
4	Enclosed industrial premises (large scale)

Area: 55 ha

Development Considerations:

Ecology

- Protection of South West London Waterbodies Special Protection Area (SPA)/Ramsar*.

- The impact on the offsite foraging and breeding areas of the qualifying bird species of the nearby SPA/Ramsar*.
- Impacts to Wraysbury reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI.
- Impacts to Queen Mother Reservoir Local Wildlife Site (LWS), Arthur Jacobs Nature Reserve LWS, Colne Brook LWS, and Horton and Kingsmead LWS
- Retention and protection of a part of the site for nature conservation purposes during operation.
- Considerations of the objectives of the Colne Valley gravel Pits and Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals.

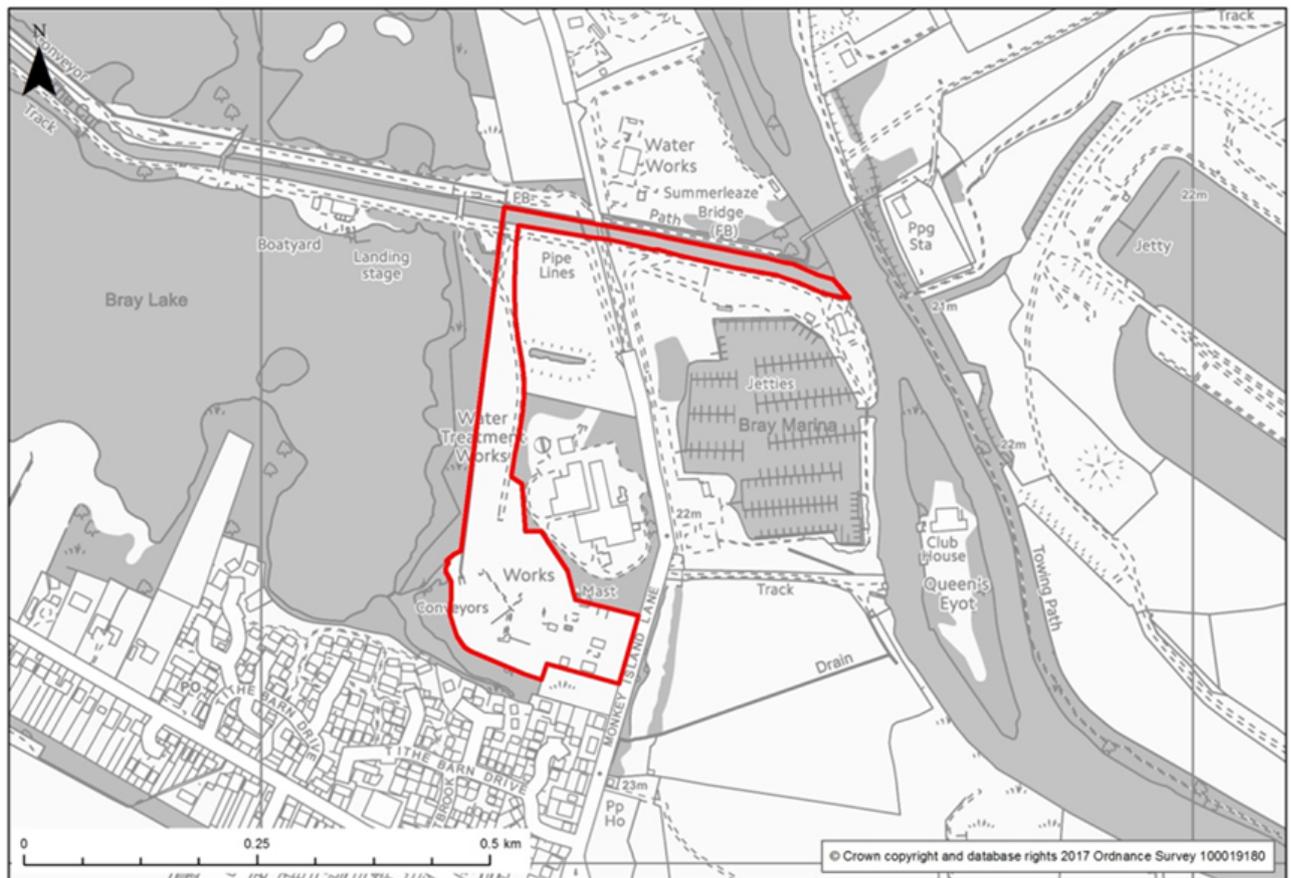
Landscape & Townscape

- Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts.
- Integrate new structures with effective screen planting, including along boundaries.
- Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs BOA.

Transport:

- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will also be required (or maintain existing).

Monkey Island Lane Wharf, Bray



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: No current use.

Proposal: Transport sand and gravel along the river Thames, through a navigable waterway known as the 'Cut' to a proposed new barge unloading facility. Sand and gravel then sent to Monkey Island Lane processing plant via conveyor.

Development Considerations:

Ecology

- Protection of Bray Pennyroyal field Site of Special Scientific Interest (SSSI) and Bray Meadows SSSI.
- Impacts to Greenway corridor Local Wildlife Site (LWS) within site, ensuring functionality as wildlife corridor is not compromised, and losses compensated.
- Impacts to Bray Pit Reserve LWS.
- Retention of semi-natural habitats within site to accommodate protected species.
- Consideration of pollution impacts to riverine habitats.

Landscape & Townscape

- Strengthen existing landscape structure with new tree and hedgerow planting to integrate new structures.
- Maintain and enhance the setting of the public access route to Bray Lake Recreation Area.

Historic Environment

- Archaeological issues would remain a material consideration to be dealt with at a planning application.

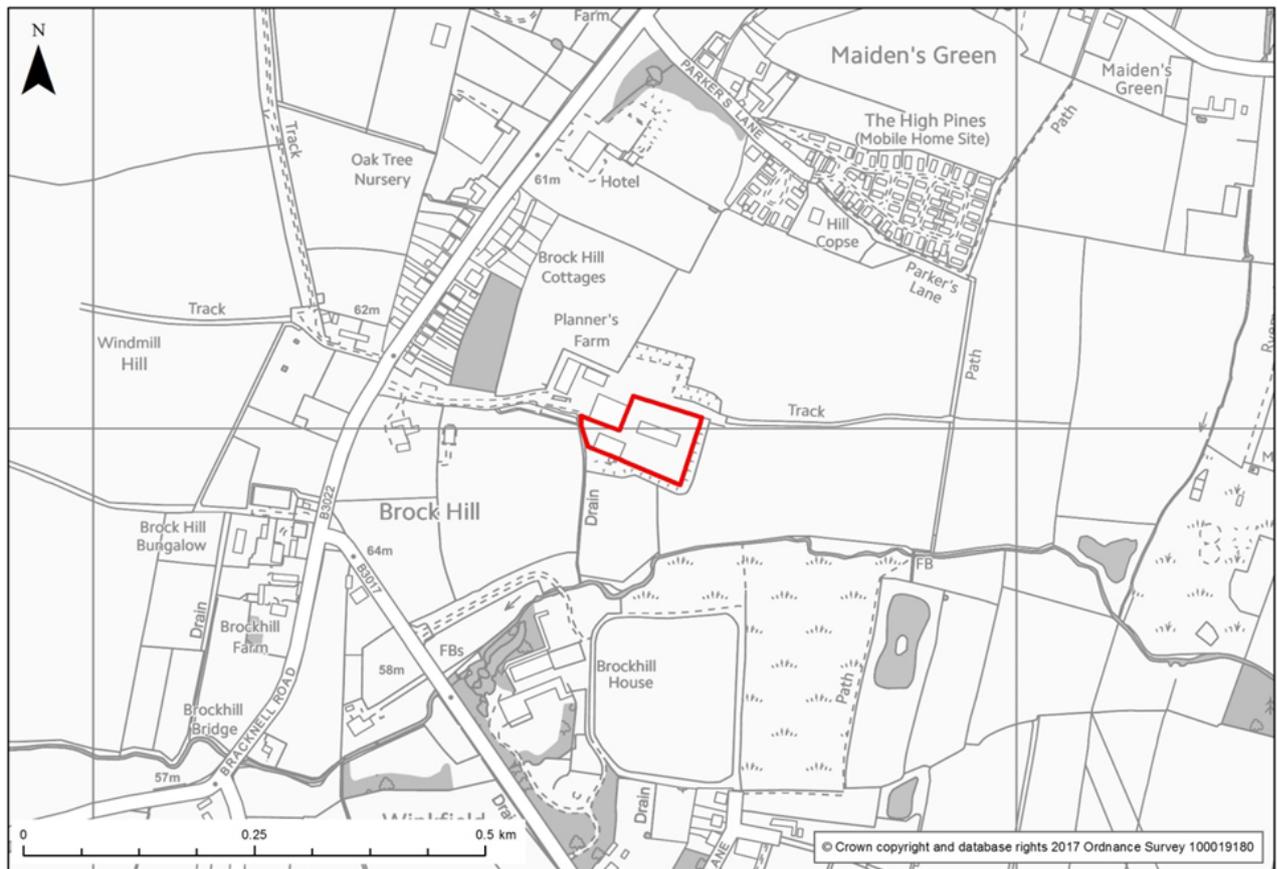
Transport:

- A Transport Assessment or Statement is required.
- A HGV and Barge Routeing Agreement will be required.

Water Environment and Flood Risk

- Site largely within Flood Zone 2/3 and Groundwater Source Protection Zone (1) – a Flood Risk Assessment and Hydrological Assessment will be required.

Planners Farm, Brock Hill



Local Planning Authority: Bracknell Forest Council

Existing Use: Existing open windrow composting operation.

Proposal: Similar forms of waste management such as biomass production.

Waste activity categories:

Category	Activity
1	Open sites or ancillary open areas (possibly biological treatment)
2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
3	Enclosed industrial premises (small scale)

Area: 1 ha

Development Considerations:

Ecology

- Protection of Chawridge Bourne Site of Special Scientific Interest.
- Impacts to Maidens Green Local Wildlife Site (LWS), and Stirrups County House Hotel LWS.
- Consideration of hydrological issues.

Landscape & Townscape

- Reinforce boundaries with native species tree and hedgerow planting.

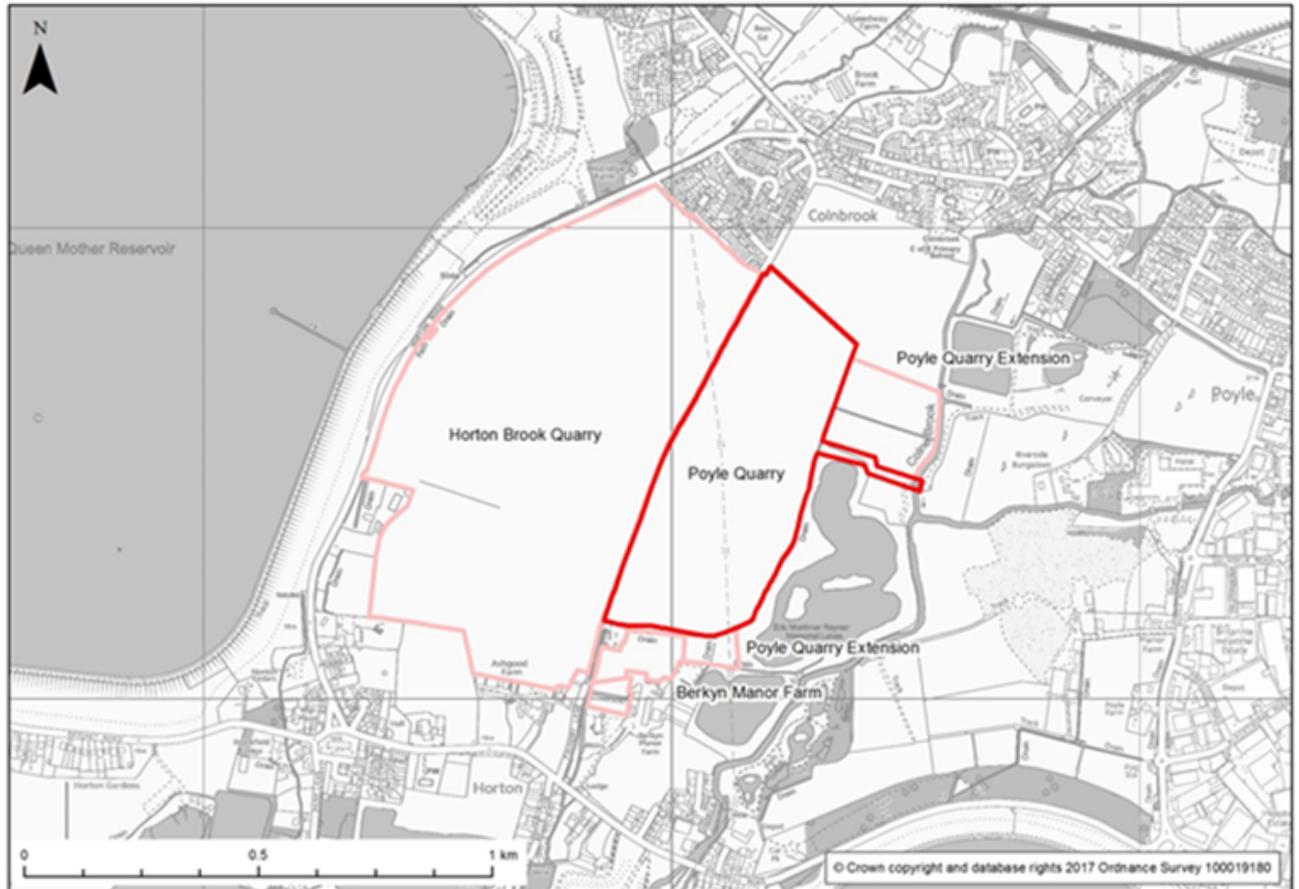
Water Environment and Flood Risk

- Part of site within Groundwater Source Protection Zone (3) – a Hydrological assessment will be required.

Transport:

- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required.

Poyle Quarry, Horton



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Arable fields

Proposal: Phased extraction of approximately 800,000 tonnes of sand and gravel with no processing on site.

Area: 21.8 ha

Restoration: Agriculture and nature conservation interests at original ground levels.

Development Considerations:

Ecology

- Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar located 0.55km to the south east*.
- Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*.

- Impacts on Arthur Jacob Nature Reserve Local Wildlife Site (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS.
- Consideration of indirect impacts such as air and noise pollution.

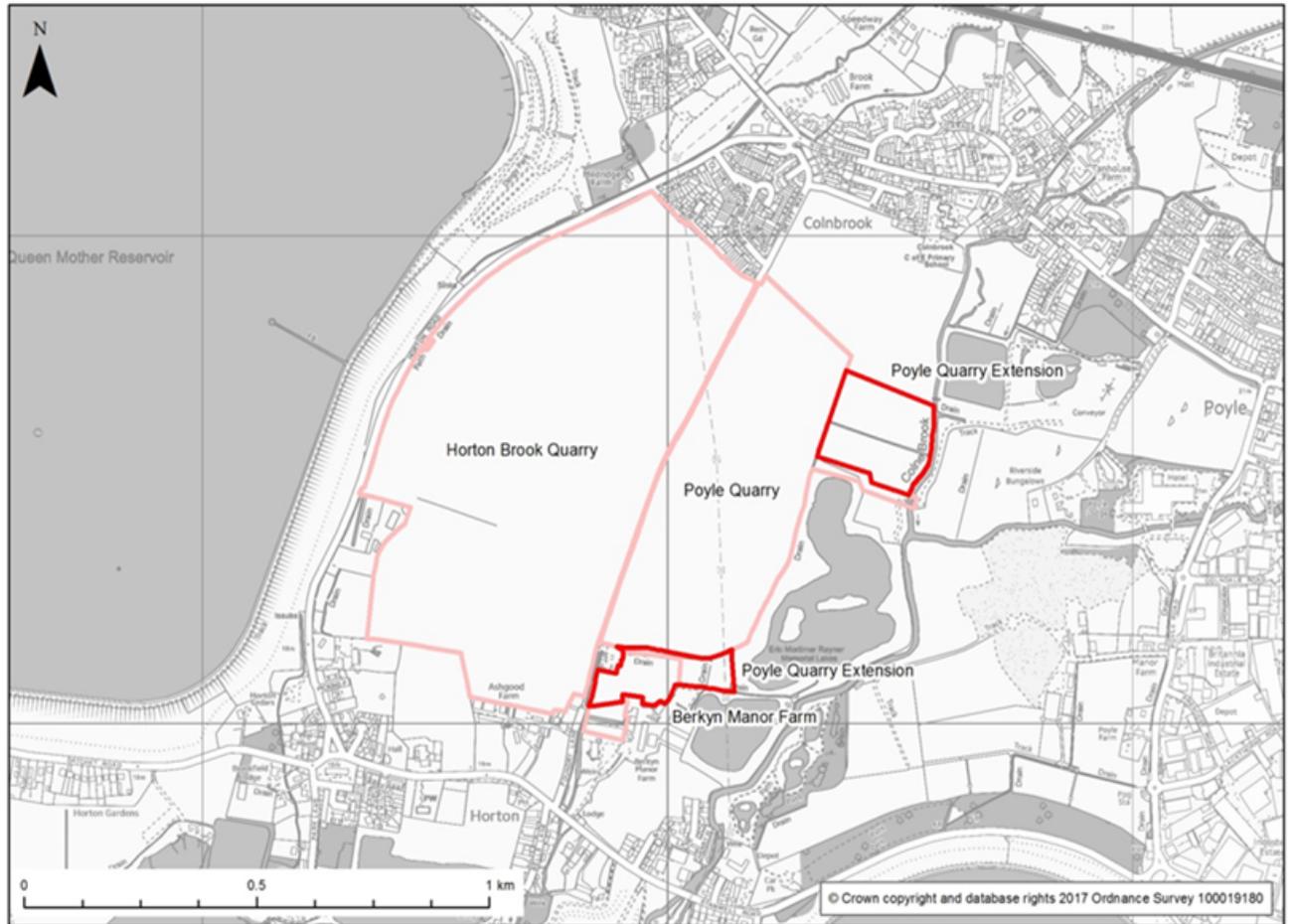
Landscape & Townscape

- Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts.
- Consideration needs to be given to the realignment of the Colne Valley Way, and the quality of its setting.
- Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area.

Transport:

- Provision of a new access will be required, most likely onto Poyle Road.
- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement is required.

Poyle Quarry (Extensions), Horton



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Arable fields

Proposal: Extension to Poyle Quarry extracting 250,000 tonnes of sand and gravel with no processing on site.

Area: 4 ha and 2 ha

Restoration: Agriculture at original ground levels.

Development Considerations:

Ecology

- Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*.
- Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site.

- Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS.
- Consideration of indirect impacts such as air and noise pollution.

Landscape & Townscape

- Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts.
- Consideration needs to be given to the realignment of the Colne Valley Way, and the quality of its setting.
- Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area.

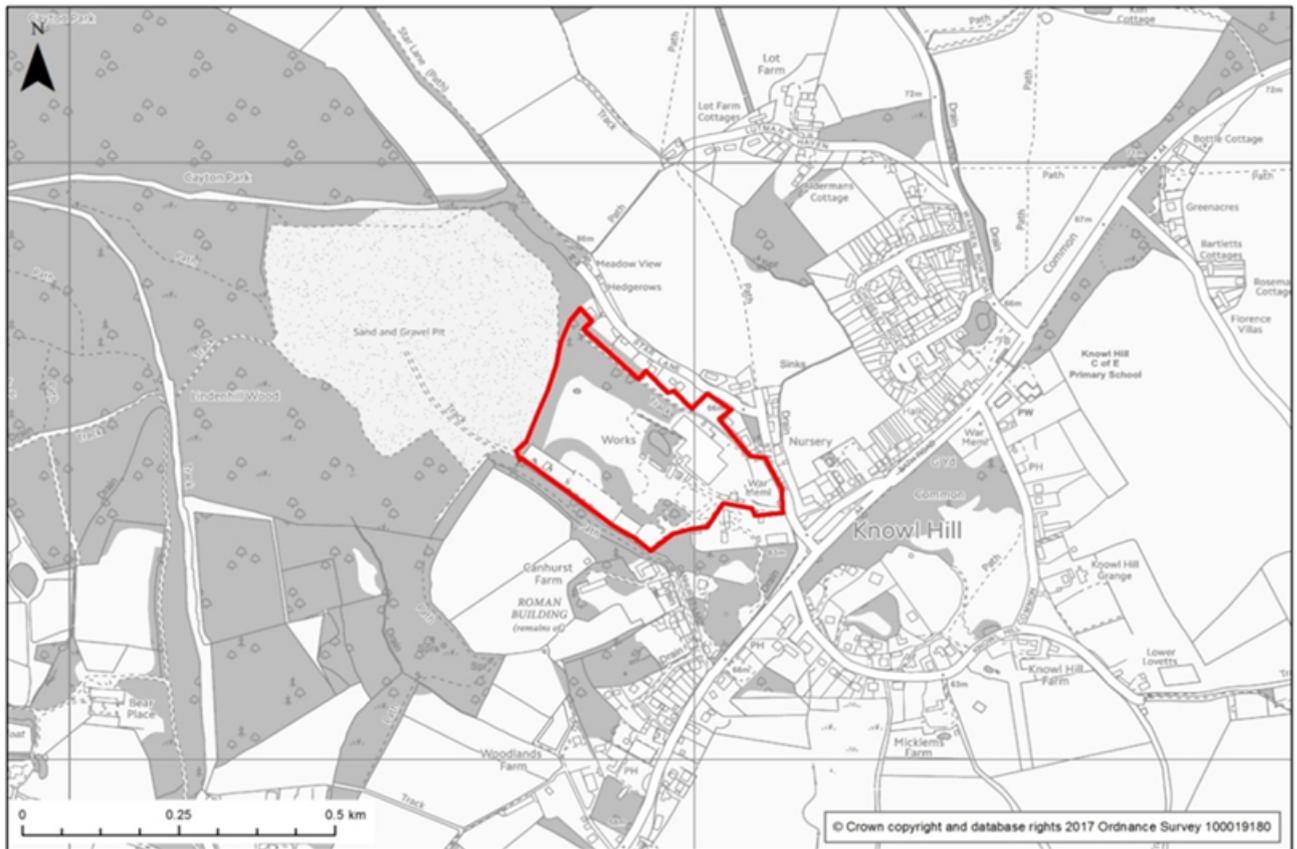
Transport:

- Provision of a new access will be required, most likely onto Poyle Road.
- A Transport Assessment or Statement is required.
- A HGV Routing Agreement will be required.

Water Environment and Flood Risk:

- Both sites partly within Flood Zones 2 and/or 3 – a Flood Risk Assessment will be required.

Star Works, Knowl Hill



Local Planning Authority: Wokingham Borough Council

Existing Use: Existing waste collection and treatment facility with adjacent landfill (due to be completed 2020/21)

Proposal: Continuation of waste collection and treatment with potential recovery operations and increase in capacity.

Waste activity categories:

Category	Activity
1	Open sites or ancillary open areas (possibly biological treatment)
2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
3	Enclosed industrial premises (small scale)
4	Enclosed industrial premises (large scale)
5	Enclosed building with stack (small scale)
6	Enclosed building with stack (large scale)

Area: 5.22 ha

Development Considerations:

Ecology

- Impacts and adequate buffering of Bear Grove, Lindenhill Wood Local Wildlife Site (LWS) and Knowl Hill Brick Pits LWS within the site.
- Impacts to Cayton Park Woodland LWS, Bottom Boles Wood LWS, Square Wood LWS, Common South-east of Warren Row LWS.
- Protection and buffering of other woodland and boundaries within and adjacent to the site.
- Impacts to great crested newts.
- Impacts to purple-stemmed cats-tail.

Landscape & Townscape

- Reinforcement of site boundaries is required with additional native species woodland edge planting including appropriate edge treatment.

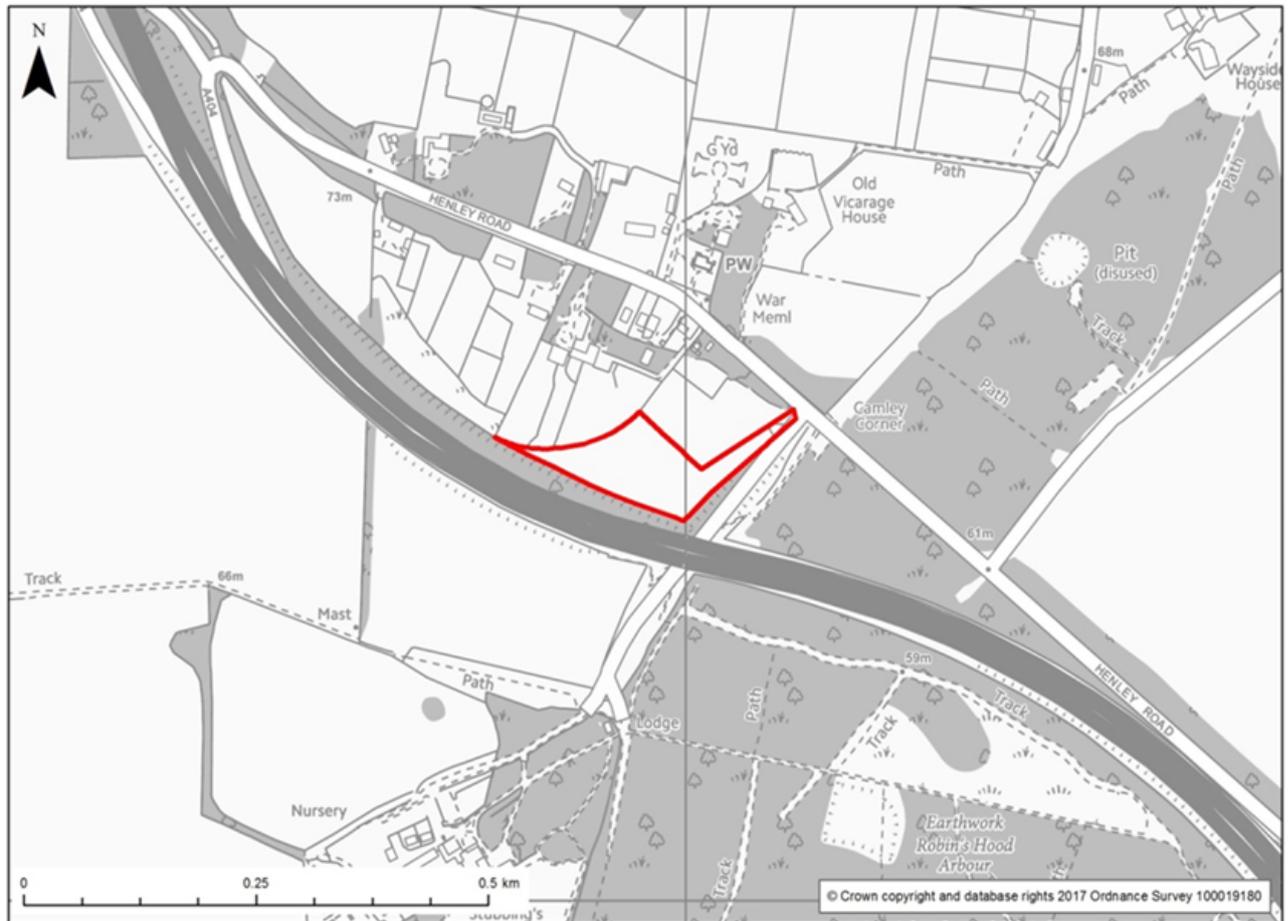
Transport:

- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required (or maintain existing).

Water Environment and Flood Risk

- Within Groundwater Source Protection Zone (3) - a Hydrological Assessment will be required.

The Compound, Pinkneys Green, Maidenhead



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Hardstanding with permission for agricultural barn.

Proposal: Green waste processing (excluding open windrow composting).

Waste activity categories:

Category	Activity
2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
3	Enclosed industrial premises (small scale)

Area: 2 ha

Development Considerations:

Ecology

- Impacts and adequate buffering of Maidenhead Thicket Local Wildlife site (LWS).

- Impacts to Carpenters Wood, Dungrove Hill LWS, and Temple Golf Course LWS.
- Retention and buffer of mature boundaries.
- Consideration of surface water discharge to ground pollution.

Landscape & Townscape

- Enhanced screen planting is required for adjacent residential properties.

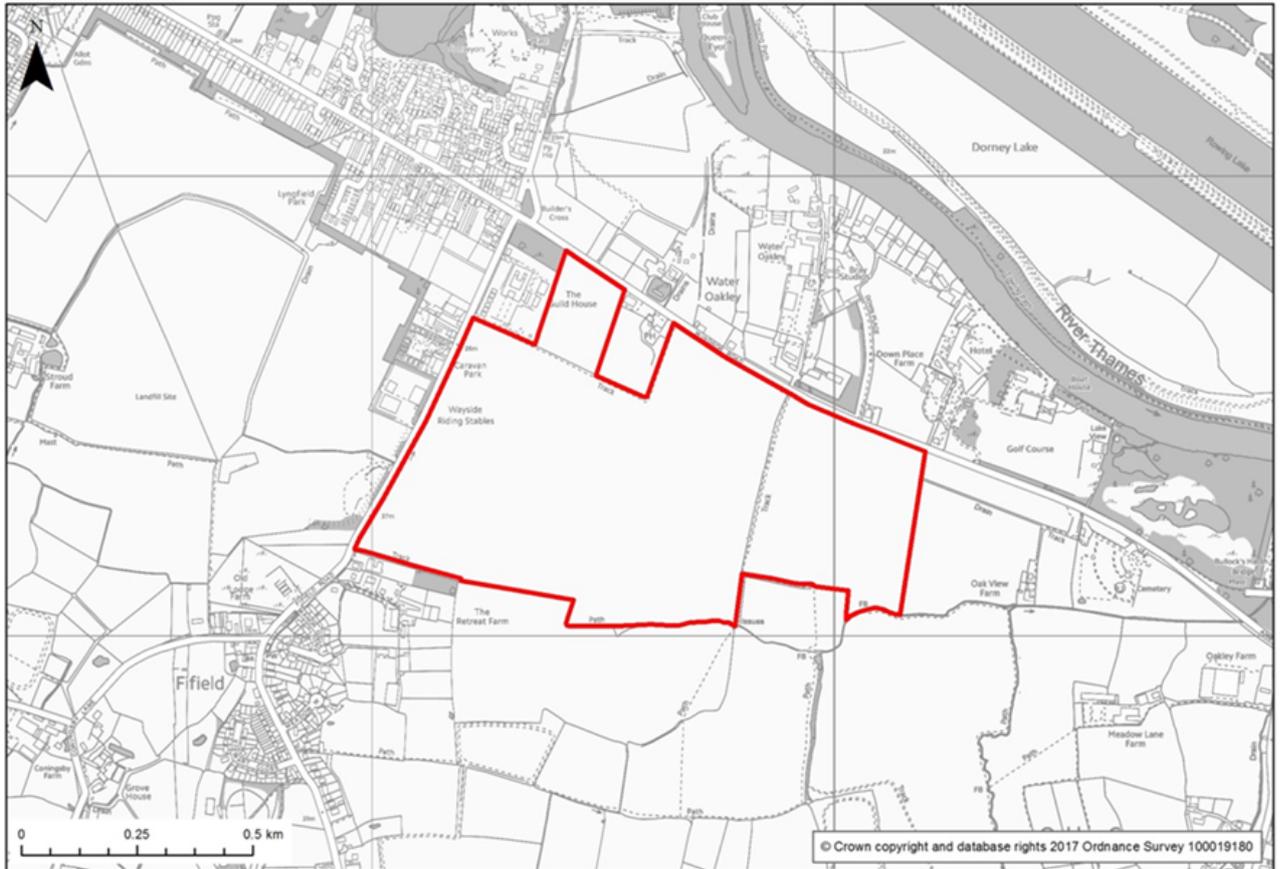
Transport:

- A Transport Assessment or Statement will be required – this would need to demonstrate sufficient splays from the existing access.
- A HGV Routeing Agreement will be required.

Water Environment and Flood Risk

- Site in Groundwater Source Protection Zone (3) – a Hydrological Assessment will be required.

Water Oakley Farm, Holyport



Local Planning Authority: The Royal Borough of Windsor & Maidenhead

Existing Use: Agricultural fields

Proposal: Extraction of 1.9 million tonnes of high quality sand and gravel. Processing will be undertaken at Monkey Island Lane, located north of the site.

Area: 57.4 ha

Restoration: Agriculture with nature conservation interests/daily recreation.

Development Considerations:

Ecology

- Protection of Windsor Forest and Great Park Special Area of Conservation/Site of Special Scientific Interest (SSSI) with regard to air quality and displaced recreation, Bray Pennyroyal SSSI with regard to hydrological and air quality impact pathways*.
- Impact to Greenway Corridor Local Wildlife Site, Braywick Park Local Nature Reserve (LNR) and Southerland Grange LNR.
- Landscape-scale impacts on species such as bats, passerines and raptors.

- Protection of the water quality of the river corridor.
- Impacts to the River floodplain habitat.

Landscape & Townscape

- Existing screen planting around the site should be retained and protected.
- An adequate easement width should be established to protect the environment of existing and diverted footpaths.
- Footpath Bray/53/1 will need to be diverted temporarily.
- Restoration should consider requirements of Bray to Eton Pits and Meadows Biodiversity Opportunity Area.

Historic Environment

- The archaeological potential is high.

Transport:

- Access onto the A308 is required.
- A Transport Assessment or Statement is required.
- A HGV Routeing Agreement will be required taking into account the Air Quality Management Area at Bray Wick.

Water Environment and Flood Risk

- Part of site within Groundwater Source Protection Zone (3) – a Hydrological Assessment will be required.

Cumulative impacts

- Consideration of the wider Development Plan proposals and implications on traffic and amenity impacts on local residents.

Appendix B – Waste Facility Categories

A range of different waste management facilities have been classified based on the types of activities involved. These categories should be used to inform the suitability of the proposed allocations for waste activities.

Category 1: Activities requiring open sites or ancillary open areas (possibly involving biological treatment)

<p>Description / overview</p>	<ul style="list-style-type: none"> • Activities requiring space for storage of waste and machinery (e.g. recycling crusher and screener; vehicle dismantlers). Open sites can accommodate processing equipment (e.g. storage containers/skips, loaders for shipment) • Activities similar to some agricultural practices require large open spaces (e.g. composting plants using open air windrows (elongated piles)). Large areas of land are converted to hard-standing areas for the running of machinery, and soil and ground water protection measures • Small proportion of the site may include building (e.g. for staff facilities)
<p>Waste facilities</p>	<ul style="list-style-type: none"> • Open windrow composting (composting sites typically require sites 2-3 hectares) • Aggregate recycling / construction and demolition waste processing (typically require 2 hectares or greater) • Processing incinerator bottom ash (IBA) • End of Life Vehicle (ELV) processing / scrap metal yard • Soil hospital (remediation of contaminated soils) • Household Waste Recycling Centre (HWRC) or Civic Amenity Site (typically approximately 0.8 hectare site required)
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> • Unsorted or segregated household waste • Construction waste (soils, rubble etc) • Incinerator bottom ash • Scrap vehicles • Biodegradable municipal solid wastes and industrial wastes converted to composted products (garden type waste collected separately or co-collected with kitchen waste that is suitable for open windrow composting)
<p>Appropriate locations for these activities (including site requirements)</p>	<ul style="list-style-type: none"> • Typically located in rural or urban fringe sites (where access is good). • Close proximity to development areas (markets) is preferable (it is often not viable to transport materials such as recycled aggregate long distances).

	<ul style="list-style-type: none"> • Larger scale centralised composting facilities can be located at selected composting sites but smaller facilities can be located at landfill sites, sewage treatment works, industrial sites and transfer stations. • Small scale composting operations are also located on farms, due to their ability to exploit existing infrastructure, equipment, and labour associated with normal farm activities⁷⁹. • Aggregate recycling sites and ELV sites can be located on industrial estates alongside heavier industrial uses (affordable sites of an adequate size can be very difficult to obtain for these uses however). • Aggregate recycling activities (usually temporary operations) can also be located at mineral workings and landfill sites and at demolition and construction sites where the spoil is to be used in the project itself. • Rail sidings can be used for activities whereby materials are loaded for shipment to market (transshipment of waste). • Household Waste Recycling Centres and Civic Amenity sites require good access from the primary road network and sufficient vehicle queuing space.
Locations where activities would be unsuitable	<ul style="list-style-type: none"> • Would not normally be compatible with a business park environment or an urban setting, or close to villages. • An appropriate distance of 'buffer' would be required between operations and sensitive receptors. • Should be located at appropriate distances from sensitive habitats (where there are potential dust and bioaerosol impacts).

⁷⁹ Most on-farm facilities possess waste management exemptions, and all community-run sites are exempt and so are restricted in size

Category 2: Activities requiring a mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)

<p>Description / overview</p>	<ul style="list-style-type: none"> • Activities which involve temporary storage of waste usually consist of buildings where vehicles deliver waste either onto the floor, into bays, or into compaction units. Inert wastes in particular may be transferred to such sites and stored in the open. • Facilities may require extensive plant and specialist machinery. • For instance, hard standing areas to site recycling bins, skips and possibly compactors which can be fully / partially enclosed or open. • Unsorted waste may be stored in open bunkers or skips, housed within a building. Facilities may be co-located on sites (e.g. storage alongside a Waste Transfer Station). • Sites usually require a minimum of 0.5 hectares (but size depends on throughput).
<p>Waste facilities</p>	<ul style="list-style-type: none"> • Outdoor Waste Transfer Station (where space required for open storage). • Anaerobic digestion (AD) plant (small scale) (agricultural / rural locations) (unsorted waste, segregated waste and residual waste may be stored in open bunkers, possibly outside). • Enclosed composting systems⁸⁰. • MBT (Mechanical Biological Treatment) plant (including biological treatment e.g. AD)⁸¹. • Sites for aggregating waste wood (sorting and processing). • Biological treatment of liquid waste and leachate (can involve enclosed buildings and tanks in open areas). • Wastewater Treatment Works.
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> • Unsorted or segregated household or commercial waste • Green waste • Specialist wastes (e.g. liquid waste and leachate)
<p>Appropriate locations for these</p>	<ul style="list-style-type: none"> • Enclosed composting facilities are suited to areas allocated for employment / industrial uses in urban areas, and are compatible with the more

⁸⁰ e.g. In-vessel composting (IVC) allows collected food waste to be composted on a large scale. IVC is not considered as environmentally beneficial as anaerobic digestion. For effective waste handling, a covered waste reception area, as well as hard standing for post composting and a covered storage area are needed.

⁸¹ The term 'mechanical and biological treatment' (MBT) is commonly used to describe a hybrid process which combines mechanical and biological techniques used to sort and separate mixed household waste.

<p>activities (including site requirements)</p>	<p>intensive B2 activities under the Use Classes Order.</p> <ul style="list-style-type: none"> • Small scale AD plants (throughput of circa 5000 tonnes per annum) can be located on sites less than 0.5 hectares (Wastewater Treatment Works in particular can provide suitable locations). • Facilities to recycle agricultural waste can be located on farms (digestate from AD plants maybe used by neighbouring farms). • Options for locating wastewater treatment plant are very limited and are typically linked to existing infrastructure.
<p>Locations where activities would be unsuitable</p>	<ul style="list-style-type: none"> • An appropriate distance of 'buffer' would be required between operations producing bioaerosols / odours, and sensitive receptors. • Should be located at appropriate distances from sensitive habitats (where there are potential dust and bioaerosol impacts). • Facilities involving open-air activities with potential to generate noise would not normally be compatible with a business park environment, an urban setting, or close to villages.

Category 3: Activities requiring enclosed industrial premises (small scale)

<p>Description / overview</p>	<ul style="list-style-type: none"> • Waste developments are increasingly enclosed within new or existing structures, often sited on brownfield or industrial land; allowing for a large proportion of the perceived issues / problems to be mitigated for, i.e. dust and noise. • 'Small scale' enclosed premises are typically <1-2 hectares (throughput of approx. 50,000 tonnes per annum). • Usually located on industrial estates. • Enclosing activities helps to mitigate against many noise / odour issues.
<p>Waste facilities</p>	<ul style="list-style-type: none"> • Plant for Refused Derived Fuel production (small scale e.g. Mechanical Heat Treatment / Autoclaving)⁸². Autoclaving is a pressurised steam treatment process that can produce fuel pellets or pulp (by 'cooking' waste). • Dis-assembly and re-manufacturing plant (Waste Electronic & Electrical Equipment recycling). • Enclosed waste transfer station (designed to process dry, separated recyclables). • Small-scale recyclables processing facility.
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> • All types of non-hazardous waste typically handled (e.g. dry mixed recyclables) • Inert waste may also be handled (e.g. sorting of construction waste, glass etc) • Clean waste wood can be handled for recycling • Waste Electronic & Electrical Equipment
<p>Appropriate locations for these activities (including site requirements)</p>	<ul style="list-style-type: none"> • As activities can be similar to other industrial activity, these facilities can be located on land previously used for general (B2) industrial activities or B1 uses (light industry appropriate in a residential area). • The requirement for good transport infrastructure is essential and therefore, where possible, should be located close to the primary road network or have potential access to rail. • Placement of sites near to the source of waste is increasingly important, by limiting movement of waste from source the impact of sites decreases.

⁸² Refuse-derived fuel, (RDF), is made by refining municipal solid waste in a series of mechanical sorting and shredding stages to separate the combustible portion of the waste. Either a loose fuel, known as fluff, floc or coarse RDF (c-RDF), or a densified pellet or briquette (d-RDF) is produced.

Locations where activities would be unsuitable	<ul style="list-style-type: none">• Sites with existing access issues should be avoided where possible.• Areas should be avoided where facilities seeking expansion of existing hardstanding would encroach into flood zones.
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Category 4: Activities requiring enclosed industrial premises (large scale)

<p>Description / overview</p>	<ul style="list-style-type: none"> • Large buildings required to process mixed waste primarily via mechanical and / or biological means. • Various physical separation and waste reduction techniques can be used either as stand alone operations or in combination. Such activities are typically housed in an enclosed 'warehouse' type building. • 'Large scale' enclosed premises typically require site of 2-4 hectares (throughput can be up in excess of 100,000 tonnes per annum).
<p>Waste facilities</p>	<ul style="list-style-type: none"> • Materials Recovery Facility (MRF) (for dry recyclables). • Enclosed Anaerobic Digestion (AD) plant (large scale). • Enclosed MBT (Mechanical Biological Treatment) (large scale integrated plant)⁸³.
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> • Unsorted 'black bag' wastes (AD and MBT) • Residual household waste following doorstep separation of dry recyclables / green waste • Residual waste following separation of recyclables / organics at another facility.
<p>Appropriate locations for these activities (including site requirements)</p>	<ul style="list-style-type: none"> • Large scale processing operations can take place in a range of buildings and at different locations. Preference should be given to industrial or degraded sites or sites on or close to existing waste management facilities. • B1 / B2 and B8 use class designations may potentially be acceptable. • Sites need to be suitable for use by HGVs. • Consideration should be given to the potential for co-location with rail or barge transfer operations.
<p>Locations where activities would be unsuitable</p>	<ul style="list-style-type: none"> • Mixed household waste has the potential to cause additional nuisance from litter, odour and leachate. The planning and siting considerations will therefore be different to dry recyclables processing. • Locating sites close to residential development should be avoided. Some operations which involve mechanical processing and external loading and unloading of material may be inherently noisy which will also affect the choice of site.

⁸³ The term 'mechanical and biological treatment' (MBT) is commonly used to describe a hybrid process which combines mechanical and biological techniques used to sort and separate mixed household waste, and produce a Refused Derived Fuel (RDF).

	<ul style="list-style-type: none">• Sites with existing access issues should be avoided where possible.• Areas should be avoided where facilities seeking expansion of existing hardstanding would encroach into flood zones.
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Category 5: Activities requiring enclosed building with stack (small scale)

<p>Description / overview</p>	<ul style="list-style-type: none"> Plants with a throughput of approx. 50,000 tonnes per annum. Smaller scale thermal treatment facilities are often designed to receive a specific component of the waste stream. Can offer a waste management option which is more likely to be accepted by local residents. Energy is generated. Often combustion chambers are fired up according to the need to respond to fluctuations in the supply of waste. Gasification is a thermal process in which carbon is converted to a syngas leaving a solid residue. Pyrolysis takes place either in the complete absence of oxygen or with limited oxygen. Require site of <1-2 hectares.
<p>Waste facilities</p>	<ul style="list-style-type: none"> Pyrolysis and gasification technologies (advanced thermal treatment). Small scale incinerator. Small thermal plants (Combined Heat & Power (CHP) plant)⁸⁴. Small thermal treatment plants (furnaces or kilns) are also used to treat clinical wastes at hospital sites.
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> Capable of handling a wide range of waste materials. Can be specifically designed to take a pre-processed feedstock or refuse derived fuel (RDF) (see categories 3 and 4 above). Can be used to treat clinical wastes at hospital sites. Unburned residue (bottom ash) is produced after combustible material is burnt. There are three products of pyrolysis: gas, liquid and a solid known as char.
<p>Appropriate locations for these activities (including site requirements)</p>	<ul style="list-style-type: none"> Localities which are as close as possible to the source of waste arisings in order to minimise transport. Sites which offer the potential for CHP and export of energy to businesses which would otherwise

⁸⁴ The revised Waste Framework Directive sets a threshold above which energy efficient municipal waste incinerators can be classified as recovery facilities, and below which they continue to be classified as disposal facilities.

	<p>use fossil fuel sources. May also be considered as part of large scale residential developments.</p> <ul style="list-style-type: none"> • Can be more suited to rural areas and areas of dispersed population centres than large-scale facilities. • Most small thermal plants have been designed to treat specific industrial waste streams as part of combined heat and power (CHP) arrangements. CHP may be connected to existing decentralised energy networks in town and city centres for instance. • Preference should be given to areas allocated for business use or in traditional commercial/industrial urban areas. • Existing waste sites should also be considered. Plants can be located alongside modern industrial buildings or as a part of business parks where CHP potential can be developed. • Pyrolysis and gasification- the scale of individual buildings and process components is likely to be compatible with most small / medium sized industrial activities.
<p>Locations where activities would be unsuitable</p>	<ul style="list-style-type: none"> • Should be located appropriate distances from sensitive habitats and other sensitive receptors (e.g. residential). • Safeguarding zones around aerodromes where building height is restricted should be avoided. • Pyrolysis and gasification facilities should avoid sites closer than 250m of housing etc where possible or demonstrate emission standards can be met where closer.

Category 6: Activities requiring enclosed building with stack (large scale)

Description / overview	<ul style="list-style-type: none"> Plants with a throughput of approx. 200,000 tonnes per annum. Plants typically designed to handle large volumes of mixed waste following the 'mass combustion' approach. Designed to burn waste as efficiently as possible, usually recovering energy. The volume of waste needing disposal following treatment is reduced by approximately 90%, reducing the need for landfill. The whole process is typically contained within a single building. Legislation requires that all new and existing plants operate to extremely high environmental standards. Require site of 2-5 hectares.
Waste facilities	<ul style="list-style-type: none"> Energy Recovery Facility ('mass burn' with energy generation)⁸⁵; Fluidised bed incinerators generally require some form of refuse derived fuel (RDF). Biomass plant (including proportion of waste biomass feedstock)
Examples of waste streams handled	<ul style="list-style-type: none"> Can receive between 90,000 and 600,000 tonnes of waste per year. Capable of handling a wide range of waste materials. Contaminated paper (e.g. with grease from food) can be more suited to energy recovery.
Appropriate locations for these activities (including site requirements)	<ul style="list-style-type: none"> Often located in or near urban areas. Compatible with the more intensive Class B2 activities under the Use Classes Order. Existing waste sites should also be considered. Should be located as close as possible to the source of waste arisings in order to minimise transport. Should be located on sites which offer the potential for combined heat and power (CHP) and export of energy to nearby businesses.
Locations where activities would be unsuitable	<ul style="list-style-type: none"> Not normally be compatible with a hi-tech business park environment or a rural/semi rural setting.

⁸⁵ The revised Waste Framework Directive sets a threshold above which energy efficient municipal waste incinerators can be classified as recovery facilities, and below which they continue to be classified as disposal facilities

	<ul style="list-style-type: none">• Should be located appropriate distances from sensitive habitats and other sensitive receptors (e.g. residential).• Safeguarding zones around aerodromes where building height is restricted should be avoided.
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Category 7: Landfilling

<p>Description / overview</p>	<ul style="list-style-type: none"> • Modern landfill practice requires a significant degree of engineering in order to contain tipped waste, control emissions and minimise potential environmental effects. • The majority of landfills are operated on a phased cell system whereby, as one cell is being filled, another is being prepared, and another is being completed / restored⁸⁶.
<p>Waste facilities</p>	<ul style="list-style-type: none"> • Waste disposal mainly below ground level (infilling a void). Landraise, also generically referred to as landfill, refers to waste disposal mainly above pre-existing ground levels. • The primary by-products where biodegradable materials are disposed of are landfill gas and leachate (requiring ancillary operations including abstraction systems). • Inert waste can be used to restore minerals workings. • Sites may include a separate protective cell for hazardous materials.
<p>Examples of waste streams handled</p>	<ul style="list-style-type: none"> • Most types of non-hazardous waste may be disposed of via landfill although as disposal is increasingly discouraged, the future role of landfill is likely to be limited to the residues of other waste management operations such as incinerator ashes and materials recovery facility (MRF) rejects etc. • Hazardous wastes (although certain hazardous wastes are banned from landfill disposal). • Inert waste (non-biodegradable) is a restoration material and is not classed as landfilling.
<p>Appropriate locations for these activities (including site requirements)</p>	<ul style="list-style-type: none"> • Landfill sites sited where an existing void is available, such as in existing mineral workings. • The location of land-raise sites is less limited and may include derelict land, or extensions to existing landfills. • Landfill sites tend to be located in rural areas. • Range in size from just a few hectares (Ha) to over 100 Ha. The larger sites are more economically viable.
<p>Locations where activities would be unsuitable</p>	<ul style="list-style-type: none"> • Sites close to housing, commercial or recreational areas etc. should generally be avoided.

⁸⁶ Cells are holes which are lined with a waterproof liner and contain systems to manage landfill gas and leachate/ liquids. When complete the cells are covered with clay to seal the waste.

	<ul style="list-style-type: none">• Areas overlying principal aquifers or close to potable waters should also be avoided.• Sensitive habitats should be avoided.• Bird strike' zones around aerodromes should be avoided.
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Appendix C - The Evidence Base

This Draft Plan consultation paper is supported by a number of reports which set out the evidence for the contents provided. These reports include:

- *Minerals: Background Study* – sets out the types, availability and movements of minerals in the Plan area and what issues may affect future demand.
- *Waste: Background Study* – sets out the amounts and types of waste that need to be managed, how it is currently managed and what the future waste management may be.
- *Sustainability Appraisal (incorporating Strategic Environmental Assessment) Interim Report* – sets the initial findings of assessing the policies and sites to ensure the Plan will not have any significant impacts on the Central & Eastern Berkshire environment, communities and economy.
- *Habitats Regulations Assessment: Screening Report* – sets out the assessment of potential impacts of the policies and sites on European designated habitats.
- *Strategic Flood Risk Assessment Statement* – a review of existing Strategic Flood Risk Assessments, any updates to data and a review of proposed sites.
- *Strategic Traffic & Transport Assessment* – an initial assessment of the traffic impacts of the proposed sites.
- *Landscape & Visual Impact Assessment* – an initial assessment of the landscape impacts of the proposed sites.
- *Restoration Study* – a study of restoration issues and requirements within Central & Eastern Berkshire.
- *Minerals & Waste Safeguarding Study* – a study of the safeguarding requirements within Central & Eastern Berkshire.
- *Minerals: Proposal Study* – sets out the potential mineral sites and their suitability.
- *Waste: Proposal Study* – sets out potential waste sites and their suitability.
- *Equalities Impact Assessment* – sets out whether the Plan will have an impact on particular sectors of Central & Eastern Berkshire's communities.
- *Duty to Cooperate Statement* – a report on cross boundary issues and how these have been addressed in cooperation with key stakeholders.

A summary of this document can be made available in large print, in Braille or audio cassette. Copies in other languages may also be obtained. Please contact Hampshire Services by email berks.consult@hants.gov.uk or by calling 01962 845785