





**London Borough of Hounslow
Local Development Framework
Minerals Background Report**





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	Originated by	Checked by	Reviewed by	Approved by
ORIGINAL	NAME Sarah Thompson Marie-Louise Gray	NAME Christine Bostock	NAME Trevor Hobday	NAME Huw Williams
DATE 22.12.2010	SIGNATURE 	SIGNATURE 	SIGNATURE 	SIGNATURE 
Document status: Draft				

	NAME	NAME	NAME	NAME
REVISION	Sarah Thompson Marie-Louise Gray	Christine Bostock	Huw Williams	Ian Johnson
DATE 10.02.2011	SIGNATURE 	SIGNATURE 	SIGNATURE 	SIGNATURE 
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	NAME	NAME	NAME	NAME
REVISION	Sarah Thompson Marie-Louise Gray	Christine Bostock	Huw Williams	Ian Johnson
DATE 11.03.2011	SIGNATURE 	SIGNATURE 	SIGNATURE 	SIGNATURE 
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1.1 Introduction

1.1.1 The purpose of this report is to provide background information and supporting material to assist in the production of revised mineral policies for inclusion in the Borough’s emerging Local Development Framework (LDF). The report covers the following topic areas:

- Planning policy background and other information sources.
- Policy context in relation to adjacent Mineral Planning Authorities.
- Mineral resources in Hounslow and identification of possible future extraction sites.
- Consideration of options for revised mineral policy for inclusion in the new LDF.
- Consideration of base line information to assist the process of sustainability appraisal.
- Environmental protection and the restoration of mineral working sites.
- Transportation of minerals.
- Impact on minerals policies of Heathrow airport expansion proposals

1.1.2 The opening statement of Mineral Planning Statement 1 quoted below recognises the important role that minerals play in our life:

*'Minerals make a significant contribution to the nation’s prosperity and quality of life, not least in helping to create and develop sustainable communities. It is essential that there is an adequate and steady supply of material to provide for the infrastructure, buildings and goods that society, industry and the economy needs, but that this provision is made in accordance with the principles of sustainable development.'*¹

1.1.3 Minerals are a finite resource and in order to secure their long term conservation it is vital that we make the best possible use of them. We can do this by adopting a hierarchical approach to minerals supply, aiming firstly to reduce wherever practicable the quantity of minerals that we use and the amount of mineral waste generated, and to use as much secondary / recycled material as possible.

1.1.4 Minerals development is different from other forms of development because minerals can only be worked where they naturally occur. The benefit to society of mineral extraction and supply has the potential to conflict with environmental and amenity concerns. The aim of minerals planning is therefore to provide a framework for meeting the nation’s needs for minerals in a sustainable manner. This is achieved by adopting an integrated policy approach to secure appropriate mitigation of environmental and social impacts where extraction is to take place.

¹ Communities and Local Government: MPS1: Planning and Minerals. (2006) Paragraph 1

- 1.1.5 Sand and gravel is the most significant mineral found in Hounslow. It is a relatively recent geological deposit, dating from the end of the Ice Age, which is found mainly in past and present river valleys. Sand and gravels are “aggregate minerals”, that is to say, they are used primarily within the construction industry. The principal use of high quality aggregate is in the manufacture of concrete whilst poor grade material is used in road construction or as fill material. Substantial quantities of aggregate minerals are needed for construction work and it is estimated that every new house built requires around 50 tonnes of aggregate and that the total national demand is around 210,000,000 tonnes every year including marine dredged aggregates. This equates to around 4 tonnes per year for every man woman and child in the United Kingdom.²
- 1.1.6 In London only limited amounts of aggregate mineral are now available for extraction. This is due in part to previous extraction of naturally occurring resources and the sterilisation of resources through built development. Some are located in areas such as the royal parks where it is extremely unlikely that extraction will ever be permitted. There are however resources remaining within the London area and within Hounslow in particular, which could make a contribution to the overall levels of provision for the region. However, in order to meet London’s own needs, substantial quantities of aggregates will continue to be imported by road, rail and water.

² Information from the website of the Mineral Products Association.

2 Existing Planning Policy Background

2.1 Introduction

2.1.1 This chapter provides an overview of existing, new and emerging policy documents with a focus on minerals related policies in London. The weight accorded to emerging policy is usually in direct relation to the stage that the plan has reached. It is therefore prudent to consider emerging policy where they are considered to be more in line with higher level Adopted Policies, PPSs or PPGs than older adopted policies. Any new policies to be included in the Hounslow Local Development Framework should have regard in the first instance to relevant adopted policies.

2.2 European Legislation and Guidance

2.2.1 There are no specific European Directives relating to mineral extraction. There are, however, other Directives which have addressed the issue. The most significant of the Directives is 2001/42/EC regarding the assessment of the effects of certain plans and programmes on the environment. This is also known as the Strategic Environmental Assessment Directive or SEA Directive, transposed into UK legislation in 2004. The SEA Directive requires DPDs to be subjected to detailed assessment in order to identify, minimise and where possible mitigate environmental impacts. The aim of the Directive is 'to provide a high level of protection to the environment and to contribute to integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.'³

2.3 National Policy and Guidance

2.3.1 The concept of sustainability underpins all national policy on planning and environmental issues. Policy and guidance on sustainability is contained in Planning Policy Statements (PPSs), Planning Policy Guidance notes (PPGs) and Planning Circulars. These provide specific policy and guidance on a wide range of planning related topics which may have relevance to mineral sites. Those of greatest relevance for our purposes here are:

2.3.2 **PPS1: Delivering Sustainable Development (2005)** sets out overarching planning policies for the delivery of sustainable development through the planning system which are based around the following themes;

- social cohesion and inclusion;
- protection and enhancement of the environment;
- prudent use of natural resources;
- sustainable economic development; and
- integrating sustainable development in Development Plans.

2.3.3 Paragraph 27 (iv) of PPS 1 also requires Mineral Planning Authorities to seek to bring forward sufficient land to meet expected needs for raw materials such as minerals whilst taking into account issues such as accessibility and sustainable transport needs, the provision of essential

³ SEA Directive, Article 1

infrastructure, including for sustainable waste management, and the need to avoid flood risk and other natural hazards.

- 2.3.4 **PPS1: Planning and Climate Change - Supplement to Planning Policy Statement 1 (December 2007).** This sets out how planning should contribute to reducing emissions and stabilising climate change and take into account unavoidable consequences of development. Whilst this makes no specific reference to minerals planning, the overarching principles must be applied to all development.
- 2.3.5 **PPG2: Green Belts (1992)** contains specific advice in relation to mineral extraction in Green Belt areas and is relevant to Hounslow which has several areas designated as Metropolitan Green Belt. Most importantly this guidance recognises that mineral extraction is not necessarily inappropriate development in Green Belt, but it is essential that high environmental standards are maintained and that sites are restored to the highest standard.
- 2.3.6 **PPS10: Planning for Sustainable Waste Management (July 2005)** provides advice on how the land use planning system should contribute to sustainable development through the provision of waste management facilities including waste disposal in appropriate locations to meet projected needs. As there are close links between minerals planning and waste planning this is an important document.
- 2.3.7 **PPS12: Local Spatial Planning (2008)** is of crucial importance to local planning authorities in the process of creating a new LDFs, setting out the processes and methodology which should be used to ensure that Local Development Documents are robust and in accordance with higher order plans. The aims and objectives of PPS12 are not specific to producing minerals planning policies or DPDs and on this basis a detailed analysis has not been included in this report. However PPS 12 is relevant to this report, as an evidence base study, and states that evidence should be up to date, reflect the local circumstances and be proportionate to the purpose of the emerging Plan. Emerging LDFs are required to be based upon participation and background facts, as stated in paragraph 4.37 of PPS 12;

'Participation: evidence of the views of the local community and others who have a stake in the future of the area.

Research/ fact finding: evidence that the choices made by the plan are backed up by the background facts.'

- 2.3.8 Other PPGs and PPSs which will have a bearing on proposed mineral policy are:
- PPS 5 – Planning for the Historic Environment (2010)
 - PPS 9 – Biodiversity and Geological Nature Conservation (2005)
 - PPG13 - Transport (2001)
 - PPG17 – Planning for Open Space, Sport and Recreation (2002)
 - PPS 23 – Planning and Pollution Control (2004)
 - PPS 24 – Planning and Noise (1994)
 - PPS 25 - Development and Flood Risk (2006)

2.4 Key Minerals Policies and Objectives

- 2.4.1 Minerals Planning Guidance Notes (MPGs), and their replacements, Minerals Policy Statements (MPSs), set out the government's policy on minerals and planning issues. These are summarised below:
- 2.4.2 **MPS1: Planning and Minerals (2006)** sets out the following overarching requirements for the provision of minerals;
- ensure prudent, efficient and sustainable use of minerals and recycling of suitable materials to minimise extraction;
 - conserve and safeguard mineral resources;
 - reduce impact on the environment and human health where possible arising from the extraction, processing, management or transportation of minerals;
 - protect areas of designated landscape value and conservation importance;
 - promote the sustainable transportation of minerals; and ensure quality restoration of sites and support a wide range of after-uses.
- 2.4.3 **MPS2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England (2005)** sets out the environmental considerations that Mineral Planning Authorities in England are expected to follow when preparing development plans and considering applications for minerals development.
- 2.4.4 **MPG2: Applications, Permissions and Conditions (1998)** provides more detailed advice on the handling of planning applications for minerals development, and on permitted development rights for minerals. Although this has now been superseded by MPS 2 its content is relevant to any guidance to be included in DPDs regarding the content and treatment of planning applications.
- 2.4.5 **MPG7: Reclamation of Mineral Workings (1996)** sets out detailed guidance on policies, consultations, conditions and techniques relevant to achieving the effective restoration of mineral workings, whether restoration is for agriculture, forestry, or amenity use.
- 2.4.6 **MPG10: Provision of Raw Material for the Cement Industry (1991)** provides advice to mineral planning authorities for controlling the provision of raw material for the cement industry. The MPG sets out considerations which Mineral Planning Authorities need to take into account when producing minerals policies for the industry in their development plans and some of the other factors that need to be taken into account when determining applications for planning permission.
- 2.4.7 **MPG14: Environment Act 1995: Review of Mineral Planning Permissions (1995)** provides guidance on the procedures and approach to be followed in reviewing the planning conditions at mineral sites - a process that should be undergone periodically (broadly, every 15 years) to ensure that all mineral sites are subject to up-to-date conditions.
- 2.4.8 **MPG15: Provision of Silica Sand in England (1996)** emphasises that silica sand is an essential raw material for many industrial processes including the manufacture of glass, production of foundry castings and ceramics. MPG15

advises that silica sand is geologically and geographically sparsely distributed and that, consequently, the mineral is a valuable resource of recognised national importance. It advises that silica sand extraction, as with other minerals, has an impact on the environment which must be carefully balanced against the needs of the community and industry for the mineral.

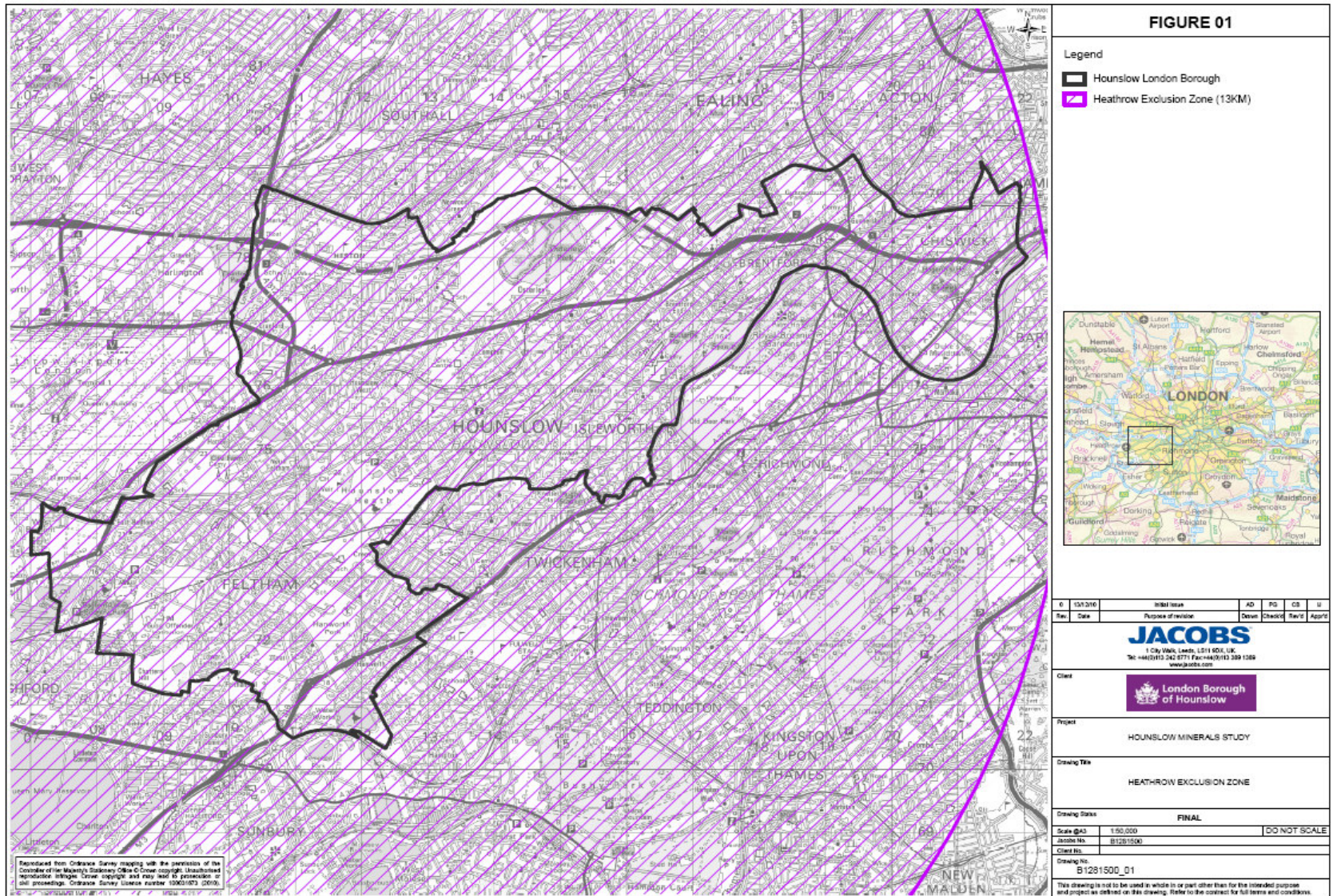
2.5 Level of Aggregates Provision

- 2.5.1 Of crucial importance in the preparation of mineral policies is the level of aggregate provision required from each Mineral Planning Authority. National and regional guidelines for aggregates provision in England are freestanding, rather than being part of any formal MPS or MPGs. The guidelines are based on an econometric model that assesses the relationship between the construction industry and aggregate consumption to predict future needs. The guidelines are reviewed regularly and were recently updated on 29th June 2009.
- 2.5.2 The latest guidelines state that between 2005 and 2020 provision should be made for the extraction of 18 million tonnes of land-won sand and gravel in London. This is the equivalent of 1.125 million tonnes per annum, which is generally rounded up to a figure of 1.2 mtpa. Other aggregate needs within London are expected to be met by 72mtpa marine sand and gravel, 95mtpa alternative materials such as recycled mineral waste and Construction, Demolition and Excavation Wastes (CDEW) and 12 mtpa of material imported from other countries.

2.6 Planning Circular 01/2003 Safeguarding Aerodromes

- 2.6.1 This Planning Circular is of particular relevance to Hounslow which falls within the 13 km consultation zone established around Heathrow Airport and Northolt Aerodrome which is a military establishment. The Circular specifies that consultation is required where buildings above a certain height are proposed or where proposed developments are considered likely to attract birds. Whilst mineral extractive operations do not in themselves attract birds they are identified as operations that can create bird hazard because former extraction sites are often restored by landfill (which in some cases can attract birds) or they are restored to create wetland areas which are usually designed specifically to attract birds. The extent of the 13 km consultation zone is illustrated in Figure 1. This shows that LB Hounslow lies entirely within the consultation zone.

Figure 1: Consultation Zone for Heathrow International Airport



2.7 Regional Policy Context

- 2.7.1 The Greater London Authority was established in 2000. The London Plan was originally published in 2004 however it underwent review and was re-issued in 2008 as 'The London Plan: Consolidated with Changes since 2004'. The Consultation Draft Replacement Plan was published in October 2009 and was subject to public consultation until February 2010. This is a strategic plan setting out an integrated social, economic and environmental framework for the future development of London until the year 2025/26. It replaces RPG3: Regional Planning Guidance for London Planning Authorities (1996).

2.8 The London Plan-Consolidated with Alterations since 2004, 2008

- 2.8.1 Alterations to Housing Provision and Waste and Minerals were adopted in 2008 which replaced the previous policies adopted in 2004. Key policies and objectives are set out below and are explained in more detail where they are relevant to other sections of this report. These policies are part of the adopted Development Plan currently in force for London and will remain so until such time as the emerging replacement Plan is adopted.

2.9 Key Minerals Policies and Objectives of the London Plan

- 2.9.1 Policy 4A.30 'Better use of aggregates' provides the following recycling targets for London;

'95% recycling and re-use of construction and demolition waste by 2020; and 80% recycling of that waste as aggregates in London by 2020.'

- 2.9.2 Policy 4A.31 'Spatial policies to support the better use of aggregates' sets out the following requirements of DPDs;

- to identify and safeguard aggregate resources suitable for extraction;
- to adopt the highest environmental standards for aggregates extraction in line with National Minerals Policy Guidance
- support the development of aggregate recycling facilities in appropriate and environmentally acceptable locations, with measures to reduce noise, dust and visual intrusion to a practical minimum
- to safeguard wharves with an existing or future potential for aggregates handling and ensure adjacent development is designed accordingly to minimise the potential for conflicts of use and disturbance;
- to protect existing railhead capacity to handle and process aggregates; and
- to minimise the movement of aggregates by road and maximise the movement of aggregates via the 'Blue Ribbon' Network.

- 2.9.3 New Minerals Policy 1 'Land won aggregates' – requires London to provide for an output of 1 million tonnes of land won aggregate per annum until 2016. This should be met by an apportionment of 0.5 mt to East London (London Boroughs Havering and Redbridge) and 0.5 mt to West London (London Boroughs Ealing, Hillingdon, Hounslow and Richmond upon-Thames). This represents a reduction on the 1.2 mtpa specified in the 2008 guidance and was accepted following detailed investigation and justification by the London Aggregates Working Party (see below). Mineral Planning Authorities in

London are required to maintain a minimum land bank equivalent to seven years production at a rate of 1 million tonnes per year. Boroughs with reserves outside the apportionment areas are required to consider proposals for extraction in accord with the other policies of the Plan.

- 2.9.4 In July 2010 the Secretary of State issued a statement revoking Regional Spatial Strategies for regions outside London. A subsequent letter of guidance⁴ stated that in the case of aggregates provision previous apportionments should be applied but confirmed that the level of provision may be amended subject to provision of robust evidence to support such a change. The Mayor of London believes the current figure of 1mtpa is unrealistic and has therefore proposed an amendment to the Draft Replacement Plan. This proposed minor amendment is crucial to provision of aggregates for London as the proposed level of aggregate provision is further reduced to 700,000tpa and extends the period to 2031. In contrast to previous guidance the level of provision is set for individual Boroughs on their ability to provide. The level of aggregate provision set for LB Hounslow as a result of the proposed amendment to the Replacement Plan is 100,000tpa. The amendment was subject to Enquiry in Public in December 2010 and, should the Panel approve the changes, it is anticipated that the Replacement Plan will be Adopted in 2011. Until such time the levels of provision indicated by the Adopted Plan remain unchanged.
- 2.9.5 The Mayor of London has produced a number of Strategies which whilst they are not specifically related to mineral planning they are relevant to the effects of mineral extraction and supply in London. These include the following strategies:
- Ambient Noise
 - Air Quality
 - Transport
 - Municipal Waste
 - Biodiversity
 - Culture
 - Economic Development

2.10 Other Guidance

- 2.10.1 Statistics provided by the London Aggregates Working Party (LAWP) are of particular relevance to the minerals policies of the emerging Hounslow LDF.

2.11 London Aggregates Monitoring Report 2000-2007

- 2.11.1 The London Aggregates Working Party is one of a series of Regional Aggregates Working Parties (RAWPs) that have been set up in the English regions, bringing together local government, central government, the minerals industry and other 'key players' to discuss matters of common interest. LAWP is a technical group with the task of monitoring the supply of and demand for aggregates, at the regional (in this case, London-wide) scale.

- 2.11.2 This regional report for 2007 builds upon the London monitoring surveys for the years 2000-2006. It was prepared from returns made by the operators of

⁴ Information from the website of the Mineral Products Association.

quarries, wharves and rail depots in London, in response to the AM2007 survey, together with data on applications from a number of London Boroughs. The report also puts the findings in the context of the London Plan and the Guidelines for Aggregates Provision.

2.12 Summary of 2007 Aggregates Monitoring Survey (AM2007)

- 2.12.1 The AM2007 survey was completed in November 2008 and issued at the beginning of 2009. The executive summary drew attention to the key issues arising from the data, especially the exceptionally low level of reserves, some 2.1Mt - sufficient for only 2 years supply without further permissions.
- 2.12.2 The London Plan accepted the LAWP recommendation for the regional apportionment for land-won sand and gravel to be set at 1mtpa, apportioned equally between West and East London sectors at 0.5mtpa.
- 2.12.3 If the level of aggregate sales is to be maintained at the London Plan level of 1mtpa then the London Boroughs will need to identify through their DPDs, sites/areas in which applications for extraction would/might be acceptable. Industry will also urgently need to submit planning applications for mineral extraction if the apportionment and the landbank requirements are to be achieved.

2.13 LAWP Annual Report 2008

- 2.13.1 LAWP responded to the draft Marine Bill on 5 June 2008, emphasising how crucial the supply of marine won aggregates is to London. In the LAWP response support was given to the Bill's requirement for a strategic plan led approach towards marine planning and to the proposed introduction of a marine policy statement and 20-25 year marine plans. LAWP suggested that mechanisms should be developed to co-ordinate demand and supply for marine and terrestrial sources at both national and regional levels.
- 2.13.2 The following points are referred to in the LAWP Annual Report and will be included in later sections of this report, where relevant:
- 13 active wharves on the River Thames received aggregate in London in 2007. Ten of these landed over 4.1Mt of marine dredged sand and gravel. This is an increase of some 0.5Mt on 2006.
 - Seven of the wharves handled over 100,000 tonnes, with three wharves together handling nearly 2.5Mt, some 60% of landings. There is a significant amount of marine aggregate transhipped upstream from downstream wharves, both from London and Kent wharves. This totals at least 550,000 tonnes, so sales in London should therefore be seen as perhaps 3.5Mt.
 - The origin of the marine dredged sand and gravel landed at R Thames wharves in London was principally from the North Sea and Thames Estuary.
 - In 2007, London rail depots handled some 1.3Mt of marine dredged aggregate, which is some 400,000 tonnes more than in 2006. Most of this was handled at 9 depots in central London, transported from rail connected wharves on the River Thames in London or from Cliffe in Kent.
 - Over 85% of all the crushed rock to rail depots was imported from the South West and East Midlands regions. London continues to be heavily

dependent on imported crushed rock supplies being maintained to meet its aggregate requirements.

3 Hounslow in Context

3.1 Hounslow’s Current Minerals Policy Position

3.1.1 The Adopted LB Hounslow UDP (2003) recognises the importance of minerals in meeting the apportionment figure for West London. Through the ‘saved’ policies the UDP identifies two Areas of Search for future minerals development and safeguards existing consented mineral working sites, as shown in Policies ENV-P3.1 to ENV-P3.4 in Appendix A. There are also saved policies for the protection of Green Belt and the River Thames and the transportation of minerals by methods other than road. The saved policies also seek to protect existing wharfs and railheads and encourage increased use for mineral freight.

3.2 LB Hounslow’s Neighbours

3.2.1 It may be useful at this point to set out exactly how Hounslow and its neighbours fit into the plan making process. Within London the individual Boroughs are the Mineral Planning Authorities (MPAs) responsible for both policy formulation and development control in relation to minerals. Outside of London these functions are the responsibility of either the County Councils or the Unitary Authorities.

3.2.2 The MPAs surrounding Hounslow are as follows:

MPA	Lower Tier Authority
London Borough of Ealing	-
London Borough of Hammersmith and Fulham	-
London Borough of Richmond upon Thames	-
Surrey County Council	Borough of Spelthorne
London Borough of Hillingdon	-

3.2.3 The same broad geological formations are present across these administrative areas as are present in Hounslow. Information relating to this is contained in Minerals Resource Maps prepared by the British Geological Society. Details relating to Hounslow are included in the county map for Surrey.

3.3 Historic Levels of Production

3.3.1 The counties which are adjacent to London’s western boundaries, which include Hertfordshire, Buckinghamshire, Berkshire and Surrey, have been significant producers of minerals for many years. Figure 2 below shows the levels of sand and gravel production for these counties in each year since 1989, which is generally considered to be the high point of a temporary “boom”. It also shows for comparison production figures for London.

3.3.2 It should be noted that some figures such as those for Berkshire and Buckinghamshire in the late 1990s and early 2000s include substantial amounts of sand and gravel extracted as by-products of other development schemes rather than in response to immediate market demands.

3.3.3 Figure 2 shows that historic production within surrounding counties has been much higher than it is now. Declining levels of production can be attributed to importation of resources by rail from other regions, use of alternative materials and greater efficiency in the use of aggregates together with declines over the years in economic performance and/or construction rates.

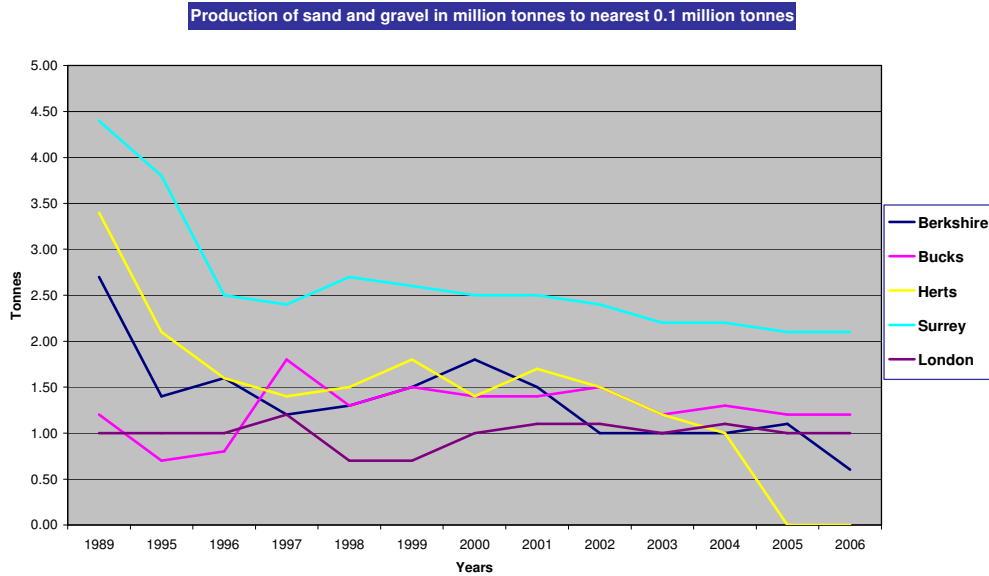


Figure 2: Past Production Levels

3.3.4 Figure 3 gives the split of sand and gravel production between West and East London where known. Data collection for this did not commence until 2004⁵.

⁵ Sources: Annual Monitoring Reports published by SERPLAN, SEERA, EERA, and GLA, various years the figures for West and South London including one quarry in the London Borough of Sutton and Hounslow and Hillingdon.

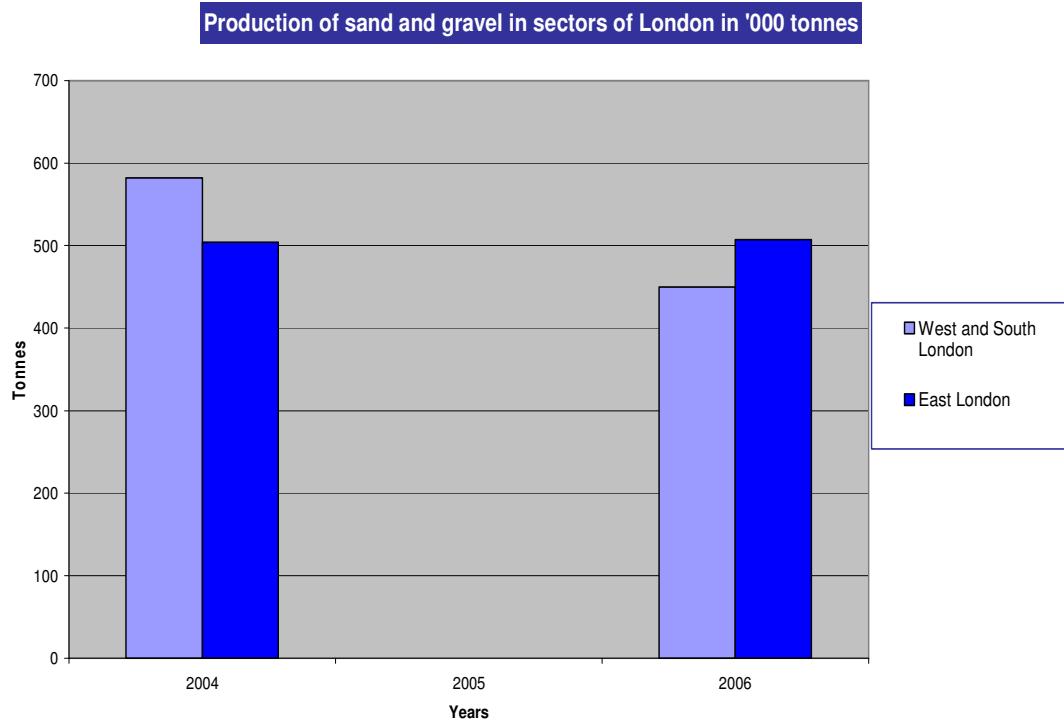


Figure 3: Production figures for East and West London

3.3.5 The regional aggregates apportionments set out in national guidance and outlined above are subject to “sub-apportionment” to individual areas. These figures are not however broken down to individual MPAs. Thus Policy 4A.32 of the 2008 London Plan requires 1.0 mtpa to be split evenly between West and East London making the apportionment for West London 0.5 mtpa. In contrast the latest amendment proposes a figure of 700,000 tpa for London with only 100,000 tpa to be provided by LB Hounslow .

3.3.6 As there is, at the present time, no intention to make further divisions, for the purposes of this report it must be assumed that imports from surrounding counties, and other regions will continue to play a significant role in the provision of aggregates in the coming years.

3.4 Current Planning Policies for Minerals in Adjacent MPAs

Table 1 below identifies the relevant plans and their current status. A table summarising the subject matter of individual policies in adopted and emerging Mineral Plans and DPDs is set out in Appendix A.

Authority	Documents	Status
London Borough of Richmond upon Thames	LDF Core Strategy	Adopted 2009
Surrey County Council	Minerals Local Plan (1993)	Saved policies
	Minerals and Waste LDF Core Strategy	Preferred Options (scheduled for adoption 2011)
Ealing Council	Unitary Development Plan (2004)	Saved policies
	LDF Core Strategy	Issues and Options (scheduled for adoption 2011)
London Borough of Hammersmith and Fulham	Unitary Development Plan Review (2003)	Saved policies
	LDF Core Strategy	Preferred Options (scheduled for adoption 2011)
London Borough of Hillingdon	Unitary Development Plan (1998)	Saved policies
	LDF Core Strategy	Preferred Options (scheduled for adoption 2011)
	LDF Core Strategy	Adopted 2009

Table 1: Adopted and Emerging Mineral Development Plans and DPDs for Adjoining Authorities

3.4.1 An overview of Neighbouring Minerals Plans, Local Plan policies and LDF policies relevant to minerals planning in Hounslow is provided below:

3.5 Surrey

South East Plan (2009)

3.5.1 The South East Plan formed the Regional Spatial Strategy for Surrey and played a formative role in minerals planning in the surrounding areas not covered by the London Plan. Although this has now been revoked, it set out a vision for the future of the South East region to 2026, outlining how the planning authorities need to respond to challenges facing the region, in particular meeting housing requirements, promoting economic growth, sustainable transport and protecting the environment. Chapter 10 relates to waste and minerals. It set out the overall context for minerals planning within the Counties and Unitary Councils in the south east outside of London. Key policies and objectives are summarised below.

3.5.2 Policy M1 ‘Sustainable Construction’ sets out a long term aspiration that annual consumption of primary aggregates will not grow from the 2016 level in subsequent years.

3.5.3 Policy ‘M2 Recycled and Secondary Aggregates’ seeks to reduce the need for primary aggregates through requiring an increase in the use of secondary aggregates and recycled materials in the South East from 6.6mtpa by 2016.

3.5.4 Policy M3 ‘Primary Aggregates’ This policy has been the subject of Review and Examination in Public. It expands on the objectives of Policy M2, requiring the supply of construction aggregates in the South East to be met from;

- *a significant increase in supplies of secondary and recycled materials,*

- *a reduced contribution from primary land-won resources; and*
 - *an increase in imports of marine-dredged aggregates.*
- The policy also requires mineral planning authorities to maintain a landbank of at least seven years of planning permissions for land-won sand and gravel throughout the Plan period.

3.5.5 Policy M4 'Other Minerals' requires LDFs to make future provision for clay, chalk, silica sand and gypsum as regionally significant minerals of national importance. Minerals Authorities are required to;

- promote the use of substitute and recycled waste materials to conserve natural resources, where practical
- safeguard high quality reserves for appropriate end uses; and
- promote new handling facilities where it would increase the quantity of minerals and manufactured products being transported by rail or water.

3.5.6 Policy M5 'Safeguarding of Minerals Reserves, Wharves and Depots' requires Minerals Authorities to assess the need for wharf and rail facilities for the handling and distribution of imported minerals and processed materials and to identify strategic sites for safeguarding.

3.5.7 It is currently unclear how the south east plan will be replaced to allow for strategic local minerals planning.

Adopted Surrey Minerals Local Plan (1993)

3.5.8 From a total of 29 saved mineral policies there are 4 directly related to minerals planning, as set out in Appendix A. These policies relate to the location of aggregate depots and restricting the extraction of peat and Fullers Earth. The Plan does not identify Preferred Areas but it does identify remaining areas of sand and gravel and give them consideration as 'Potential Working Sites'. Administrative Boundary changes effected in 1995 moved four of these identified sites into Hillingdon.

Surrey Minerals Core Strategy Preferred Options (2008) and Primary Aggregates DPD Preferred Options (2006)

3.5.9 Surrey County Council has produced a series of technical papers to inform the emerging LDF one of which considers the introduction of Mineral Zones. The Core Strategy Preferred Options includes draft policies for reducing the demand for minerals, promoting recycling, safeguarding of important reserves and infrastructure, meeting the SE Plan's apportionment and ensuring a seven year landbank is maintained for aggregates. There are specific policies for the following topics, as shown in Appendix A:

- Silica Sand
- Brick Clay
- Oil and Gas Development
- Non-Aggregates supply
- Rail Aggregate Depots
- Non-Aggregate Minerals
- Mineral Transport
- Restoration

- 3.5.10 The Surrey Primary Aggregates DPD sets out the extraction and supply requirements for aggregates in the County. It includes a presumption against mineral extraction outside of the 'Preferred Areas' identified in the draft Core Strategy unless exceptional circumstances can be demonstrated. A set of qualifying criteria are provided in this respect.

Borough of Spelthorne

- 3.5.11 The Borough of Spelthorne is a lower tier authority within the county of Surrey and adjacent to Hounslow. Plans and policies relating to minerals development are therefore county matters. The Adopted Core Strategy (2009) for Spelthorne includes policies for protection of the Green Belt and the River Thames and its tributaries. These policies tend to make presumptions against development which will be deemed to be detrimental to the Green Belt or to the purposes of including land within the Green Belt. The impact of proposed minerals development within Hounslow and adjacent to the boundary with Spelthorne may well be deemed to be unacceptable because of environmental effects on these two key areas.

3.6 London Borough of Ealing

- 3.6.1 The Adopted LB Ealing UDP (2004) includes two saved policies in respect of mineral development. The Plan states that, due to its urban nature, Ealing has very little scope for mineral development and does not identify any sites for mineral extraction. Areas that have not been already been sterilized by built development have been designated as open space or are of high amenity value and are in, any case, close to residential areas making them unsuitable for minerals development. However whilst there is very little potential for extractive operations, the Plan does not resist the principle of minerals development. Proposals for minerals development are required to demonstrate sufficient 'need, compliance with national policy, environmental protection and suitable after-care. The UDP also supports the increased use of rail and barge borne freight, particularly aggregates, but seeks to avoid the concentration of rail-to-road transfer (or vice versa) solely at existing railheads for traffic and environmental reasons.
- 3.6.2 The LB Ealing Core Strategy Issues and Options (2007) emphasise the need for prudent use and reduction of extraction of minerals wherever possible and continues to support minerals transport policies by including an option for the provision of sites for minerals aggregates to facilitate the use of building materials.

3.7 London Borough of Hammersmith and Fulham

- 3.7.1 The LB Hammersmith and Fulham have no mineral policies. Both the 'saved' policies of the Adopted UDP and the Core Strategy Preferred Options (2007) seek to protect the importance of the Grand Union Canal and adjoining land which is of high amenity value and is subject to ecological designations. The emerging Core Strategy does however acknowledge the potential for water borne freight through policies designed to safeguard wharfs and adjoining un-used land on and adjacent to the Grand Union Canal. This could have implications for the projected levels of use at existing wharfs within the Borough of Hounslow and will be considered later in this report

3.8 London Borough of Hillingdon

- 3.8.1 Both the 'saved' policies of the Adopted UDP (1998) and the Revised Core Strategy Preferred Options (2007) recognise the need to protect existing wharfs and railheads and incorporate policies to do so. LB Hillingdon propose minerals extraction at three sites which it is anticipated will meet the level of provision it is expected to make to meet the West London apportionment figure. These sites are safeguarded but the emerging Core Strategy states, should any change to the level of provision be required they will assess sites on a Borough-wide basis to meet changes in apportionment figures.
- 3.8.2 Hillingdon recognises the need for flexibility in relation to minerals planning and seeks to balance this with the need to take into account the impact of aerodrome safeguarding as set out in Planning Circular 01/2003. The greater part of Hillingdon's minerals are located within the area covered by the 13km safeguarding area surrounding Heathrow Airport. The implications of this on strategic mineral planning in LB Hounslow will be discussed later in this report.

3.9 London Borough of Richmond upon Thames

- 3.9.1 The Adopted Core Strategy (2009) replaces the strategic policies of the UDP and contains no policies relating to minerals.

3.10 Conclusion

- 3.10.1 The urban nature of the London Boroughs of Hammersmith, Ealing and Richmond effectively limits the opportunities for minerals development and therefore limits the scope for joint working between Hounslow and these neighbouring Mineral Planning Authorities. However, there will almost certainly be opportunities for the neighbouring authorities to contribute to the proportion of alternative minerals in their emerging LDFs. As a result of this and the need to take climate change into account, the main focus of policy in the authorities surrounding Hounslow is to ensure that there is provision for recycling facilities and that the most appropriate means of freight transport are retained, protected and, where possible enhanced through a shift away from road transport.
- 3.10.2 The emerging LDF for Hounslow will need to consider specific minerals policies which will set out how the Borough could meet its apportionment figure. Within Hounslow there is opportunity for mineral extraction, however no planning applications for minerals extraction have come forward in the recent past. This has led to an ever decreasing landbank which is now exhausted. Continuing decreases in the level of aggregate mineral landbanks will give rise to increasing reliance on imported or recycled materials throughout London.
- 3.10.3 The next section of this document sets out the methodology used to identify existing sites where there is potential for expansion and potential new locations for mineral extraction sites. Through this process safeguarding of potential areas for future mineral extraction will be identified to prevent further sterilisation within the Borough.

4 Mineral resources in the London Borough of Hounslow

4.1 Introduction

- 4.1.1 This section provides a brief overview of the mineral resource base in LB Hounslow and identifies which locations if any have unworked mineral reserves.
- 4.1.2 The methodology used to identify these locations took as a starting point published information relating to the geology of the Borough. Areas sterilised by built development, environmental constraints and/or adopted Development Plan Policies for the area were then screened out. The Council's minerals planning files were examined to establish what, if any, extant permissions are in place and to identify any sites which were designated as Dormant under the terms of the Environment Act 1995 Review of Old Mineral Permissions (ROMPs).
- 4.1.3 Each emerging site was then subjected to a desk based appraisal using a pro-forma to ensure consistency during the appraisal process.

4.2 Geology

- 4.2.1 The most recent and best general information relating to the geology of Hounslow is that prepared by the British Geological Survey and published in 2003 (CR/03/073N Mineral Resource Information in Support of National, Regional and Local Planning: Surrey. Comprising Surrey and the London Boroughs of Croydon, Hounslow, Kingston upon Thames, Richmond upon Thames and Sutton). This report consists of text and a detailed geological map at a scale of 1:100,000 annotated to show past and present mineral working sites, rail aggregate depots and certain environmental constraints including national nature conservation designations; international nature conservation designations; Areas of Outstanding Natural Beauty (AONBs) and Scheduled Monuments.
- 4.2.2 The map accompanying the report (See Figure 4) shows that Hounslow is underlain by large areas of sand and gravel. This is defined by particle size rather than composition. Gravel is usually considered to be anything coarser than 5mm with a maximum size of 44 mm and sand is anything finer but not less than 0.075mm. Most sand and gravel is composed of particles that are rich in silica (quartz, quartzite and flint). In Hounslow sand and gravel occurs in superficial or drift deposits which occur in river terraces. The "younger" flood plain terraces associated with the Thames and its tributaries are particularly important. These occur along the western edge of the London conurbation. The southern landscape and mineral deposits e.g. the river terraces in LB Hounslow result from the Anglian Glaciation which started around 480000 bp (before present). Ice up to 1000m thick reached as far south as London and Bristol. It was the greatest glaciation that Britain experienced during the Pleistocene. It diverted the Thames around 100 miles south and laid down the river terraces. These are divided into five separate terraces which range from the Highest and oldest to the lowest and youngest which are Taplow, Kempton Park and Shepperton. These three are of most economic significance with extensive past and present working in areas bounded by Byfleet, Staines, Hounslow and Esher.

- 4.2.3 There is considerable pressure on these resources as a result of high levels of demand for sand and gravel from nearby urban areas as well as from sterilisation from other forms of land use. The younger Thames terraces contain a significantly higher proportion of flint (85 -95%) compared to older deposits and the thickness can be variable. In Hounslow the thickness of the Taplow Gravel is around 6.25 metres whilst the Kempton Park Gravel is up to 8 metres thick.
- 4.2.4 Sub-alluvial gravels are present and generally occur beneath modern river flood plains. These have been identified as running in narrow bands across the centre of the Borough and across the north eastern corner. The limited width of these narrow bands of sub alluvial gravel is likely to preclude any economic working of any sand and gravel present. Further, these deposits are usually saturated and will almost always require wet working.
- 4.2.5 It should be noted that the resources present in the areas shown on the map in Figure 4 are inferred resources. This means that whilst there are known to be resources in a particular location, these resources have not been tested or quantified and are therefore not proven for commercial purposes.

4.3 Past and Present Mineral Extraction in LB Hounslow

- 4.3.1 It is clear from the BGS 2003 map and from the limited information available from LB Hounslow's own records that there has been a considerable amount of mineral extraction over the past 30 years and this has taken place primarily in the central area and south western quadrant of the Borough. However these sites are now identified as inactive, are worked out and/or have been restored.
- 4.3.2 At the start of 2009 only one active sand and gravel extraction site remained. This site is located at to the south of Silverdale Kennels and is variously referred to as Bedfont Road or Greenham Triangle. (See Appendix E: Maps for location of this site). The site has been operating for some 10 years and the operator advises that the reserve will be exhausted within 12 months after which the void space will be restored subject to the necessary consents and planning permissions. This means that there are no active sites within LB Hounslow that have unworked permitted reserves remaining.

4.4 Remaining Resources in LB Hounslow

- 4.4.1 Although there are significant underlying deposits of sand and gravel within the Borough, much of this resource is inaccessible as it has been sterilised by built development or it is subject to other land use designations. Information relating to those sites which remain accessible is available from the following source:-
- In October 2003 the Quarry Products Association, (now known as the Mineral Products Association) were asked by LAWP to identify potential mineral sites across the whole of London which they considered to be commercially viable. This information was required as part of an exercise to assess London's short and longer term ability to maintain a realistic contribution to meet its own aggregate needs. MPA identified 64 potential sites across London, 30 of which are located in West London. 14 of these sites were identified as being in LB Hounslow (Listed in Appendix B). Of the 14 sites identified by the MPA

as having some commercial value only two sites were formally identified by the Council as having potential for sand and gravel extraction. These sites were designated as Areas of Search in the Unitary Development Plan Proposals Map and are discussed in detail at Chapter 6.

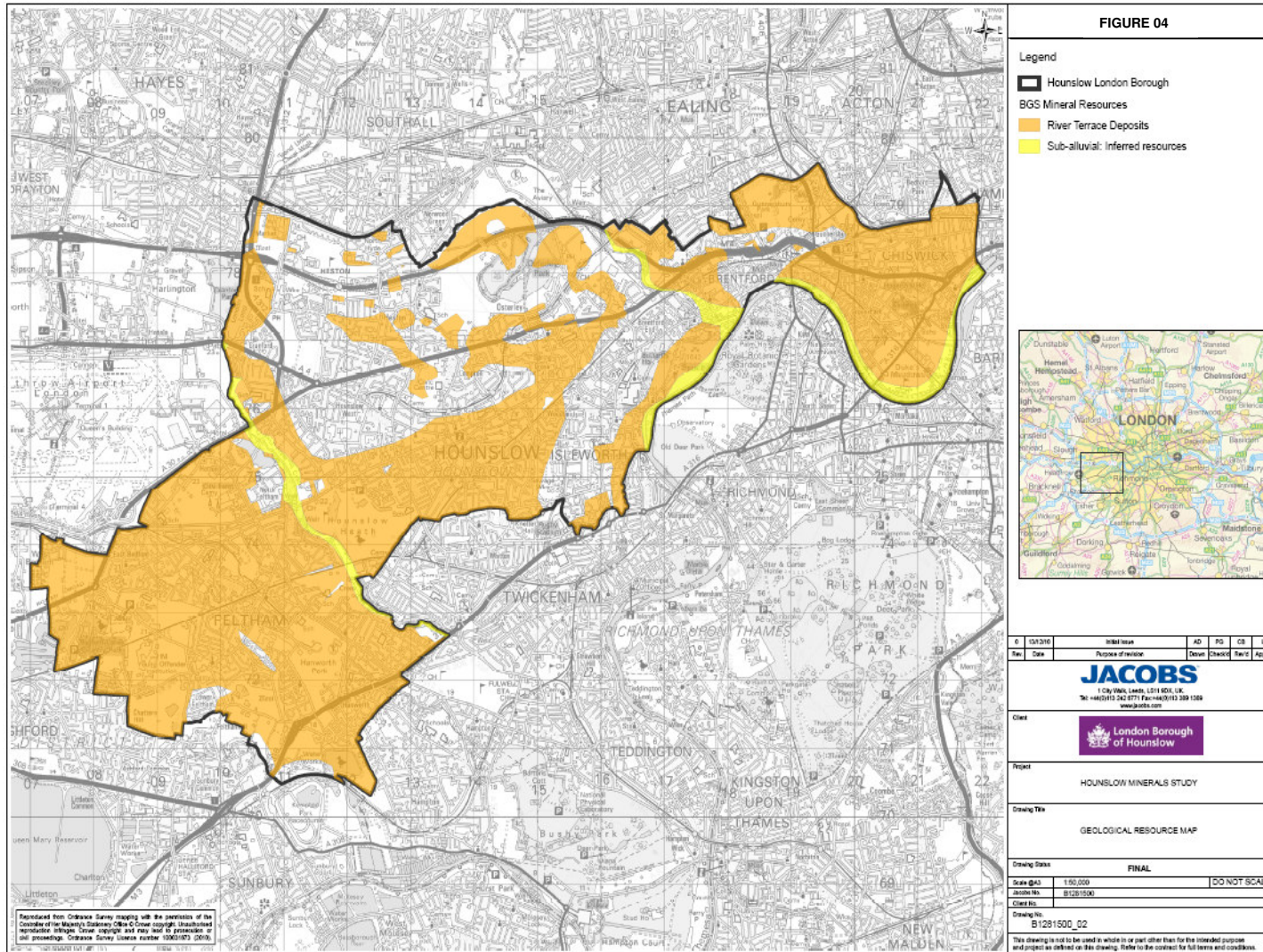
- Minerals operators can often provide vital information in relation to active sites and in relation to potential extensions and new sites. An early part of preparing this background paper was therefore to contact operators within the Borough, the Mineral Products Association and other major industry operators who may have an interest in a particular site. The initial contact to the form of an introductory telephone call followed by a questionnaire about sites, outputs and future estimated production. Following lack of response a further series of telephone calls were made to the original recipients. Unfortunately these failed to generate any responses.
- Other information is often available from the Council's own records of planning applications. In this case the information is limited but a search of LB Hounslow's planning files was carried out to extract as much information as possible in relation to resources which may have been previously identified through the planning process. This information is summarised in Appendix C.

4.4.2 Appendix E: Maps shows the sites identified through any or all of the above methods. Desk based assessments of the sites identified based on the QPA Survey commissioned by LAWP are set out in Chapter 6.

4.5 Minerals other than Sand and Gravel

4.5.1 There may be other minerals underlying the Borough but sand and gravel is the most significant. In view of this further investigations to identify possible future extraction sites for minerals other than sharp sand and gravel have not been carried out.

Figure 4: Geological Resource Map



5 General Environmental Considerations in Relation to Operation and Restoration

5.1 Introduction

- 5.1.1 A key component of planning for minerals must be to secure protection of the environment and to ensure that development does not impact adversely on the living conditions and amenity of people during the extraction process and throughout the subsequent restoration period. This section covers general issues that are relevant to these two topics.

5.2 Protection of the Environment

National Policy Guidance

- 5.2.1 MPS 1 includes among its national objectives for minerals planning the protection of internationally and nationally protected designated areas of landscape value and nature conservation importance from the impacts of mineral development other than in defined circumstances. Among its national policies for minerals planning are policies relating to:-
- Protection of heritage and countryside, biodiversity, landscape, the Green Belt; listed buildings, archaeology, woodland which also includes ancient woodland, agricultural land. The wider countryside including its role in recreation, effects on rural communities; and
 - General environmental protection including policy statements relating to minerals extraction and noise, dust, particle emissions, transportation of minerals, flooding and the water environment.
- 5.2.2 This policy guidance reiterates the detailed national policy statements set out in other guidance on specific topics such as PPG 2 on Green Belts or PPS 5 which addresses cultural heritage issues. Specific guidance on noise and dust in relation to mineral workings is set out in MPS2.
- 5.2.3 A further issue which must be taken into consideration but which is not so clearly defined within national guidance is cumulative impact. This is addressed in relation to minerals development in MPS2 which states that where there are proposals for simultaneous operation of a number of sites in one area over a relatively short period of time, or for phased operations over a relatively longer period, the MPA should consider the need for long term planning to avoid unnecessary sterilisation of resources and how the combined and cumulative impacts of minerals working can be reconciled with the need to protect localities and communities from unacceptable consequences. Examples of how this can be achieved such as controlling the number and timing of permissions by phasing of works and restoration and by use of planning conditions to minimise impacts. However there is currently no detailed guidance on how cumulative impacts might be measured.

- 5.2.4 Using this approach the two key areas in which environmental protection interests should be reflected in the preparation of new policies are:
- 1 - The devising, testing and assessment of options for the locations of sites for future minerals workings.
- 5.2.5 The Practice guide which accompanies MPS1 states that “In identifying preferred areas, MPAs may choose to follow a search sequence, with the aim of identifying initially those areas where extraction would be most sustainable, which would generally involve the mineral being transported the least distance, taking account of the objectives and policies for minerals planning set out in MPS1, the appropriate Regional Spatial Strategy and Local Development Framework.”
- 2 - Drafting development control policies for minerals development.
- 5.2.6 Guidance published by the Planning Officers Society in 2003 sets out good practice pointers for drafting minerals policy. These are;
- To ensure that policies are clear and precise and use simple and concise sentences and statements;
 - Ensure that policy will make a meaningful contribution to planning decisions;
 - Make sure that every policy covers a land-use planning issue of local importance;
 - Consider setting out criteria as part of a policy where this will contribute to clarity;
 - Distinguish clearly between policy and reasoned justification;
 - Explain how policies that obviously conflict should be weighted;
 - Make sure that every policy is capable of implementation or impact within the plan period;
 - Ensure that the objective behind the plan and each policy is set out ;
 - Ensure that the policy conforms with government advice or fully justifies an alternative approach;
 - Ensure policy has full regard to the broader framework for the area; and
 - Consider making use of SPG to elaborate upon policy within the plan.
- 5.2.7 All of the above must be taken into account when considering policies which will shape future minerals development within the Borough and its impact on the local environment. It is of primary importance that the broader framework of the plan is taken into consideration and therefore the Borough will need to be very clear as to its overall spatial and environmental objectives.
- 5.2.8 Existing “Saved” policies relating to restoration will serve as a starting point for the development of future minerals policy but will require careful assessment to ensure that they do address the points set out above.

5.3 General Restoration Issues

- 5.3.1 In order to secure a robust approach to restoration Hounslow should consider the following:

- The need for restoration to be of the highest standard to comply with guidance contained in PPG2 relating to minerals development within the Green Belt;
- Securing prompt and progressive restoration in order to avoid large areas being left in a disturbed condition for long periods of time;
- The need for restoration and appropriate after use to be planned for at the same time as the extraction operations are being planned and to the same level of detail;
- The role of minerals extraction in securing public benefits such as landscape improvements, improved public access and the provision of other facilities for public use post restoration within limits imposed by current legislation and guidance;
- The need to take into account the likelihood of restoration being successfully achieved;
- Contingency restoration – this makes provision for a site to be returned to an acceptable condition in the event that extraction ceases and/or that localised short term difficulties such as a shortage of suitable restoration material prevent full restoration of the site taking place;
- Approaches to the restoration of old mineral workings having regard to statutory requirements for mineral planning permissions to be subject to periodic review to ensure that their conditions are in line with contemporary restoration standards; and
- The issue of restoration in relation to aviation safety issues.

6 Possible Future Extraction Sites in LB Hounslow

6.1 Introduction

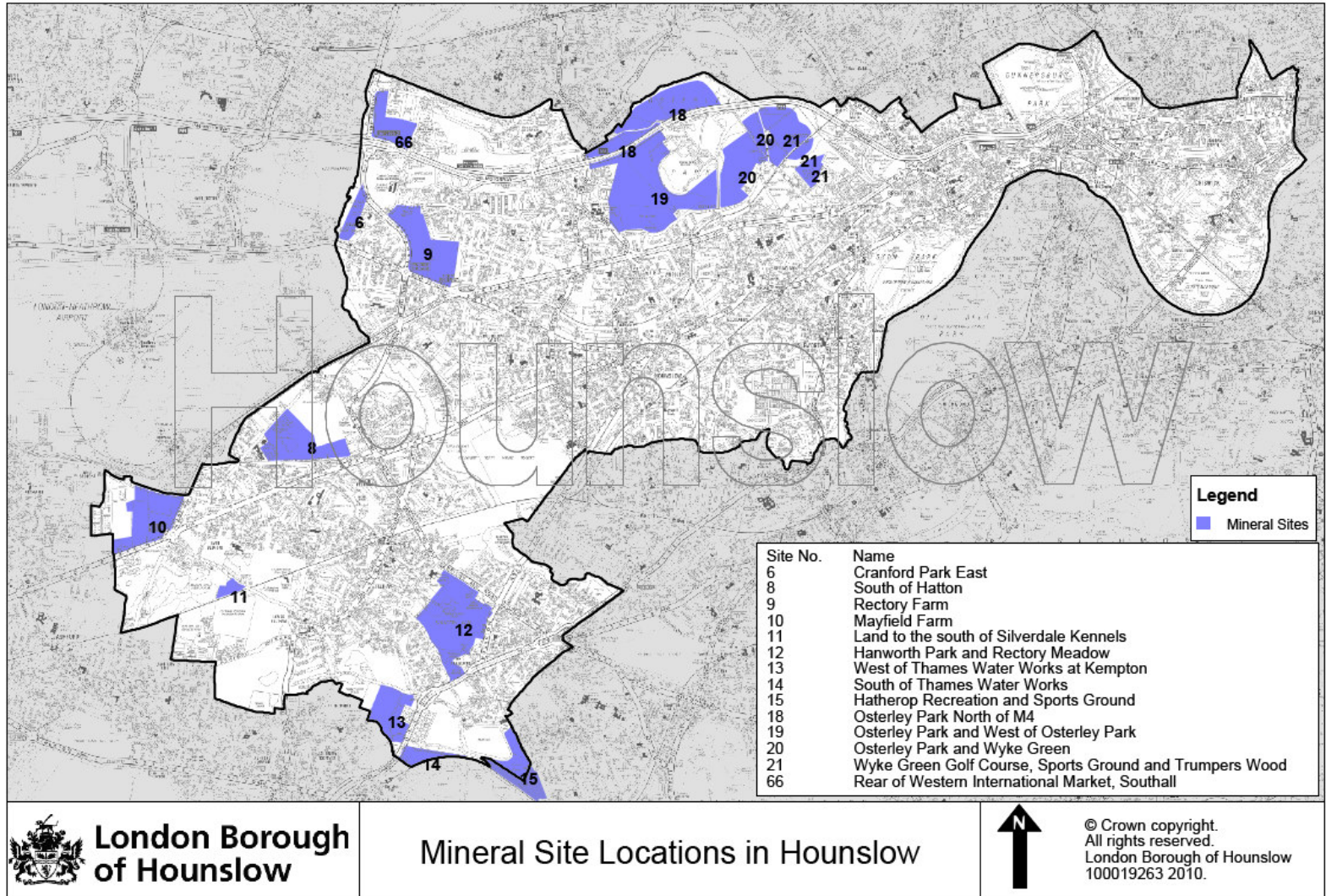
- 6.1.1 This chapter presents initial assessments based on desk studies of the suitability for extraction of the remaining resources of sand and gravel in Hounslow. The assessments in this section take no account at this stage of the wishes or intentions of individual landowners or minerals operators concerned as these views have not yet been received. These will however be material considerations in making final decisions as to which sites will be identified in the Council's Core Strategy. The identification of sites with potential for extraction does not make any presumption that planning permission will be granted or that expressions of interest in particular sites will come forward.

6.2 Areas for Assessment

- 6.2.1 Based on an assessment of underlying geology (discussed at 4.2 above) the QPA (now MPA) Survey (2004) identified some 14 sites in LB Hounslow with the potential to make a significant contribution to the provision of sand and gravel for West London. The survey numbering system has been retained to assist identification and the areas and potential yield figures are approximate. However this list is not exhaustive and there will be opportunity as the plan making process proceeds for other sites to be put forward by interested parties for consideration.

Figure 5 shows the location of these sites within the Borough.

Figure 5: Mineral site locations in LB Hounslow



The 14 sites are identified in Table 2 below.

Site No (LAWPs Survey)	Site	Area (ha)	Yield (mt)
6	Cranford Park East	9ha	0.5mt
8	South of Hatton	37ha	2.2mt
9	Rectory Farm	43ha	2.5mt
10	Mayfield Farm	37ha	2.2mt
11	Land to south of Silverdale Kennels	4Ha	0.25mt
12	Hanworth Park and rectory meadow	64ha	3.8mt
13	West of Thames Waterworks at Kempton	24ha	1.4mt
14	South of Thames Water Works	9ha	0.5mt
15	Hatherop recreation and sports ground	24ha	1.4mt
18	Osterley Park North	47ha	2.8mt
19	Osterley Park and west Osterley Park	92ha	5.5mt
20	Osterley Park and Wyke Green	38ha	2.3mt
21	Wyke Green Golf Course, sports Ground and Trumbers Wood	38ha	2.3mt
66	Rear of western international Market	20ha	1.2mt
Total		486ha	28.8mt

Table 2: Areas and potential yields of inferred resources

6.2.2 Only Site 11: Land to the south of Silverdale Kennels, was active at the time of the survey with a further permission capable of being implemented. Permission was granted on appeal in 2007 for the extraction of some 0.25 mt. This permission has been implemented and the reserve is now exhausted. The site is bounded on all sides by rail lines, highways and water. The site area cannot therefore be extended and existing workings cannot be deepened due to the level of the local water table. As there is no potential for extension at Site 11 it has been excluded from the table. The remaining 13 sites are listed in Table 3.

Site No (LAWPs Survey)	Site	Area (ha)	Yield (mt)
6	Cranford Park East	9ha	0.5mt
8	South of Hatton	37ha	2.2mt
9	Rectory Farm	43ha	2.5mt
10	Mayfield Farm	37ha	2.2mt
12	Hanworth Park and rectory meadow	64 ha	3.8mt
13	West of Thames Waterworks at Kempton	24ha	1.4mt
14	South of Thames Water Works	9ha	0.5mt
15	Hatherop recreation and sports ground	24ha	1.4mt
18	Osterley Park North	47ha	2.3mt
19	Osterley Park and west Osterley Park	92 ha	5.5mt
20	Osterley Park and Wyke Green	38 ha	2.3mt
21	Wyke Green Golf Course, sports Ground and Trumpers Wood	38ha	2.3mt
66	Rear of western international Market	20ha	1.2mt
Total		482ha	28.6mt

Table 3: Areas and potential yields of short-listed inferred resources

6.2.3 At this stage the 13 remaining sites listed in Table 3 above provide a reasonable number of sites for assessment of the potential for Hounslow to contribute to the supply of sand and gravel over the plan period of the Core Strategy. However in order to fully assess each site and to identify which sites (if any) would be suitable for extraction over the plan period, further desk study has been undertaken which can be found below in section 6.3 of this Chapter. This study will assist the decision making process as to which sites should be taken forward into the Core Strategy.

6.3 Individual Site Assessments

6.3.1 The 13 sites have been subject to a desk based study to identify, where ever possible, any relevant planning history relating to each site. Such relevant information as is available is set out in Appendix C. Adopted Unitary Development Plan designations have also been considered. The individual sites are described below and individual site maps are contained in Appendix E.

6.3.2 Site 6 Cranford Park East

This 9 hectare site owned by London Borough of Hounslow (LBH) has a potential yield of 0.5mt. It is currently in use as public open space with associated recreational development. In addition to lying within the designated Green Belt, the site also lies wholly within the Cranford Village Conservation Area (ENV-B.2.2), forms part of a Green Chain (ENV-N.2.10), is designated as Publicly Accessible Open Space (ENV-N1). In addition to this the eastern edge of the site falls within an Archaeological Priority Area (ENV-B3).

The southern boundary of the site is located some 2km from the northern boundary of the Heathrow International Airport (see Figure 1). It is therefore

within the safeguarding zone of Heathrow and consultation with CAA would be required to further discuss the potential for future extraction on this site.

Other physical constraints include risk of flooding as the site lies within a flood zone and a gas pipeline runs parallel to the river for the entire length of the park.

This site is deemed to be of considerable importance to the borough in terms of heritage, nature conservation, open space and recreational value. It provides an important link between two green chains. The potential for adverse impacts arising from mineral extraction is high.

6.3.3 Site 8 South of Hatton

Mineral extraction has previously taken place over the northern areas of this 37 hectare site. Planning permission (00576/K/P9) was granted on appeal in 1978. Work on the northern area of site was completed in 1984. There is some evidence of an access road to the southern half of the site which would imply that this area was also worked to some degree. The 2003 Survey estimated that the remaining unworked area of this site could provide a potential yield of 2.2 mt.

This Green Belt site which is owned by LB Hounslow is currently in use as school playing fields, allotments and open land. The site forms part of a Green Chain (ENV-N.2.10) and part of the site is also designated as Publicly Accessible Open Space (ENV-N1). It is also identified as a Comprehensive Project Area (i.e. areas of Green Belt which would benefit from restoration, landscape, public access, recreation, nature conservation implementation/enhancement) within the Adopted UDP

Housing is located to the north and beyond the Duke of Northumberland river which forms the southern boundary; a school is located to the west.

Records indicate that a gas pipeline crosses the site and the river on its southern boundary

The site is located within the safeguarding zone of Heathrow International Airport (1km to the north west), therefore consultation with CAA would be required to further discuss the potential for future extraction on this site.

Possible adverse impacts of development on this site would be the loss of valuable recreational and Publicly Accessible Open Space. The proximity of sensitive uses to the north south and west suggest that mineral working could create adverse visual impacts in the short to medium term and adversely affect local environmental conditions through increased generation of noise dust and traffic movements.

6.3.4 Site 9 Rectory Farm

This Green Belt site covers 43 hectares of privately owned land which has a potential yield of 2.5mt. Planning history provides evidence that an application for extraction of sand and gravel was refused on appeal in 1990.

The adopted Development Plan, in accordance with national guidance affords protection to agricultural land with particular reference to higher

grade land. In addition to this the site forms part of a Green Chain (ENV-N.2.10) and lies within an area of Publicly Accessible Open Space Deficiency (ENV-N1). The site is also identified as a proposed Comprehensive Project Area (i.e. areas of Green Belt which would benefit from restoration, landscape, public access, recreation, nature conservation implementation/enhancement) within the UDP.

The site is located within the safeguarding zone of Heathrow as the southern boundary of the site lies within 2.5 km of the northern boundary of the International Airport. Consultation with CAA would therefore be required to further discuss the potential for future extraction on this site.

The site is not at risk of flooding. There are sensitive residential uses to the north, east and southern boundaries. The strategic road network forms the western boundary.

The potential impacts on adjacent land uses from minerals development on this site are those which arise as a result of operational development i.e. noise dust and increased traffic. In addition to this any extractive development will be visible from adjoining roads and residential development.

6.3.5 Site 10 Mayfield Farm

This site, which is within the ownership of BAA covers some 37 hectares of Green Belt land which is in productive agricultural use. The adopted Development Plan, in accordance with national guidance affords protection to agricultural land with particular reference to higher grade land.

The site is located within an area of Publicly Accessible Open Space Deficiency (ENV-N1), forms part of a Green chain (ENV-N2) an Archaeological Priority Area (ENV-B3) and includes 2 scheduled Monuments. It is also designated as a Comprehensive Project Area.

Relevant planning history for the site discloses that an application for a balancing pond on site (01060/N/P1) was approved in 2000. This development was deemed to be acceptable because it would not impact upon minerals resources which must not be sterilised. However previous site history indicates that permission for minerals extraction was refused as early 1948 because of its high archaeological value.

The site adjoins Surrey CC boundary and though interest in the site has previously been expressed by industry, development would not be feasible unless the sites were worked together.

The site is visible from adjacent residential development to the east and the strategic road network to the west. The site is located in close proximity to a Fuel Storage depot and is located within 1km of the International Airport. Consultation with CAA would therefore be required to further discuss the potential for future extraction on this site.

6.3.6 Site 12 Hanworth Park and Rectory Meadow

This is a large 64 hectare site within the designated Green Belt. The site is currently in use as a large park with public access and school playing fields.

The site forms part of a Green Chain (ENV-N.2.10) and is protected by designations including Publicly Accessible Open Space (ENV-N1), Heritage Land, and is a Borough Grade 2 Site of Local Nature Conservation Importance. In addition to this the site adjoins an Archaeological Priority Area and forms part of the Hanworth Park Conservation Area.

This site is located within the safeguarding zone of Heathrow International Airport which is some 13 km away. Consultation with CAA would therefore be required if development exceeds 45m height limit.

There are a number of sensitive uses adjoining the site. Hanworth House is a listed building and residential development adjoins much of the park boundary, together with two schools and a sports centre.

There is no risk of flooding but the impact of operational mineral development on the surrounding land uses could be significant in terms of visual impact noise, dust, loss of valuable recreational land. The ecological value of the site together with its heritage value would also need to be carefully balanced against a potential yield of 3.8 mt.

Loss of playing fields would require consultation with Sport England prior to inclusion as a potential site for future extraction.

6.3.7 Site 13 Land west of Thames Waterworks at Kempton

This site is identified as an Area of Search for Minerals (ENV24) within the UDP. It covers some 24 hectares and is expected to yield in the region of 1.4 mt. It is currently in agricultural use with evidence of some utilities within the site.

The land is designated as Green Belt, forms part of a Green Chain (ENV-N.2.10) and is also designated as Publicly Accessible Open Space (ENV-N1) and a Comprehensive Project Area. It is located close to Kempton Park East Reservoir which is a Special Protection Area, RAMSAR site and a Site of Special Scientific Interest.

The site is bounded at the western corner by residential properties which are located within the administrative area of the Borough of Spelthorne. Other constraints affecting the site are the route of the Staines Reservoir Aqueduct on the southern boundary and the waterway along the eastern boundary of the site

This site is located within the safeguarding zone of Heathrow International Airport which is some 13 km away. Consultation with CAA would therefore be required if development exceeds 45m height limit.

The potential impacts on adjacent land uses from minerals development on this site are those which arise as a result of operational development ie noise dust and increased traffic in particular the impact on vehicles on Feltham Hill Road. In addition to this any extractive development will be visible from adjoining roads and the A316 Country Way flyover and adjacent residential development.

6.3.8 Site 14 South of Thames Water Works

A site covering 9 ha with a potential yield of 0.5mt. The majority of the site lies within a Nature Conservation Area (ENV-N.2.2). It is also located close to Kempton Park East Reservoir: a Special Protection Area, RAMSAR site and Site of Special Scientific Interest.

The site is designated as Green Belt, is a Comprehensive Project Area, forms part of a Green Chain (ENV-N.2.10) and is also designated as Publicly Accessible Open Space (ENV-N1).

It is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

A waterway forms the southern boundary of the site which also forms the Spelthorne Borough Boundary. The A316 forms the western boundary and to the south the site is bounded by railway lines.

The site is not located close to residential development which reduces the potential impact of operational development on residential amenity but such development will have a visual impact on local landscape character, the site being visible from the country way.

6.3.9 Site 15 Hatherop Recreation and Sports Ground

This 24 hectare site with an estimated yield of 1.4mt is within the ownership of Thames Water Utilities. It straddles the administrative boundary and is partly located within LB Richmond. Whilst this site offers the opportunity for joint working with an adjoining authority, LB Richmond do not address the issue of aggregate provision within their Local Development Framework.

The site is classified as Green Belt and is located within an area of Deficiency (ENV-N1). It also forms part of a Green chain (ENV-N2) lies adjacent to a Nature Conservation Area (ENV-N.2.2).

As the site is located within safeguarding zone of Heathrow International Airport (13 km), consultation with CAA would be required if the development exceeds the 45m height limit.

Previous applications for development on the site have been refused on the grounds that development would constitute a “highly visible intrusion into the Green Belt at a point where it is extremely narrow”. The site is located within a densely populated area and can only be accessed by residential roads.

In terms of amenity, the adverse impacts of extractive development would be substantial in this densely populated area.

As in the case of Site 10 Mayfield Farm any future development would need to be a joint working across the borough boundary.

6.3.10 Site 18 Osterley Park North

This is a large site of some 47 hectares with an estimated yield of 2.8 mt. It is currently in agricultural use and also forms part of Osterley Park to the north

of the M4. A small part of the site lies within the LB Ealing and is designated as community open space.

The site is subject to multiple designations within the local plan including Metropolitan Open Land (ENV-N.1.6), western part of site is of Local Nature Conservation Importance (Borough Grade 1) (ENV-N.2.2). The eastern half of site is designated as Historic Parks and Gardens (ENV-N.1.16) and Heritage Land (ENV-N.1.15). It also lies adjacent to the Osterley Park Conservation Area and is a National Trust site. The site is further forms part of a Green Chain (ENV-N.2.10) and is also designated as Publicly Accessible Open Space (ENV-N1).

There is residential development adjoining the site to the north west at Norwood Green. And it is considered that the impacts of operational development would primarily be visual and those associated traffic generation. Access to the site is primarily through residential areas however the site could, potentially, be access directly from the M4.

The site is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

The site is not located in a flood risk area.

6.3.11 Site 19 Osterley Park and west Osterley Park

This is a large, 92 hectare site with a potential yield of 5.5mt. The site is within public and private ownership and is currently in use as school playing fields and open land.

The site is subject to multiple designations within the local plan including Metropolitan Open Land (ENV-N.1.6), a large part of the site is of Local Nature Conservation Importance (Borough Grade 1) (ENV-N.2.2).The eastern half of site is designated as Historic Parks and Gardens (ENV-N.1.16) and Heritage Land (ENV-N.1.15). Eastern part of site lies within the Osterley Park Conservation Area and South Western part of site adjacent to Heston Village Conservation Area.

The site forms part of a Green Chain (ENV-N.2.10) and is also designated as Publicly Accessible Open Space (ENV-N1). In addition the site is in close proximity to Osterley House Scheduled Ancient Monument and the south west corner of the site is adjacent to an Archaeological Area.

Housing and a school adjoin the southern and western boundary including Heston Conservation Area. The potential impacts of extractive operational development are those of noise, dust, generation of additional traffic and visual impact on the landscape character of the area.

The site is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

6.3.12 Site 20 Osterley Park and Wyke Green

Site 20 covers some 38 hectares and it has a potential yield of 2.3 mt. It is within private ownership and currently in use as parkland and open space.

Site is subject to designations including Metropolitan Open Land (ENV-N.1.6), the north eastern part of site is of Local Nature Conservation Importance (Borough Grade 1) (ENV-N.2.2). All except part of Wyke Green is designated as Historic Parks and Gardens (ENV-N.1.16). The site is also designated as Heritage Land (ENV-N.1.15) and forms part of the Osterley Park Conservation Area and is in close proximity to Osterley House Scheduled Ancient Monument.

The site is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

The site is not known to be subject to flooding.

There is residential development adjoining the southern boundary and therefore there is potential for adverse impacts on residential amenity.

6.3.13 Site 21 Wyke Green Golf Course, sports ground and Trumpers Wood

This is a 38 hectare site, It is within private ownership and is currently in use as a golf course, sports club and ground and woodland. It has a potential yield of 2.3 mt.

Site designated as Metropolitan Open Land (ENV-N.1.6). Trumpers Wood and Wyke Green golf course north of the railway is a site of Local Nature Conservation Importance (Borough Grade 1) (ENV-N.2.2). The western part of site lies within Osterley Park Conservation Area. The site also adjoins Historic Parks and Gardens (ENV-N.1.16) and Heritage Land (ENV-N.1.15).

Further designations include Area of Publicly Accessible Open Space (ENV-N1); Green chain (ENV-N2);

The western edge of site is located in close proximity to an area at identified as being at risk from flooding (ENV-W1).

The site is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

Residential development at Oaklands Avenue adjoins the southern boundary of the site. Impacts on amenity would be those associated with noise, air quality, traffic generation and visual impact on the landscape character of the area.

6.3.14 Site 66 Land to the rear of Western International Market Southall

This site covers an area of 20 hectares and offers a potential yield of 1.2mt. It is within the ownership of LBH and is designated as Green Belt and a Comprehensive Project Area. It is identified on the adopted Unitary Development Plan Proposals Map as an Area of Search for minerals

development proposals (ENV 24). The site lies adjacent to the Western International Market which is designated as an Employment site.

The northern part of site is an Area of Publicly Accessible Open Space Deficiency (ENV-N1). The southern part of site is part of the Green chain (ENV-N2) and the south western corner of site is designated as Archaeological Priority Area (ENV-B3).

The site consists of a flat grassland area with a perimeter fence, inner ditch and an earth bank. The site is partly screened by small trees and hedges on three sides and has a woodland copse and pond to the south west of the site. Several drains cross the southern section of the site. It is classified as high grade agricultural land (ENV-N.1.14).

Planning history shows that there are no existing mineral permissions on site and it would appear that there have been no expressions of interest in the site from industry representatives. Planning permission for major development (01032/E/P25) on part of the site (0.7137ha) was approved on 08/03/2006 consisting of:

“New wholesale horticultural market with offices, food wholesale facilities, loading bays, storage areas, associated buildings, ancillary facilities and surface car parking. Provision of public weekend market. Development of an employment building (B1, B2, and B8 uses) with associated car parking, loading and access.”

The site is located within 13km of Heathrow International Airport and is therefore within the specified consultation zone. Consultation with CAA would be required if the development exceeds the 45m height limit.

Whilst the site is not adjacent to residential development, minerals development has the potential to adversely affect air quality, landscape character and create increased traffic generation with implications for the A316.

6.4 Local Policy Constraints and Opportunities

- 6.4.1 From the assessments carried out above it is clear that each site is subject to individual designations and therefore assessment at this stage of the process is needed to provide a simple analysis of defined planning constraints and opportunities. Table 4 below summarises the constraints and opportunities that have been identified at each site, using current local plan designations and policies where relevant.

Site No (LAWP report)	Name	GB /MOL	NC	ARCH	SIH	PAOS	CA	AGRIC	AEO	CVPK	PSZ	Significant Houses		Extension
												50m	250m	
6	Cranford Park East	Y		Pt	Y	Y	Y		Y	Y		Y		
8	South of Hatton	Y				Y			Y		Y		Y	
9	Rectory Farm	Y				Y		Y	Y		Y		Y	
10	Mayfield Farm	Y		Y		Y		Y	Y					
12	Hanworth Park and rectory meadow	Y	L	Pt		Y	Y		Y	Y		Y		
13	West of Thames Waterworks at Kempton	Y	M			Y		Y	Y					
14	South of Thames Water Works	Y	M			Y			Y					
15	Hatherop recreation and sports ground	Y					Adj		Y	pt				
18	Osterley Park North	Y	Pt L	Pt		Y	Y		Y	Y			Y	
19	Osterley Park and west Osterley Park	Y	Pt L	Pt	Y	Y	Adj			Y			Y	
20	Osterley Park and Wyke Green	Y	Y		Y	Y	Pt and Adj Pt			Y			Y	
21	Wyke Green Golf Course, sports Ground and Trumpers Wood	Y	Pt L	Adj	Y	Y	Pt					Y		
66	Rear of western international Market	Y	Adj	Pt		Y		Y	Y					

Table 4: Policy Constraints and Opportunities

Legend

General

Y – Yes N – No

adj – Adjacent to

GB /MOL

Is site in Green Belt or Metropolitan Open Land

NC

Is the site subject to Nature Conservation Designations. M / B / L – Site of Metropolitan / borough / local importance.

ARCH

Is the site in an Archaeological Priority Area. SAM – Scheduled Ancient Monument.

SIH

Is the site of Importance for Heritage.

PAOS

Is the site located on or adjacent to an area designated as Publicly Accessible Open Space.

CA

Is the site in a Conservation Area.

Agric

Is the site known as high grade Agricultural Land.

CVPK

Is the site in or adjacent to a public park.

PSZ

Is the site within a Public Safety Zone.

AEO

Is site within or adjacent to an Area of Environmental Opportunity

Signif Houses

Are there significant numbers of dwellings within 50-250m of the site.

Extension

Y – The site could be worked as an extension to an existing operation/processing plant already in place currently in place ((Y)) Site could be worked as an extension of one of the other sites listed.

(Y) as Y, but no processing plant

6.5 The Effect of Policy Constraints

6.5.1 Table 5 below shows the effects of limiting the search for sites by individual policy constraints. The figures provided in the last two columns are approximate to provide an indication of the effect of applying the constraints on the total area/yield of all potential sites in the Borough.

Constraint	Sites Affected	Area Remaining	Yield Remaining
Select only sites not in the Green Belt or MOL	None	N/A	N/a
Select only sites not affected by nature conservation constraints	6,8,9,10,15,66	170 hectares 35.2%	10.0mt 34.9%
Select only sites outside Archaeology constraint areas	8,9,13,14,15,20,21	213 hectares 44.1%	12.6mt 44.5%
Select only sites outside Conservation Areas	8,9,10,13,14,15,19,66	286 hectares 60.8%	16.9mt 55.9%
Select only sites that are not Grade 1 agricultural land	6,8,12,15,18,19,20,21	349 hectares 72.4%	20.8mt 72.7%
Select only sites outside park designations	8,9,10,13,14,21,66	208 hectares 43.1%	12.6mt 43%
Select only sites only sites outside Public Safety Zones	6,10,12,14,15,18,19,20,21,66	378 hectares 78.4%	20.1mt 70.2%
Select only sites that are not within 50m of substantial areas of housing	8,9,10,13,14,15,18,19,20,66	371 hectares 76.9%	21.5mt 75.1%
Select only sites that are not within 250m of substantial areas of housing	10,13,14,15,66	114 hectares 23.6%	6.7mt 23.4%
Select only sites that could be worked as extensions	n/a	0	0

Table 5: Summary of Impacts by Constraint

6.5.2 The purpose of this paper is to set out background information relating to minerals planning within LB Hounslow. This information will assist the Council in selection of sites with potential for minerals development which should be taken forward and identified in the Core Strategy. Whilst this is not a site selection exercise, it is clear from the table above that LB Hounslow has sufficient inferred resources to maintain the required contribution to provision of aggregates but this cannot be done without using sites within the Green Belt, sites that are currently in agricultural use or are already subject to restrictive designations. However, constraints should also be looked at in combination so as to shortlist those sites which have fewer constraints or constraints that can be offset through mitigation or a revision of local policy. Table 6 below provides comparison.

Table 6: Comparison of policies and constraints

Site	Objectives from MPS1						London Plan Policies			Hounslow Sustainability Appraisal				Other Considerations	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Safeguard to protect and conserve mineral resources	Efficient use and timely supply	Protection of Agricultural Land	National Designations	Minimising Impacts Working and Restoration	Opportunity for joint working	Safeguarding Mineral Resources	Environmental Standards	Minimise road transportation	Biodiversity	Agriculture	Sustainable Transportation	Afteruse	Proximity to Residential Development	Local Designations
6	✓	X	✓	n/a	n/a	n/a	✓	n/a		O	O	OOO	n/a	Yes	Green Belt Green Chain Conservation Area Archaeological Priority Area HIA Consultation Zone Flood Zone
8	✓	✓	✓	n/a	n/a	n/a	✓	n/a		O	✓	OO	n/a	Yes	Green Chain Publicly Accessible Open Space Comprehensive Project Area HIA Consultation Zone
9	✓	✓	✓	n/a	n/a	n/a	✓	n/a		O	✓	OO	n/a	Yes	Green Belt Green Chain Publicly Accessible Open Space Deficiency Comprehensive Project Area HIA Consultation Zone
10	✓	✓	✓	n/a	n/a	✓	✓	n/a		O	✓	OO	n/a	Yes	Green Belt Green Chain Publicly Accessible Open Space Deficiency Comprehensive Project Area HIA Consultation Zone

Site	Objectives from MPS1						London Plan Policies			Hounslow Sustainability Appraisal				Other Considerations	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Safeguard to protect and conserve mineral resources	Efficient use and timely supply	Protection of Agricultural Land	National Designations	Minimising Impacts Working and Restoration	Opportunity for joint working	Safeguarding Mineral Resources	Environmental Standards	Minimise road transportation	Biodiversity	Agriculture	Sustainable Transportation	Afteruse	Proximity to Residential Development	Local Designations
12	J	X	n/a	n/a	n/a	n/a	n/a	n/a		O	n/a	OOO	n/a	yes	Green Chain Publicly Accessible Open Space Heritage Land Grade 2 SLNCI Archaeological Priority Area Hanworth Park Conservation Area HIA Consultation Zone
13	J	J	J	O	n/a	n/a	J	n/a		O	J	OO	n/a	Yes	Minerals Area of Search Green Belt Green Chain Publicly Accessible Open Space Comprehensive Project Area
14	J	X	n/a	O	n/a	n/a	J	n/a		O	n/a	O	n/a	No	Nature Conservation Area Green Belt Green Chain Comprehensive Project Area Publicly Accessible Open space HIA Consultation Zone

Site	Objectives from MPS1						London Plan Policies			Hounslow Sustainability Appraisal				Other Considerations	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Safeguard to protect and conserve mineral resources	Efficient use and timely supply	Protection of Agricultural Land	National Designations	Minimising Impacts Working and Restoration	Opportunity for joint working	Safeguarding Mineral Resources	Environmental Standards	Minimise road transportation	Biodiversity	Agriculture	Sustainable Transportation	Afteruse	Proximity to Residential Development	Local Designations
15	✓	X		n/a	n/a	✓	✓	n/a		OO	n/a	OOO	n/a	Yes	Green Belt Green Belt Deficiency Green Chain HIA Consultation Zone
18	✓	X	✓	O	n/a	✓	✓	n/a		✓	n/a	OO	n/a	Yes	Metropolitan Open Land Local Nature Conservation Importance Green Chain Historic Parks and Gardens Heritage Land Osterley Park Conservation Area Publicly Accessible Open Space
19	✓	X	✓	n/a	n/a	n/a	✓	n/a		✓	n/a	OOO	n/a	Yes	Metropolitan Open land Local Nature Conservation Importance Historic Parks and Gardens Heritage Land Osterley Park Conservation Area Osterley House SAM HIA Consultation Zone

Site	Objectives from MPS1						London Plan Policies			Hounslow Sustainability Appraisal				Other Considerations	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Safeguard to protect and conserve mineral resources	Efficient use and timely supply	Protection of Agricultural Land	National Designations	Minimising Impacts Working and Restoration	Opportunity for joint working	Safeguarding Mineral Resources	Environmental Standards	Minimise road transportation	Biodiversity	Agriculture	Sustainable Transportation	Afteruse	Proximity to Residential Development	Local Designations
20	✓	X	n/a	n/a	n/a	n/a	✓	n/a		✓	n/a	OOO	n/a	Yes	Metropolitan Open Land Local Nature Conservation Historic Parks and Gardens Heritage Land Osterley Park Conservation Area Osterley Park SAM HIA Consultation Zone
21	✓	X	✓	n/a	n/a	n/a	✓	n/a		✓	✓	OOO	n/a	Yes	Metropolitan Open Land Local Nature Conservation Historic Parks and Gardens Heritage Land Osterley Park Conservation Area Publicly Accessible Open Space Green Chain Flood Risk HIA Consultation Zone

Site	Objectives from MPS1						London Plan Policies			Hounslow Sustainability Appraisal				Other Considerations	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Safeguard to protect and conserve mineral resources	Efficient use and timely supply	Protection of Agricultural Land	National Designations	Minimising Impacts Working and Restoration	Opportunity for joint working	Safeguarding Mineral Resources	Environmental Standards	Minimise road transportation	Biodiversity	Agriculture	Sustainable Transportation	Afteruse	Proximity to Residential Development	Local Designations
66	✓	✓	✓	n/a	n/a	n/a	✓	n/a		O	✓	OO	n/a	n/a	Minerals Area of Search Green Belt Comprehensive Project Area Adjacent to Employment site Publicly Accessible Open Space Green Chain Archaeological Priority Area

Col 1 – Assumes all sites with potential for minerals extraction are safeguarded against inappropriate development to protect the resource from sterilisation.

✓ - Indicates development on this site may accord with objectives and policies for minerals development

× -Indicates development on this site may conflict with objectives and policies for minerals development

n/a – Indicates not relevant to a particular site

Col 2 – Assumes efficient use of resources is balance of size, yield, location and constraints against other sites within the borough

✓ - Indicates development on this site may accord with objectives and policies for minerals development

× -Indicates development on this site may conflict with objectives and policies for minerals development

n/a – Indicates not relevant to a particular site

Col 3 – Assumes LBH will protect all land in agricultural use with greater weight attached to higher grade land.

✓ - Indicates development on this site may accord with objectives and policies for minerals development

× -Indicates development on this site may conflict with objectives and policies for minerals development

n/a – Indicates not relevant to a particular site

Col 4 – N/A site is not subject to or adjoins a nationally designated area as referred to in MPS1

○ Site adjoins a site with a national designation.

Col 5 – A development control and management concern therefore not relevant at this stage.

n/a – Indicates not relevant to a particular site

Col 7 – Assumes all sites with potential for minerals extraction are safeguarded against inappropriate development to protect the resource from sterilisation.

✓ - Indicates development on this site may accord with objectives and policies for minerals development

× -Indicates development on this site may conflict with objectives and policies for minerals development

n/a – Indicates not relevant to a particular site

Col 8 – A development control and management concern therefore not relevant at this stage.

n/a – Indicates not relevant to a particular site

Col 9 – ○ site has potential for means of transport other than road.

○○ site has no potential alternative transport.

Col 10 – ✓ Site is subject to a nature conservation designation

○ Site has no nature conservation designation.

○○ adjoins a nature conservation designation.

○○○ is surrounded by nature conservation designations

Col 11 – Assumes LBH will protect all land in agricultural use with greater weight attached to higher grade land.

n/a – Indicates not relevant to a particular site



Col 12 – O Site has option for transport by means other than road.
OO Site could have access to an A-class road.
OOOSite has access to minor roads only.

Col 13 – Not usually assessed at this stage as no definite after uses can be known.

6.6 Consultation Responses

- 6.6.1 In the early stages of preparation of this background paper comments were sought from a range of consultees. These are listed in Appendix D. Due to the extremely poor response rate a further round of consultation was initiated in September 2010. Four consultees responded.
- 6.6.2 LAWP expressed concern that LB Hounslow continues to rely on two sites designated as Minerals Areas of Search neither of which has received an expression of interest from industry for at least a decade.
- 6.6.3 BAA proposed their site at Mayfield Farm as a potential site for the extraction of Taplow gravels.
- 6.6.4 Surrey County Council recommended the site at Mayfield Farm / Homer Farm as an opportunity for cross boundary working. The site adjoins an area within the Surrey CC administrative area which already benefits from an extant planning permission for extraction and aggregate recycling facilities.
- 6.6.5 The owners of Rectory Farm requested that this site be identified as a potential minerals extraction site in the Core Strategy.

6.7 Minerals Safeguarding Areas and Preferred Areas

- 6.7.1 Safeguarding is a term used to ensure that mineral resources are not needlessly sterilized by other development.
- 6.7.2 In order to ensure a supply of minerals for future generations Mineral Policy Statement 1 states that Mineral Planning Authorities (MPA) should ensure that their minerals Development Frameworks define Mineral Safeguarding Areas (MSA) with an associated obligation on MPAs to show MSA's in Development Plan Documents.
- 6.7.3 MSAs should only be used to protect areas of known mineral resource which are either economically viable or hold conservation value. Guidance suggests that MSA's should be set out in the Core Strategy and supported by resource maps. Alongside this, development within MSA's should also be managed by development control policies. There are 4 steps in defining an MSA, namely:

- Use the best geological and mineral resource information
- Examine existing planning permissions
- Refine resources in discussion with the minerals industry
- Account for sterilization by proximal development

With this in mind MPAs should consider a 'joined up' approach with neighbouring authorities as mineral resources do not stop at administrative boundaries. Any policies used to safeguard mineral resources should, as a minimum, contain a commitment to define MSA's and criteria used to define them. This will provide the evidence base which will ensure that mineral resources are taken into account in the planning process.

- 6.7.4 The boundaries of MSAs in LB Hounslow should be defined in the Minerals section of the Core Strategy. In some instances the MSAs may apply to resource deposits beneath existing urban areas. This is so that the existence of the resource and the possibility for prior extraction is taken into account when proposals for large scale redevelopment are considered.
- 6.7.5 In all cases it should be noted that there is no presumption that planning permission for the winning and working of mineral resources will be granted in MSAs.
- 6.7.6 Having once identified MSAs, LB Hounslow will wish to direct the location and phasing of any future minerals development through the identification of Preferred Areas ie sites which the Council wishes to see developed before other sites are brought forward.

6.8 Final Assessment

- 6.8.1 All of the sites identified in Table 7 below are subject to sensitive designations, however in general it is considered that visual impact, biodiversity and conservation issues, along with issues of residential amenity should be given greater overall weight than issues relating to the Green Belt, protection of agricultural land, the after use of extraction sites and the conservation of minerals.
- 6.8.2 Whilst the location of mineral working will always be a sensitive issue, based on the views expressed above, Table 7 illustrates that of the 13 sites originally considered only five sites have the capability to provide the required aggregates and maintain a landbank which are as follows:
 - Site 8: Land south of Hatton
 - Site 9: Rectory Farm
 - Site 10: Mayfield Farm
 - Site 13: Land West of the Thames Waterworks at Kempton
 - Site 66: Land to the rear of Western International Market,

The five sites jointly offer a potential maximum yield of 9.5mt .

Site no	Site name	Estimated Yield
8	Land to south of Hatton	2.2mt
9	Rectory Farm	2.5mt
10	Mayfield Farm	2.2mt
13	Land to west of Thames Waterworks at Kempton	1.4mt
66	Land to rear of Western International Market	1.2mt
Total		9.5mt

Table 7: Potential sites

This assumes that the minerals industry will come forward with expressions of interest in any of these sites.

- 6.8.3 Of these five sites, Site 8 is the most sensitive being currently in use as playing field, allotments and open land. It has, however been previously used for minerals extraction. Without Site 8 the potential yield reduces to 7.3 mt
- 6.8.4 Sites 9 and 10 are subject to other designations which will require careful consideration but they offer high potential for future development. They have both been subject to industry interest and could provide Preferred Areas thus giving a clear steer to industry of the Council's intentions in relation to these sites. These two sites are capable of providing LB Hounslow's contribution to aggregate provision proposed by the amended London Plan for a period of 26 years.
- 6.8.5 Sites 13 and 66 already benefit from an Area of Search designation through the UDP. Although there have been no expressions of interest for some considerable time this designation should be retained to maintain the protection of the mineral resource and maintain a reservoir of sites with potential for future provision.

7 Development of Minerals Policies for the Local Development Framework

- 7.1.1 The Adopted UDP for LB Hounslow contains policies relating to minerals development which have been saved. These relate to the Council's commitment to provide its allotted share of the apportionment figure specified by the London Plan (ENV P3.1) and provision and maintenance of an appropriate landbank (ENV P3.2). In addition to this, current policies state that the Council will safeguard potential minerals development areas to protect them from sterilisation by other forms of development.
- 7.1.2 Given the existing land use designations within the Borough and the Council's commitment to protect, conserve and where possible enhance the environment, the potential for LB Hounslow to make an increased contribution to meet its share of the London apportionment figure appears to be limited to five sites.
- 7.1.3 The Council should retain the policy relating to safeguarding minerals against sterilisation through inappropriate development. Although the five sites listed below are protected by other designations, they should be identified as having the greatest potential to meet LB Hounslow's mineral requirements:
- Land south of Hatton;
 - Rectory Farm;
 - Mayfield Farm;
 - Land west of Thames Waterworks at Kempton; and
 - Land to rear of International Western Market

This will serve the purpose of identifying a wider range of sites which have the potential for future development at the same time as ensuring that they are protected. The Council will also need to consider in detail the promotion of use of alternative aggregates.

- 7.1.4 Existing policy ENV-P.3.4 considers the distribution of aggregates and the criteria to be used to ensure that aggregates recycling facilities are appropriately located and do not conflict with the Council's aims and objectives in relation to environmental protection and improvement. This approach should also be retained.
- 7.1.5 Recycled aggregates are often considered to be a waste issue and as such are dealt with as part of Waste Development Plan Documents. However the apportionment figures make it clear that there is an expectation that a percentage of the total provision by each area should be made up of recycled and/ or marine dredged aggregates. However, it should be noted that increased production of recycled aggregates does not reduce the amount of primary aggregate that LB Hounslow will be expected to produce to meet the apportionment figure. As already discussed above, there is currently one active permitted aggregate recycling site within LB Hounslow. This is located at Transport Avenue and is operated by Day Aggregates. The Annual Monitoring Report 2008/2009 states that this site produced 269,009 tonnes of recycled aggregates during the financial year which represents an increase of 1.6% on the previous financial year. Policies

relating to recycled aggregates and appropriate facilities for the processing and transportation by either road, rail, or by water should therefore be included in the Core Strategy. Consideration should also be given to safeguarding those wharves and railheads which are not currently in use for minerals transportation but have the potential to be brought into service in the future.

8 The Movement of Minerals to and within LB Hounslow

8.1 Overview

- 8.1.1 The movement of minerals, or more specifically aggregates, from the source of the arisings to the place of use, relies heavily on road freight transport and to a lesser extent, on rail and waterways. There is increasing pressure at national, regional and local level to reduce congestion and CO2 emissions. Initially this will depend on a shift from dependence from road transport to alternative methods where possible.
- 8.1.2 Freight depot facilities, which are utilised for the unloading and onward distribution of aggregates, are vital in sustaining the adequate supply of aggregates imported to the region. According to the London Aggregates Monitoring Report 2000-2007 (2009), London continues to be heavily dependent on imported marine aggregate supplies being maintained to meet its aggregate needs. Sales of crushed rock from rail depots and wharves in London in 2007 showed a decrease since 2006.⁶ The region does however continue to be heavily dependent on supplies of imported crushed rock being maintained to meet its aggregate requirements.
- 8.1.3 The Mayor's Transport Strategy 2010 proposes to remove between 110 and 176 million lorry miles from the UK's roads each year.⁷ Although the strategy acknowledges that freight is necessary for economic reasons, it also highlights the negative impacts on the environment and the urgent need to reduce those impacts. In general, it is considered that environmental impacts are much more limited in the case of rail freight, there are fewer accidents associated with this method of transportation and lower emissions of greenhouse and other harmful gases. Above all, rail transportation alleviates road congestion which is a problem of national importance. The strategy therefore encourages rail as a preferred method of freight transportation.
- 8.1.4 This document outlines the existing transport situation regarding aggregates transportation to and from West London and the anticipated 'way forward', as expressed through policy and guidance.

8.2 Freight Distribution

- 8.2.1 The London Plan also recognises the importance of freight within a wider transport strategy, both in terms of supporting significant distribution within the sub-region, promoting the efficient servicing of businesses and moreover attempting to reduce the environmental impacts of road based distribution. In general, rail is favoured as the most efficient way of transporting minerals, although, across short distances it does prove uneconomical compared with transporting material by road.
- 8.2.2 Trunk road and National Rail networks will require improvements to increase the efficiency of distribution and to support economic development. This will also discourage the use of unsuitable roads by heavy freight. Regarding

⁶ London Aggregates Monitoring Report 2000-2007, London Aggregates Working Party, November 2007, Accessed from: http://www.london.gov.uk/mayor/planning/lawp/docs/lawp_monitoring2007.pdf

⁷ The Mayor of London Rail Freight Strategy, Transport for London, August 2007, Accessed from: <http://www.tfl.gov.uk/microsites/freight/documents/rail-freight-strategy-aug-2007.pdf>

freight transport by water, wharf safeguarding is an integral component of supporting this sustainable method of transport, using designated routes such as the Blue Ribbon Network.

8.3 Roads

- 8.3.1 The road network of West London is served by the key strategic radial routes the M4, A40 and A4. As outlined in the Mayor's Land for Transport Functions SPG (2007), boroughs should be aware of the current and future requirement for strategic highways maintenance depots, and appropriately located depots for the transportation of aggregates.⁸

8.4 Rail

- 8.4.1 Section B of the Mayor's Land for Transport Functions SPG (2007) states that sites close to rail and canal networks or existing rail terminals and wharves are particularly desirable, therefore protection of land at canals for freight transfer purposes, where appropriate, should be considered by relevant authorities.
- 8.4.2 The London Plan Industrial Capacity SPG (2008) states that, "In line with transport policy set out in the London Plan, the Mayor's Transport Strategy and the London Freight Plan, the SPG encourages movement of goods by rail or water, including the use of inter-modal facilities and supports the sustainable movement of waste, and products arising from resource recovery, and the use of modes other than road transport when practicable."⁹

8.5 Existing Railheads in Hounslow

- 8.5.1 The LAWP Monitoring Report of 2007 identified 1 railhead within LB Hounslow. This is located at Brentford together with an aggregates recycling plant and is operated by Day Aggregates.

8.6 Waterways

- 8.6.1 The Blue Ribbon Network in West London includes a significant stretch of the River Thames, River Brent, River Crane, River Colne system and extensive stretches of the Grand Union Canal as well as the Welsh Harp reservoir. There are currently three wharves safeguarded for cargo handling in West London (as part of a London safeguarding strategy) and the canal system in West London offers great potential for the transport of bulk material such as aggregates, particularly where it passes through industrial areas such as Park Royal.
- 8.6.2 The Mayor's Land for Transport Functions SPG (2007) expands this approach in Policy 4C.15 'Safeguarded wharves on the Blue Ribbon Network'. This seeks to ensure that wharves are safeguarded for cargo-

⁸ Land for Transport Functions: The London Plan Supplementary Planning Guidance, Mayor of London, March 2007, Accessed from: <http://www.london.gov.uk/mayor/strategies/sds/docs/spg-transport-land-final.pdf>

⁹ Industrial Capacity: The London Plan (Consolidated with alterations since 2004) Supplementary Planning Guidance, Mayor of London, March 2008, Accessed from: <http://www.london.gov.uk/mayor/strategies/sds/docs/spg-industrial-capacity-2007.pdf>

handling uses, such as inter-port or transshipment movements and freight-related purposes.

8.6.3 Where appropriate, temporary uses of vacant safeguarded wharves can be considered, however these temporary uses should only be allowed where they do not preclude the wharf being re-used for cargo-handling uses in the future. Development next to or opposite safeguarded wharves should be designed to minimise the potential for conflicts of use and disturbance and most importantly redevelopment of safeguarded wharves should only be accepted if the wharf is no longer viable or capable of being made viable for cargo-handling.'

8.6.4 The London Plan Draft Replacement for Consultation (2009) contains Policy 5.18 regarding the encouragement of new construction, excavation and demolition (CD&E) waste management facilities at existing waste sites, including safeguarded wharves and supported by mineral extraction sites for CE&D recycling. It states that transportation of material should be by rail and water is preferred where possible.

8.7 Challenges and Opportunities

8.7.1 It is clear that West London has relatively good connections with the adjacent regions outside of London, both by road and rail.

8.7.2 The level of growth for West London will need to be accommodated by a combination of improvements to existing networks and the provision of new infrastructure. Measures to reduce the transportation of minerals by road should also be encouraged where practicable. In order to achieve this, transport accessibility and spare capacity will play a pivotal role in securing sustainable long term development.

8.8 Future Development

8.8.1 The West London Line provides key route for rail freight.

8.8.2 In addition, a number of initiatives on the National Rail network are currently being developed, including infrastructure and a new station which now serves Heathrow Terminal 5.

8.9 Conclusions

8.9.1 LB Hounslow is well connected by road and also has token rail freight (Day Aggregates site at Brentford). The MPA Assessment undertaken in 2003 indicated that the prevalent view of Highways Officers of the component authorities was at that time that highways issues should not be regarded as a material factor in assessing the acceptability of individual sites. It was considered that concerns relating to individual sites could be considered in more detail when attention is being focussed on a more narrow range of possibilities. However, with the current focus on reduction in CO² and sustainable transport any future policy relating to minerals development should give due consideration to methods of mineral transportation.

9 Potential Future Development at Heathrow Airport

- 9.1.1 In November 2007 the Department of Transport published a consultation document entitled “Adding capacity at Heathrow Airport”. This consultation document was produced in the context of the Government White Paper, The Future of Air Transport (2003) which set out an economic case for further development of the airport including the development of a third runway with associated facilities. This recognised that whilst there were strong economic arguments in favour of further development at Heathrow these must be weighed against serious environmental disadvantages. The White Paper set stringent air quality targets which will need to be met before government could support any proposal for further development.
- 9.1.2 The consultation document included indicative proposals for a third runway to the north of the present airport and for a new sixth passenger terminal to the south of the new runway. This together with new supporting facilities and aprons would provide a completely new airport boundary which will include a significant proportion of the minerals sites within the London Borough of Hillingdon which is immediately adjacent to LB Hounslow. Whilst mineral extraction could continue to take place within this boundary it is by no means certain at this time that this will remain the case.
- 9.1.3 Following a change of Government in May 2010, BAA announced (24th May 2010) that they would be withdrawing all planning applications for the development of further runways and terminals at Heathrow as these proposals were no longer in accord with Government advice.

10.1 Introduction

10.1.1 The London Borough of Hounslow is in the process of producing its Core Strategy DPD, and has created a draft Minerals Topic Paper as part of the evidence base for this plan. This SA review report is based on the research done in creating the Minerals Topic Paper, and aims to assist the Council in progressing with the Sustainability Appraisal (SA) of their Core Strategy.

10.1.2 Based on an assessment of underlying geology, the Quarry Products Association (QPA) (now Mineral Products Association (MPA)) Survey (2004) identified some 14 sites in Hounslow with the potential to make a significant contribution to the provision of sand and gravel for West London. Only one site was active at the time of the survey, and resources at this site have now been exhausted and so were not included in the Minerals Topic Paper.

10.1.3 In order to fully assess each site and to identify which sites (if any) would be suitable for extraction over the plan period, a desk study was undertaken. The aim of this study was to assist the decision-making process as to which sites should be taken forward into the Core Strategy. This information will assist the Council in selection of sites with potential for minerals development which should be taken forward and identified in the Core Strategy.

10.1.4 In general, the Minerals Topic Paper has considered that visual impact, biodiversity / nature conservation and residential amenity should be given greater overall weight than issues relating to the Green Belt, protection of agricultural land, the after use of extraction sites and the conservation of minerals.

10.1.5 Of the 13 sites originally considered, only five sites have the capability to provide the required aggregates and maintain a landbank of minerals. These sites are:

- Site 8: Land south of Hatton;
- Site 9: Rectory Farm;
- Site 10: Mayfield Farm;
- Site 13: Land West of the Thames Waterworks at Kempton; and
- Site 66: Land to the rear of Western International Market.

10.1.6 During the SA process, it will be important to consider the issues already identified for each of these sites, but also some issues which are still to be addressed. The SA must identify the potential impacts that these could have under each of the SA topics and objectives. Table 8, below, sets out the SA Objectives of the Hounslow Core Strategy Scoping Report, the identified issues for each of the five potential sites, and further issues to be addressed.

10.2 Summary of Issues

Table 8: Summary of Site Issues

SA Objectives	Site	Identified Issues	Further Issues to be Addressed
1. To maintain and improve the health of the population	Site 8: Land south of Hatton	Gas pipeline crosses site and the river on its southern boundary. Within safeguarding zone of Heathrow Airport (1km to NW).	This topic should include a cumulative impact assessment of all other topics related to health and well-being. This could be done as a separate Health Impact Assessment which feeds back into the SA. Please therefore also refer to other topics, e.g. as regards accessibility and recreation issues. Consider existing health issues of the area, including accessibility, air quality, noise, road accidents and fly-tipping. Consider neighbouring land uses for potential sensitive receptors, including children, the elderly and the infirm.
	Site 9: Rectory Farm	Within safeguarding zone of Heathrow Airport (2.5km from northern boundary of airport).	
	Site 10: Mayfield Farm	Within safeguarding zone of Heathrow Airport (within 1km).	
	Site 13: Land West of the Thames Waterworks at Kempton	Constraints include the route of the Staines Reservoir Aqueduct on the southern boundary and the waterway along eastern boundary. Site is within safeguarding zone of Heathrow Airport (13km away).	
	Site 66: Land to the rear of Western International Market.	Within 13km of Heathrow Airport so in safeguarding zone. Site is not adjacent to residential development.	
2. To reduce crime and the fear of crime	All sites	None – this topic is not significantly relevant, and should be scoped out of future assessment.	
3. To ensure that everyone has the opportunity to live in a decent, sustainably constructed and affordable home	All sites	No particular site-level issues. Cumulatively, the provision of minerals and the issue of possible targets for the amount extracted annually should be considered in tandem with the local and regional demand for minerals. This should include the demand from house-builders. If minerals from Hounslow do not make a significant difference in meeting demand, this topic should be scoped out of future assessment. Otherwise, it should be assessed at a policy level (not site-by-site).	
4. To improve opportunities for developing community	Site 8: Land south of Hatton	Site is in the Green Belt. Comprehensive Project Area (areas of green belt which would benefit from restoration, landscape, public access, recreation,	Location in the Green Belt or adjacent to other land uses should be considered against the concept of 'sense of place' to ensure that neighbourhoods are not severed from

SA Objectives	Site	Identified Issues	Further Issues to be Addressed
cohesion and increase understanding and learning between communities		nature conservation implementation / enhancement).	one another or key services and facilities, but simultaneously that there is not the potential for losing the service that Green Belt provides as a 'buffer' between places.
	Site 9: Rectory Farm	Green belt site and part of Green Chain. Proposed Comprehensive Project Area.	
	Site 10: Mayfield Farm	Site is Green Belt land in productive agricultural use, and also a Comprehensive Project Area. Site is within an area of Publically Accessible Open Space Deficiency.	
	Site 13: Land West of the Thames Waterworks at Kempton	Site is within the Green Belt, a Comprehensive Project Area and forms part of the Green Chain. Includes area designated as Publically Accessible Open Space.	
	Site 66: Land to the rear of Western International Market.	Designated as Green Belt and Comprehensive Project Area. The southern part of site is part of the Green chain.	
5. To ensure equality of opportunity through fair and equal access to services (health care, education, skills training, employment, shopping, transport), culture, leisure and recreation for all residents	Site 8: Land south of Hatton	Site is currently in use as school playing fields, allotments and open land. Designated as Publically Accessible Space.	The current barriers to housing and services as determined by Indices of Multiple Deprivation (IMD). Location of any identified Public Rights of Way (PRoW) and cycling route such as National Cycle Network (NCN) routes in the vicinity of the sites. Identify the traffic levels on local roads and % of annual change in daytime weekday traffic. This will allow for the significance of impacts resulting from minerals transport on the roads to be identified.
	Site 9: Rectory Farm	Within area of Publically Accessible Space Deficiency.	
	Site 10: Mayfield Farm	The site is located within an area of Publicly Accessible Open Space Deficiency.	
	Site 13: Land West of the Thames Waterworks at Kempton	Designated as Publicly Accessible Open Space.	
	Site 66: Land to the rear of Western International Market.	The northern part of site is an Area of Publicly Accessible Open Space Deficiency.	
6. To minimise the need to travel, increase the use of sustainable transport modes (walking, cycling, and	Site 8: Land south of Hatton	None identified.	Identify any walking and cycling routes in proximity to the sites which could be affected by the siting of mineral works. Also identify public transport routes close to the site as these could be affected by minerals traffic.
	Site 9: Rectory Farm		

SA Objectives	Site	Identified Issues	Further Issues to be Addressed
public transport)	Site 10: Mayfield Farm		
	Site 13: Land West of the Thames Waterworks at Kempton	Increased traffic could impact on vehicles on Feltham Hill Road.	
	Site 66: Land to the rear of Western International Market.	Increased traffic generation could have implications for the A316.	
7. To ensure the efficient use of resources to reduce negative contributions to and mitigate impacts of climate change	Site 8: Land south of Hatton	Mineral extraction has previously taken place over the northern areas of this 37 hectare site and was completed in 1984.	<p>Where waterways are not identified, identify any waterways in proximity to the sites to establish potential impacts as a result of de-watering which could cause runoff into the waterbodies.</p> <p>Identify groundwater conditions including identification of Special Protection Zones (SPZs). There is the potential that these could be affected by potential for seepage of metals into the groundwater.</p> <p>Water resources could also be affected by effluent used in the mining process. So any current issues with water supply need to be considered.</p>
	Site 9: Rectory Farm	Site is in agricultural use.	
	Site 10: Mayfield Farm	Site is within productive agricultural use.	
	Site 13: Land West of the Thames Waterworks at Kempton	Site is within an area identified as an Area of Search for Minerals.	
	Site 66: Land to the rear of Western International Market.	High grade agricultural land with some drains which cross the site.	
8. To improve the quality of where people live through sustainable regeneration that makes use of existing assets	Site 8: Land south of Hatton	Housing is located to the north and beyond the Duke of Northumberland river which forms the southern boundary; a school is located to the west.	<p>Assess the local population's quality of life including levels of deprivation in the areas surrounding the sites.</p> <p>Identify existing assets in each area.</p>
	Site 9: Rectory Farm	Sensitive residential uses to the north, east and southern boundaries.	
	Site 10: Mayfield Farm	Site has adjacent residential development to the east.	
	Site 13: Land West of the Thames Waterworks at Kempton	Site is bounded at the western corner by residential properties which are located within the administrative area of the Borough of Spelthorne.	

SA Objectives	Site	Identified Issues	Further Issues to be Addressed
9. To maintain and enhance biodiversity (areas of nature conservation interest, wildlife and habitats)	Site 8: Land south of Hatton	Identified as a Comprehensive Project Area (i.e. areas of Green Belt which would benefit from restoration, landscape, public access, recreation, nature conservation implementation/enhancement).	Identify Local Biodiversity Action Plan (LBAP) targets including any priority species and habitats present in the areas in and around the site. Qualifying features of Kempton Park East Reservoir SPA, Ramsar and SSSI should be identified.
	Site 9: Rectory Farm		
	Site 10: Mayfield Farm		
	Site 13: Land West of the Thames Waterworks at Kempton	Is located close to Kempton Park East Reservoir which is a Special Protection Area, RAMSAR site and a Site of Special Scientific Interest.	
	Site 66: Land to the rear of Western International Market.	Identified as a Comprehensive Project Area (i.e. areas of Green Belt which would benefit from restoration, landscape, public access, recreation, nature conservation implementation/enhancement). The site is partly screened by small trees and hedges on three sides and has a woodland copse and pond to the south west of the site.	
10. To improve air quality in the borough.	All sites.	All sites during operation have the potential to increase generation of dust. In addition, increased traffic movements to and from the site can increase air pollution. This will be more significant where any Air Quality Management Areas (AQMAs) are present in the area.	Further determine the potential impacts on air quality through assessing the current levels of air quality and if any Air Quality Management Areas (AQMAs).
11. To reduce noise pollution	All sites	Potential for all sites to increase generation of noise through operation and traffic movements to and from the site.	Consider the current road noise levels using the Defra Noise Mapping system. This will help to establish the potential impacts that minerals traffic could have on the area. Consider the potential for future Noise Action Areas in responding to issues.
12. To promote high quality urban design and the use of sustainable construction	All sites	None – this topic is not significantly relevant at the minerals planning level, and should be scoped out of future assessment.	
13. To conserve and enhance the quality	Site 8: Land south of Hatton	Potential adverse visual impacts in short to medium term.	Identify the number of listed buildings in the vicinity of the sites and number of buildings at risk as these could be

SA Objectives	Site	Identified Issues	Further Issues to be Addressed
and character of the borough's landscape and townscape, including historic environments	Site 9: Rectory Farm	n/a	affected by traffic stemming from the minerals sites.
	Site 10: Mayfield Farm	Part of Green Chain, an Archaeological Priority Area and two Scheduled Monuments.	
	Site 13: Land West of the Thames Waterworks at Kempton	n/a	
	Site 66: Land to the rear of Western International Market.	The south western corner of site is designated as Archaeological Priority Area.	
14. To provide opportunities and benefits to the local economy, especially in town centres	All sites	None identified.	Unemployment rates in the area need to be considered along with the level of skills and % of economically active people. There may be benefits to the economy resulting from mining of minerals due to the creation of new jobs.
15. To maintain and enhance the importance of Hounslow as an employment centre in the West – London and London-wide context through attracting new economic development that provides a range of jobs in appropriate locations	Sites 8, 9 & 10	None identified.	Unemployment rates in the area need to be considered along with the level of skills and % of economically active people. There may be benefits to the economy resulting from mining of minerals due to the creation of new jobs.
	Site 66: Land to the rear of Western International Market.	The site lies adjacent to the Western International Market which is designated as an Employment site.	

10.3 Conclusion

- 10.3.1 Table 8 above has identified details of the five proposed sites and issues which need to be addressed when conducting the SA of the Core Strategy DPD. Information gathering undertaken to address the identified issues will help to inform the SA including the assessment process.
- 10.3.2 During the review of SA issues, it has become clear that there are some gaps in the SA framework which should be addressed. It is considered that water quality, groundwater and soils are not covered adequately within the SA objectives. For water, it is particularly relevant since the Water Framework Directive has been further implemented since the Scoping Report was developed. There are issues besides climate change which relate to soils and water and so it is felt that they cannot be adequately covered under the 'climate change' topic. Consideration should be given to developing further SA objectives to cover these topics.

Appendix A Planning Policies

Policy Numbers	Policy Name	Details
Surrey Minerals Local Plan (1993) (Saved policies)		
22		Proposals for extraction of Fullers' Earth will be considered on their merits in the light of the need for the mineral and the environmental impact of working. Identified reserves will be safeguarded against adverse development
24		Permission will not normally be given for the extraction of peat as the need for its extraction is unlikely to outweigh the environmental impact of the development
25		The County Council will support the establishment of rail aggregate depots in appropriate locations. Development of rail aggregate depots will be permitted only where the County Council are satisfied that the depot is needed and that the proposed facilities are acceptable on environmental and traffic grounds.
26		There will be a presumption against the development of rail aggregate depots in the Metropolitan Green Belt. If it can be demonstrated that there is an overriding need sufficient to justify the establishment of a depot in the Green Belt, the Authority will seek to limit the development to rail unloading and related distribution facilities and will be opposed to the siting of ancillary developments. Concrete batching plant may be permissible but other development likely to increase traffic from the site or require substantial structure will not be acceptable.
Surrey Minerals and Waste Local Development Framework: Minerals Plan (preferred option) Incorporating Proposed Amendments to the Core Strategy (April 2008)		
MC1	Reducing Demand for Minerals	Local planning authorities should include in their development frameworks policies promoting sustainable design, construction and demolition, and new development should incorporate appropriate measures to reduce the demand for minerals.
MC2	Recycling and Secondary Aggregates	Local planning authorities should require, as part of policies on sustainable construction, the recycling of construction and demolition waste at source wherever practicable. Production of recycled and secondary aggregates will be encouraged. The Recycled and Secondary Aggregates DPD will make proposals, in line with regional requirements, for existing and new facilities capable of producing at least 0.8 million tonnes of recycled and secondary aggregates by 2016 and examine the potential for further increase to 2020.
MC3	Safeguarding	The minerals plan will include policies to ensure mineral reserves and infrastructure of current or future importance, are safeguarded from other development.
MC4	Aggregate Minerals Supply	The minerals plan will include a strategy to meet the need for soft sand and concreting aggregate, which takes into account adverse impacts on communities and the environment. The need for aggregate minerals will be determined with regard to the apportionment for Surrey identified in the regional spatial strategy. The Mineral Planning Authority will also seek to maintain a landbank of seven years for aggregates subject to detailed assessment of proposals. The requirement for future aggregate supply will be adjusted in line with any changes to the sub-regional apportionment. Significant changes to the requirement will be addressed by a review of proposals within the Primary Aggregates DPD.

Policy Numbers	Policy Name	Details
MCXX	Silica Sand	Planning permission will be granted for the extraction of silica sand from land within the preferred area known as Pendell Farm, Bletchingley. The applicant should demonstrate that the requirement for silica sand for industrial uses outweighs any potential harm to the Surrey Hills AONB. Development should be phased to enable a suitable landbank of permitted reserves to be maintained. An area of search for possible development beyond the plan period is identified at Chilmead Farm, Nutfield Marsh. Proposals for the extraction of silica sand from land outside the preferred area will be considered against the policies in this plan. The applicant will need to demonstrate that working of such land meets a demand that cannot be satisfied from alternative sources, including the preferred area or the area of search.
MCXX	Brick Clay	Proposals for extensions to clay extraction within the areas of search associated with the existing brickworks will be supported when it can be shown that the material is required for the maintenance of adequate landbanks to sustain production and the environmental impact of operations is acceptable. Applications for brickworks and associated clay extraction at new sites outside the areas of search will be assessed against the policies of the plan with particular regard to the potential impacts on transport, biodiversity and the local community.
MCXX	Conventional Oil and Gas Development	Exploration for oil and gas will be permitted where it can be demonstrated that suitable geological conditions exist and any potential impacts are suitably mitigated. Proposals for the appraisal or production of oil and gas should give particular attention to the location of wellheads as appraisal may lead to production. Drilling and other surface level development, particularly where this lies within the Surrey Hills AONB, should be confined to sites where any associated environmental impact can be adequately mitigated and where impacts on the local community or on wider community interests such as recreation are minimised. The need for directional drilling should be considered to alleviate unacceptable harm to the AONB or other interests, and the location of surface handling facilities remote from wellheads should also be explored.
MCXX	Other Non-Aggregate Minerals Supply	Permission will not be given for the extraction of chalk, fuller's earth or peat as the need for extraction is unlikely to outweigh the environmental impact of the development. There will, however, be a need to ensure that fuller's earth resources are not sterilised by other development. In exceptional circumstances, small scale extraction of building stone, including from sites within the Surrey Hills AONB, may be accepted where the need can be justified and no alternative resource, including temporary use of former quarries, can be identified. Building stone extracted in conjunction with soft sand should be safeguarded for use in building repair and conservation.
MCXX	Rail Aggregate Depots	The rail aggregate depots at Salfords and Woking will be safeguarded. Proposals for new depots, including any replacement for the existing depots, will be considered against the relevant policies of the plan. In green belt locations, proposals will need to demonstrate that development is to meet a proven need arising within Surrey and that alternative locations outside the Green Belt are not possible.
MC5	Non-Aggregate Minerals	Proposals will be made within the Primary Aggregates DPD for soft sand and concreting aggregate sufficient to meet the apportionment for Surrey in a proven need arising within Surrey and that alternative locations outside the green belt are not possible.

Policy Numbers	Policy Name	Details
MC8	Transportation	The minerals plan will include policies and identify land that will minimise the adverse impacts from the movement of minerals, and encourage non road-based methods of transport.
MC9	Restoration	The restoration and future use of sites will be a primary consideration in the planning of minerals. Restoration will be addressed at an early stage in the planning process, and the progressive restoration and the sustainable management of sites should form an integral part of the mineral extraction process.
Surrey Primary Aggregates Development Plan Document Preferred Option Consultation (2006)		
MA1	Aggregate Provision	Provision will be made for the supply of 34.06 million tonnes of primary aggregates, comprising 21.1 million tonnes of concreting aggregate and 13.0 million tonnes of soft sand between 2004 to 2016, having regard to the level of availability of permitted reserves at that time, and the need to maintain continuity of supply.
MA4	Aggregate Production	A sufficient supply of land will be maintained to enable production of concreting aggregate at a maximum rate of 1.62 million tonnes per annum, and production of soft sand at a maximum rate of 1.00 million tonnes per annum.
MA6	Aggregate Extraction Outside Preferred Areas	There will be a presumption against granting planning permission for the extraction of concreting aggregate and soft sand from land outside the preferred areas. Planning permission will be granted in exceptional circumstances, if it can be demonstrated that working of such land would be equally acceptable to working within a preferred area, and <ul style="list-style-type: none"> a) the identified preferred areas cannot maintain an adequate landbank; or b) the proposal is for a limited small scale extension to an existing site; or c) the mineral would be sterilised if planning permission were not granted; or d) the proposal is for a borrow pit.
London Borough of Ealing Unitary Development Plan (2004) (saved policies)		
2.3	Land – Mineral Development	The Council will consider planning applications for development associated with the extraction of minerals and the disposal of mineral waste, in the light of government guidance and local evaluation of the need for mineral resources, and also in terms of environmental protection, and the after-use of the sites. The Council will not permit proposals that would have materially adverse impacts on the local environment; including landscape, nature conservation, ground and surface water, archaeological interests and the effects of operations and traffic on residential amenity.

Policy Numbers	Policy Name	Details
2.4	Land – Mineral Aggregates Distribution	<p>The Council seeks the increased use of rail and barge borne freight, particularly aggregates. Applications for the sorting and storage of aggregates for local re-use, intensified use of existing rail depots at Horn Lane, Park Royal Road and Willesden Rail Depot, or establishment of similar new facilities, will be assessed having regard to the proximity principle for minerals and other bulk products, and the following requirements:</p> <ol style="list-style-type: none"> 1. The development would increase the proportion of recycled aggregates, particularly those available locally; 2. The development would increase the proportion of recycled aggregates transported by rail or barge; 3. The development would not substitute for rail - based or other sustainable facilities elsewhere in London, and thereby give rise to longer road journeys for the materials from the railhead or other facility to their ultimate destination; and 4. Environmental and transport impacts are acceptable in relation to the other policies in this Plan.
9.10	Freight	<p>The Council will encourage:</p> <ol style="list-style-type: none"> 1. Warehousing development in Major Employment Locations, provided that the environmental costs of heavy goods traffic do not outweigh the benefits of employment generated; 2. The management of goods vehicle movements by restricting the permitted hours of servicing and operation where this is appropriate; 3. The use of non-road freight transport such as rail and canal in industrial and warehousing development; <p>The development of freight partnerships for new developments in Major Employment Locations.</p>
London Borough of Ealing Council Local Development Framework: Core Strategy (Issues and Options) (2007)		
Overall Option		Provide sites for minerals aggregates and facilitate the use of building materials
London Borough of Hammersmith and Fulham Borough Unitary Development Plan Review (2003) (Saved Policies)		
EN40	The Grand Union Canal	<p>The Grand Union Canal is a Nature Conservation Area of Metropolitan-wide importance. The council will encourage improvements to the environment and character of the Grand Union Canal and supports British Waterways' objective to achieve improvements in water quality and to minimise pollution. It will seek to improve access to the canal to encourage use for transport and for recreational purposes. The potential to establish a long distance canalside walk in support of initiatives by British Waterways Board and other west London councils will be safeguarded. In addition, the council recognises the potential benefits which could arise from a canal/rail link in the area currently being explored by British Waterways.</p>
London Borough of Hammersmith and Fulham Borough Local Development Framework: Core Strategy (preferred options) (2007)		
Preferred Option 9		To enhance and to increase access to the waterways in the borough, namely the River Thames and the Grand Union Canal by maintaining policy coverage that is consistent with the London Plan and, in relation to the Thames, encourages development that would permit the continuation of the three safeguarded wharves, namely Swedish Wharf, Comleys Wharf and Hurlingham Wharf (see also Site

Policy Numbers	Policy Name	Details
		Allocations DPD), whilst encouraging the development of adjoining vacant and underused land.
Preferred Option 12		To plan for improved transportation and accessibility in the borough by identifying rivers and canals as part of a sustainable transport plan for passengers and the movement of freight.
London Borough of Hillingdon Borough Unitary Development Plan (1998) (Saved Policies)		
BE32	Development Proposals Adjacent to or Affecting the Grand Union Canal	<p>When considering proposals for development adjacent to or having a visual effect on the grand union canal, the local planning Authority will seek to ensure that every opportunity is taken to:</p> <ol style="list-style-type: none"> 1 secure and where possible enhance the role of the canal and its immediate surrounds as a wildlife corridor; 2 secure environmental improvements appropriate to waterside Areas; 3 ensure that buildings are of a design which complements the visual qualities of the canal in terms of scale, bulk, layout and materials; 4 conserve buildings or features associated with the working life of the canal; 5 create new public access to the waterside and towpath linked to the footpath network in the surrounding area; 6 enhance or create views through and from the development, from and towards the watercourse; and 7 retain existing leisure moorings unless alternative provision is made in suitable locations.
MIN1	Safeguarding of Sand and Gravel Reserves	Wherever sand and gravel reserves are known to exist the mineral planning authority will, where practicable, safeguard those resources from sterilisation by surface development. The identification of such reserves will, in itself, create no presumption that proposals for mineral extraction will be acceptable.
MIN2	Proposals to Work Sand and Gravel in Relation to Regional Requirements and London Wide Landbank	The minerals planning authority when considering proposals to work sand and gravel will, subject to applicants being able to establish their accordance with the policies in this plan and other environmental considerations seek in conjunction with other London boroughs to contribute a proportion of the regional sand and gravel requirement and London-wide landbank.
MIN3	Restriction on Area of Land South of M4 Motorway Subject to Planning Consent for Sand and Gravel Extraction	<p>The minerals planning authority will not normally grant permissions that would result in more than 165 hectares of land south of the m4 motorway being subject to planning consent for sand and gravel extraction and/or waste disposal and where the full restoration is yet to be completed, except in exceptional circumstances. Such circumstances may include:-</p> <ol style="list-style-type: none"> 1 The need to supply an adjacent or nearby major project; 2 Where the production of sand and gravel is an incidental by product of development for some other primary purpose; 3 When refusal of permission based solely on this policy would sterilise the orderly working of reserves that could be processed through an existing environmentally acceptable processing plant; <p>Short-term working when the output from a newly commissioned quarry may overlap with the production from one nearing closure through exhaustion of its available reserves.</p>

Policy Numbers	Policy Name	Details
MIN12	Proposals for Extraction of Clay and Brickearth	<p>Where applications are received to extract clay or brickearth for civil engineering works and borrow pits, the mineral planning authority will have regard to the following criteria:-</p> <ol style="list-style-type: none"> 1 the importance of the project, the demonstrated need for the materials and lack of suitable alternative resources or design solutions within the necessary timescale; 2 the adequacy of the applicants' proposals for limiting the overall timescale of the operation, together with environmentally acceptable proposals for extraction, landfilling (where necessary), restoration and aftercare of the site and how the applicant will manage the site during each phase; 3 the retention on site of all brickearth topsoils and subsoils for use in restoration.
MIN24	Sites for Aggregates Depots – Access, Location and Amenity Considerations	<p>The local planning authority will support in principle enhanced throughput at existing depots and the provision of new ones as close as possible to the long-term centres of demand in the following circumstances:-</p> <ol style="list-style-type: none"> 1. with satisfactory direct access to the primary road network; 2. where there will be no loss of environmental amenity, especially by excessive noise, dust, fumes or traffic; <p>where visual impact is minimised and overall design is of a high standard.</p>
MIN25	Safeguarding of Operational Rail Aggregates Depot Facilities	<p>The local planning authority will oppose any proposals for the redevelopment of currently operational rail depot facilities for other unrelated purposes unless satisfied that adequate alternative facilities are being provided to meet the long-term aggregates needs of West London.</p>
MIN26		<p>The local planning authority will continue to encourage environmental upgrading, whilst having regard to the need to ensure economic competitiveness of the depot in comparison with other methods of aggregates supply because of the importance attached to rail borne supplies and other policies within the plan.</p>
MIN27		<p>The minerals planning authority supports in principle the establishment of temporary rail-served depots to cater for major construction projects.</p>
<p>London Borough of Hillingdon Borough Local Development Framework: Revised Core Strategy (Preferred Options) (2007)</p>		
Preferred Option DC3	Location of Sites for Sand and Gravel Extraction	<p>The following sites have been assessed as being able to provide the defined aggregates requirement for the borough up to 2016. These are:</p> <ol style="list-style-type: none"> 1. Land west of the present Harmondsworth Quarry; 2. Land north of the village of Harmondsworth; and 3. Land at Sipson Lane, east of the M4 spur. <p>If during the LDF period the permitted sites and the identified Preferred Areas together are demonstrably unable to maintain the level of provision required, the Mineral Planning Authority will address this on a Borough-Wide basis.</p>

Policy Numbers	Policy Name	Details
London Borough of Hounslow Unitary Development Plan (2003) (Saved Policies)		
ENV-N1.2	Acceptable Development in the Green Belt	There is a general presumption against inappropriate development within the Green Belt (see detailed criteria below). The open low-lying character of Hounslow's Green Belt provides opportunities for a diverse range of land uses including outdoor recreation, landscape amenity and nature conservation. In order to protect and enhance its open character, land within the Green Belt should be retained only as open land and kept free from built development. The visual amenities of the Green Belt should not be injured by proposals for development within the Green Belt which, although they would not prejudice the purposes of including land in Green Belts, might be visually detrimental by reason of their siting, materials or design. The Council will not permit except in very special circumstances, any development which is not compatible with the principal purposes of the Green Belt.
ENV-N1.4	Development Near the Green Belt Boundary	Any development proposal in areas near the Green Belt and conspicuous from within it, must be designed so that it does not detract from the open aspect or visual amenities of the Green Belt. Particular attention needs to be paid to building siting, materials, height, design and landscaping sympathetic to the Green Belt (See also Policy IMP.5.3 Comprehensive Project Areas).
ENV-W1.8	Use of the River Thames for Freight Transport	The use of waterways for waterborne freight, including waste and aggregates, and freight related activities will be encouraged. Waterside sites which are currently or could potentially, be used for the transshipment of freight will be retained and safeguarded against development that could preclude their future use for freight transport. Development on these sites for purposes which could preclude their future use for the transshipment of freight will only be considered where it can be proven that the site is no longer required to fulfil strategic transport requirement in the Port of London. In the case of disused or non-operational sites, other sustainable transport uses must be considered first before use for other purposes.
ENV-W1.8a	Safeguarding Wharves Against Incompatible Development	Development in the vicinity of current or potential wharves should avoid uses which are incompatible with cargo-handling operations and take into account the need to minimise any conflict of use and disturbance which might jeopardise the wharf's future use as a cargo-handling site.
ENV-P3.1	Mineral Workings	The Borough appreciates the need for minerals in the area and will continue to promote the use of secondary aggregates wherever possible. In view of the major environmental constraints in Hounslow, applications for further gravel extraction will be resisted where overriding reasons exist. Planning permission will normally only be granted where: (i) there is no significant adverse effect on the environment and amenity for those people living, working or travelling through the Borough; (ii) that the short term effects on the landscape are acceptable and that any long term effects are not materially harmful and preferably beneficial; (iii) there is no adverse effect on safety or significant adverse effect on amenity or other grounds from vehicular traffic or increased traffic flows; (iv) land of high quality agricultural value (Grades 1, 2 and 3A) is safeguarded from permanent loss, and restoration must be able to achieve the same (or improved) grade of land overall; (v) there is no significant adverse effect on areas and features of ecological, historical, geological or archaeological interest;

Policy Numbers	Policy Name	Details
		<p>(vi) there is no overall loss of either public or private recreational land. Temporary alternative provision of an acceptable type, nature and location must be provided until such time that the land is restored to recreational use;</p> <p>(vii) there is no unacceptable risk to public safety or on ground and surface water;</p> <p>(viii) there are firm and satisfactory restoration and after use proposals in accordance with MPG 7;</p> <p>(ix) there is appropriate control of the extent and phasing of any mineral workings in order to minimise environmental disturbance. In the event of permission being granted the requirements of Schedule 5 of the Town and Country Planning Act 1990 should be fully complied with. The above criteria apply to all proposed workings in the Borough including those areas designated as 'Mineral Extraction Site/Areas of Search' on the Proposals Map.</p>
ENV-P3.2	Minerals Landbank	Whilst promoting the use of secondary aggregates, this Council, in consultation with all other mineral planning authorities within Greater London, accepts the requirement of maintaining a London-wide minerals landbank, in accordance with MPG 6 whilst having regard to any exceptional circumstances which may prevail within boroughs. The UDP identifies two 'Areas of Search' as a guide to where the criteria specified in Policy ENV-P.3.1 are most likely to be met.
ENV-P3.3	Safeguarding Minerals Reserves	The Local Authority will seek to safeguard sites with known mineral reserves of economic importance against development which could sterilise deposits and seriously hinder their extraction unless there are good planning reasons for not doing so.
ENV-P3.4	Facilities for the Distribution of Aggregate	<p>The protection of existing and establishment of new facilities for the importation and distribution of aggregate by rail or river will be supported where both of the following criteria are met:</p> <ul style="list-style-type: none"> (i) the site has good connections to the primary road network which are adequate to cope with the expected traffic; (ii) there is no conflict with Green Belt, environment or employment policies (unless there are exceptional overriding reasons)
T2.7	Rail and Waterborne Freight	Rail and waterborne freight will be encouraged where practicable and suitable and where the impact on adjoining land is acceptable. The loss of existing wharves and railway sidings will also be resisted where appropriate, particularly where they are still in regular use or have the potential to be so in the future.
London Borough of Hounslow Local Development Framework: Core Strategy (Issues and Options) (2007)		
Minerals Issue		The London Plan sets the amount of aggregate that West London must provide at 0.5 million tonnes per year, the other 50% being allocated to East London. Hounslow is one of a number of Boroughs expected to contribute to the West London requirement of 0.5 million tonnes or 500,000 tonnes per year.

Policy Numbers	Policy Name	Details
Minerals Issue		<p>Hounslow must allocate land known to contain sand and gravel to ensure that the Borough has reserves to contribute towards the sub-regional requirement for West London of 3.5 million tonnes (7 years x 0.5 m tonnes pa). This figure has not been allocated at a Borough level and it is therefore for the Borough to outline what it aims to provide. The allocation may take the form of 'specific sites', 'preferred areas' or 'areas of search'. Specific sites will generally be where minerals are known to exist, where landowners are supportive of mineral extraction and where mineral extraction is likely to be acceptable in planning terms. Preferred areas are areas of known resources where planning permission might reasonably be anticipated. Areas of Search are broader areas where knowledge of mineral resources may be less certain, but within which permission for mineral extraction could be granted to meet any shortfall in supply.</p>

**Appendix B Entries Relating to LB Hounslow in the London
Aggregate Resource Survey of 2003**

Site No	Name	Area	Yield	Ownership	Current land use	Planning History	Relation to other sites
6	Cranford Park East	9ha	0.5mt	LB Hounslow	Public open space, with nature trails, information centre, picnic/playground area, etc	None Known	Potential to work with site 5
8	South of Hatton	39ha	2.5mt	LB Hounslow	School playing fields, recreation ground, allotments and open land	None	None
9	Rectory Farm	42ha	2.9mt	Last known: HT Hughes plc/ AJ Bull Ltd	Farmland	Two proposals for mineral working 1962 and 1969 refused permission on grounds of loss of agricultural land in Green Belt, future M4 linear parkway and amenity issues.	None Known
10	Mayfield Farm	40ha	2.4mt	Last known:BAA	Farmland	Refused gravel extraction 1948	Not Known
11	Land to south of Silverdale Kennels	5ha	0.25mt	Not Known	Open land	Permission granted – no details known	Not Known
12	Hanworth Park and rectory meadow	60 ha	2.5mt	LB Hounslow	Large park with public access and school playing fields	Not Known	Not Known
13	West of Thames Waterworks at Kempton	23ha	1.3mt	Thames Water Utilities	Farming with some utilities/pipeline	Not known	Land to north has previously been worked for minerals and restored to playing fields and rugby football ground
14	South of Thames Water Works	8ha	0.35mt	Thames Water Utilities	Open land	Not Known	Not Known
15	Hatherop recreation and sports ground	24ha	1.0mt	LB Richmond/LB Hounslow	Recreation ground and allotments	No known apps for minerals bu	Not Known

Site No	Name	Area	Yield	Ownership	Current land use	Planning History	Relation to other sites
						previous refusals for B2 uses on Green Belt grounds	
18	Osterley Park North	47ha	2.5mt	Not Known	Farmalnd/parkland with small part in LB Ealing	Not Known	Not Known
19	Osterley Park and west Osterley Park	91 ha	5.5mt	Part ownership LB Hounslow	Park school playing fields and open land	Not Known	Not KNown
20	Osterley Park and Wyke Green	36 ha	2.2mt	Not known	Park and Open space	Not Known	Not Known
21	Wyke Green Golf Course, sports Ground and Trumpers Wood	36ha	2.2mt	Private	Golf course sports club and woodland	None Known	None Known
66	Rear of western international Market	19ha	0.9? mt	LB Hounslow	Grassland	None known	None known

Appendix C Planning History

Site Name/ Address	Site Area	Grid Ref	Planning History Detail	Decisions	Potential Yield
Greenham Common, Ashford Road, Feltham	51 ha	509215, 172298	<p>First application recorded for minerals extraction is 1935.</p> <p>The site is currently restored to an appropriate after-use.</p> <p>Application in 1983 for the extraction of sand and gravel on the south side of Ashford Road, to be followed by progressive filling with inert waste and restoration for agriculture.</p> <p>Appeal in 1971 against decision against an application for offices and other temporary buildings on site.</p> <p>Application ref: P/1994/0357, 00242/C/P67</p> <p>Approved – variation of condition application submitted 1994 for variation of condition 32 to allow for the completion of gravel extraction.</p> <p>WCDW/GREENH/D02/D01 -</p> <p>Application 1983 for extraction and infilling of 3.77 ha of land within the 51 ha site boundary and landfill restoration.</p> <p>Planning permission was granted in 1935 to extract minerals from the site.</p>		N/A
Mayfield Farm	40 ha	507602, 173279	<p>Application for gravel extraction in 1948 - refused</p>		2.4mt
Thames Water Valley facility at Kempton Park	15 ha	510947, 171107	<p>Application for extraction to use in the construction of terminal 5 - Approved .. Since restored to playing fields and rugby football ground.</p>		<p>Nil</p> <p>Land to West of Thames Water Works 1.3mt</p>
Rectory Farm, Cranford	42 ha	511080, 177080	<p>Currently in use as farmland owned by H.T. Hughes PLC, A.J. Bull Ltd.</p> <p>Application in 1962 for mineral workings - refused</p> <p>Application in 1969 for mineral workings - refused</p> <p>Planning application for the extraction of sand and gravel in 1989 dismissed at appeal in 1990 due to amenity issues (residential development nearby). Was put forward for UDP consideration however not identified within the Council's area of search as it provides a valuable green space in a densely built up area.</p> <p>Applications for mineral workings were refused due to perceived loss of</p>		2.9mt

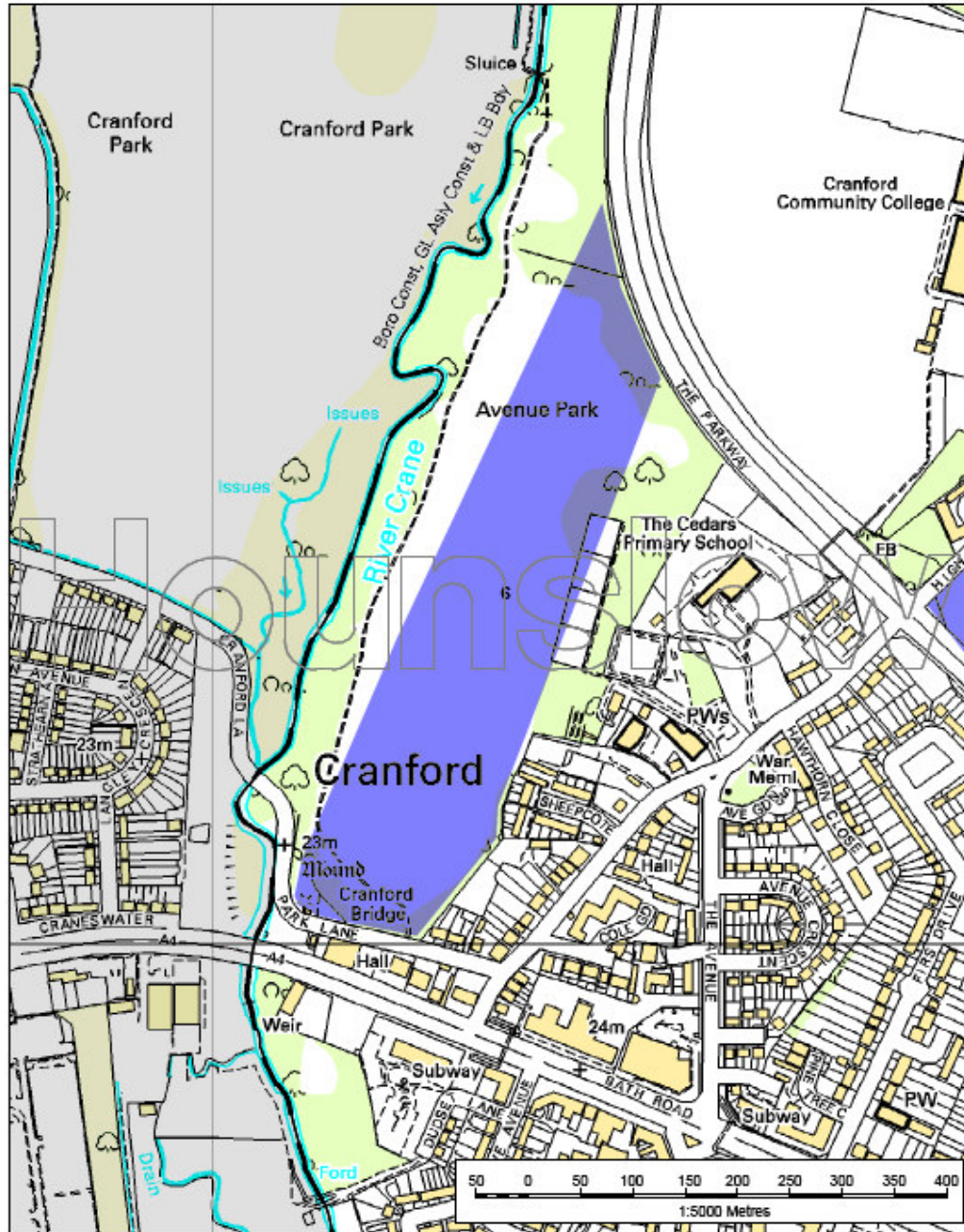
Site Name/ Address	Site Area	Grid Ref	Planning History Detail	Decisions	Potential Yield
Land North of HM Borstal, Hatton Farm, Bedfont Road, Bedfont	39 ha	509881, 174477	<p>agricultural land in the Green Belt, future development of the M4 linear parkway and loss of amenity (Source: LARS)</p> <p>Land south east of Heathrow Terminal 4 and North of Duke of Northumberland River.</p> <p>Original application for extraction, processing and preparation of sand and gravel. Refilling and restoration of land to agriculture.</p> <p>Application -MJP/SMH/hatonfm2 for extraction and restoration</p> <p>Application - 576/K/P9(a) for extraction and restoration</p> <p>Application 95/P/P2 – Renewal of permission for the extraction and processing of sand and gravel, refilling, restoration, temporary site offices and processing plant.</p> <p>Application pending for change of use to Country Park ref: P/2009/2532</p>		2.3mt
Bedfont Lakes, Clockhouse Lane, Feltham	2.47 ha	507956, 172552	<p>Now largest country park to be created in London area.</p> <p>Comprehensive development of 248 acres, comprising (i) extraction of minerals (to be used on site), (ii) creation of Bedfont Lakes Country Park.</p> <p>Application 257/J/P2 Permission for extraction of 132,000 tonnes of material in 1988.</p>		Nil – Site fully restored
Land south of Ashford road, Feltham	3.77 ha	509008, 171617	<p>Permission granted for the extraction 213,000 tonnes of sand and gravel (Greater London Council decision Application 242/C/P52) in 1984, followed by progressive filling with inert waste and restoration for agriculture.</p>		Not known
Lower Park Farm, Church Road, Cranford	Not known	510698, 177982	<p>Enforcement and stop notices 1174/A/C5 and S/940/2</p> <p>Unauthorised gravel extraction took place on site on or about July 1982 following unauthorised uses of the land in question as a transport yard/car storage – land now restored in use as caravan storage yard</p>		Not known
Clockhouse Lane, Hounslow	Not known	507519, 172335	<p>Site for minerals extraction operated by R.M.C. (halls) – site visit in 1981 recorded</p>	Not known	Not known
Victors Nurseries, Hounslow	Not known	Not known	<p>Operated by R.M.C. (halls) – site visit recorded in 1981</p>	Not known	Not known
Land at Bedfont Road	4.2 ha	508956, 172632	<p>Currently being worked by Day Aggregates.</p>	Permission	Original approval

Site Name/ Address	Site Area	Grid Ref	Planning History Detail	Decisions	Potential Yield
(PSA Bedford Road)			<p>Planning consent for extraction granted in 1957</p> <p>Granted permission for mineral extraction in 1995 on appeal. The consent was renewed in 1996.</p> <p>Consent also granted in 1998 although site not active at this stage.</p>	<p>expired in 1992.</p> <p>Application 00095/P/P2 for renewal of permission approved in 1996.</p> <p>Appeal against 1985 application decision – granted permission T/APP/F554 0/A/86/04780 1/P3.</p> <p>Second application 95/P/P1(a) by Greenham Sand and Ballast for extraction and processing of sand and gravel and subsequent refilling and restoration - refused</p> <p>95/P/M1 Application made in 1979 for the extraction of sand and gravel made in 1985 - refused</p>	was given for 210,000 tonnes

Appendix D Consultation Responses

	Organisation	Response
	Day Aggregates (Brentford Rail Depot)	No response
	Frank Lyons Group (Bedfont Road)	No response
	Barton Willmore Partnership	No response
	RMC Aggregates (Greater London) Ltd	No response
	Lafarge Aggregates Limited	No response
	Land and Mineral Management Ltd	No response
	BAA plc	Proposes land at Mayfield Farm (Site 10) for minerals development
	The Mayor of London (Planning Team)	No response
Local Authorities	London Borough of Ealing	No response
	London Borough of Richmond	No response
	London Borough of Hillingdon	No response
	London Borough of Hammersmith and Fulham	No response
	Spelthorne Borough Council	No response
	Surrey County Council	Proposes site 10 Mayfield Farm as a cross boundary extension to Homer Farm workings within the Surrey CC boundary.
	London Borough of Hounslow Corporate Property	No response
LAWP	LAWP - Technical Secretary	Expresses concern at continued reliance on two sites which have attracted no industry interest.
	Hanson	No response
	GLA	No response
	Cemex	No response
	Port of London Authority	No response
	Mineral Products	No response
	Brett Aggregates	No response
	Brett Aggregates	No response
	QPA	No response
	Lafarge Aggregates Limited	No response
	Raymond Brown Group	No response
	The Crown Estate	No response
Others	Response from owners of Site 9: Rectory Farm. Proposes site for minerals development	

Appendix E Maps



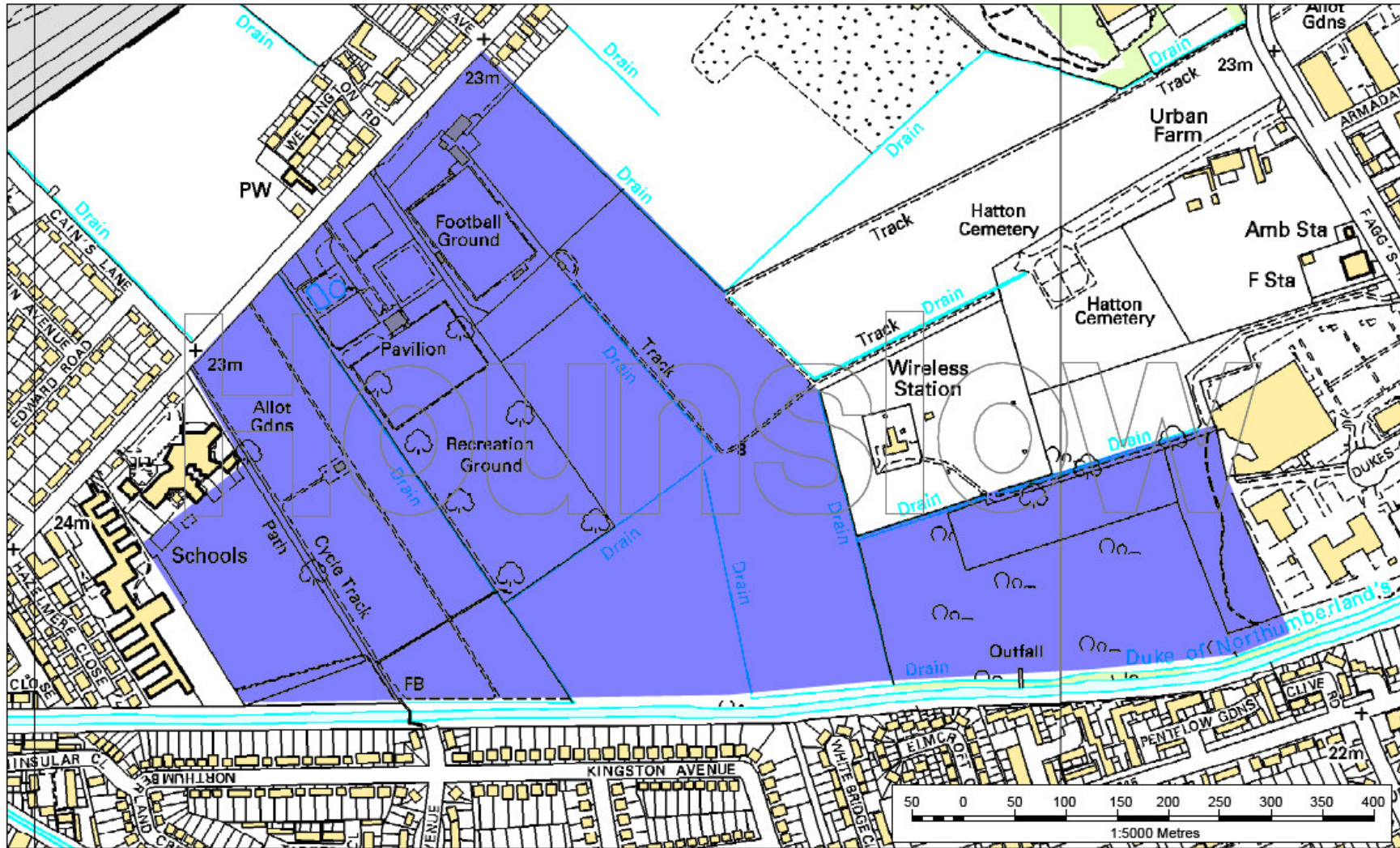
Mineral Site 6: Cranford Park East



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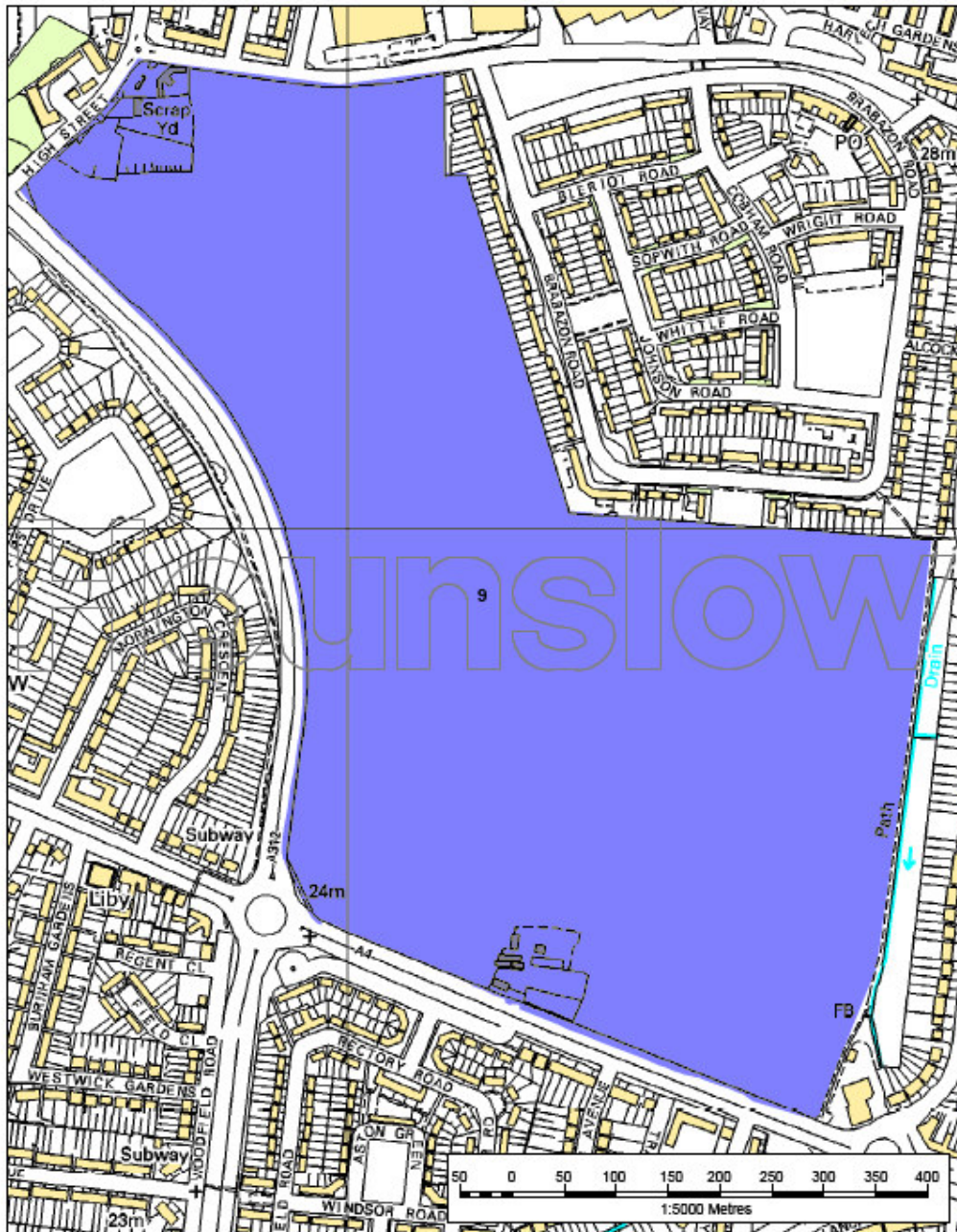


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Mineral Site 8: South of Hatton



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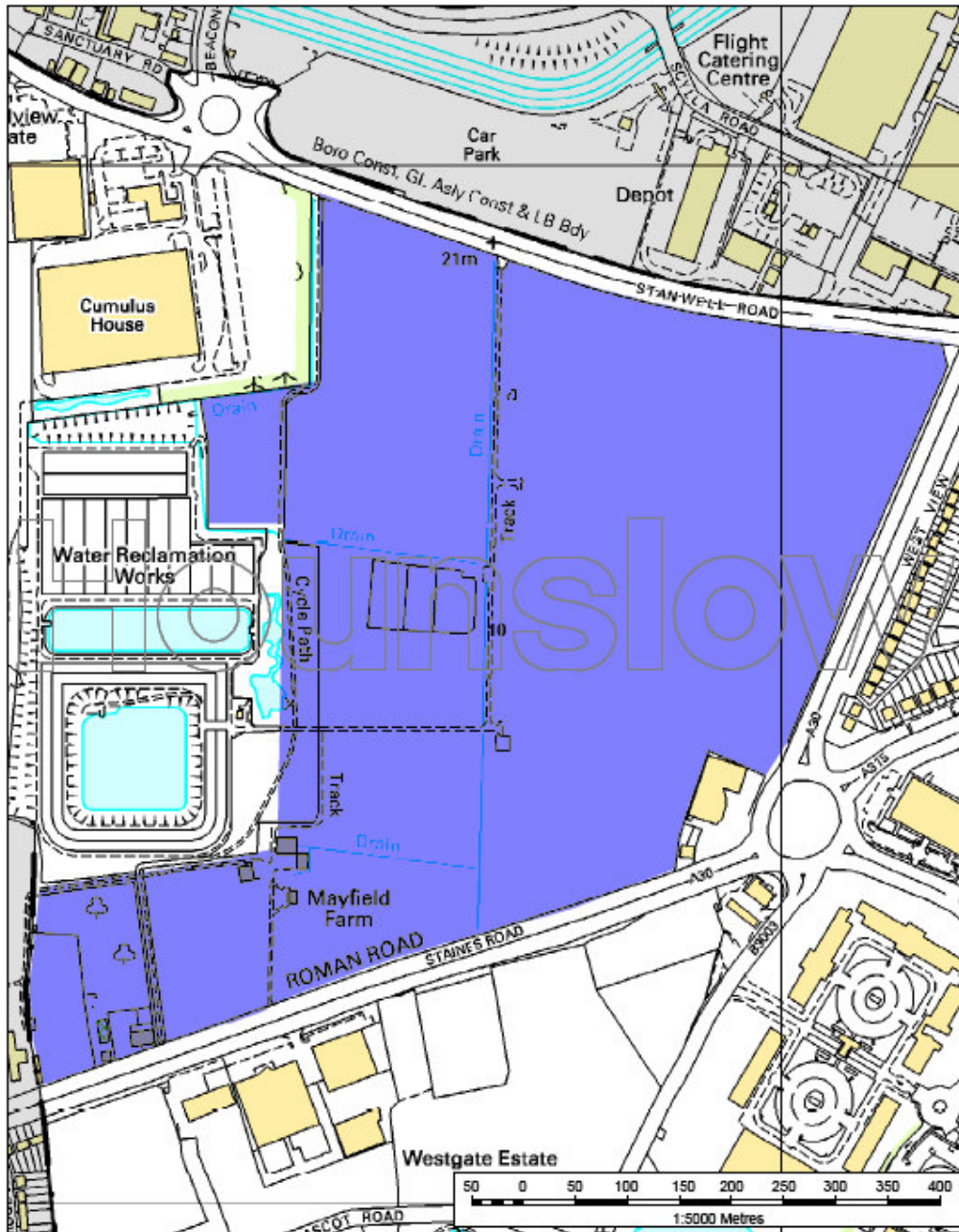
Mineral Site 9: Rectory Farm



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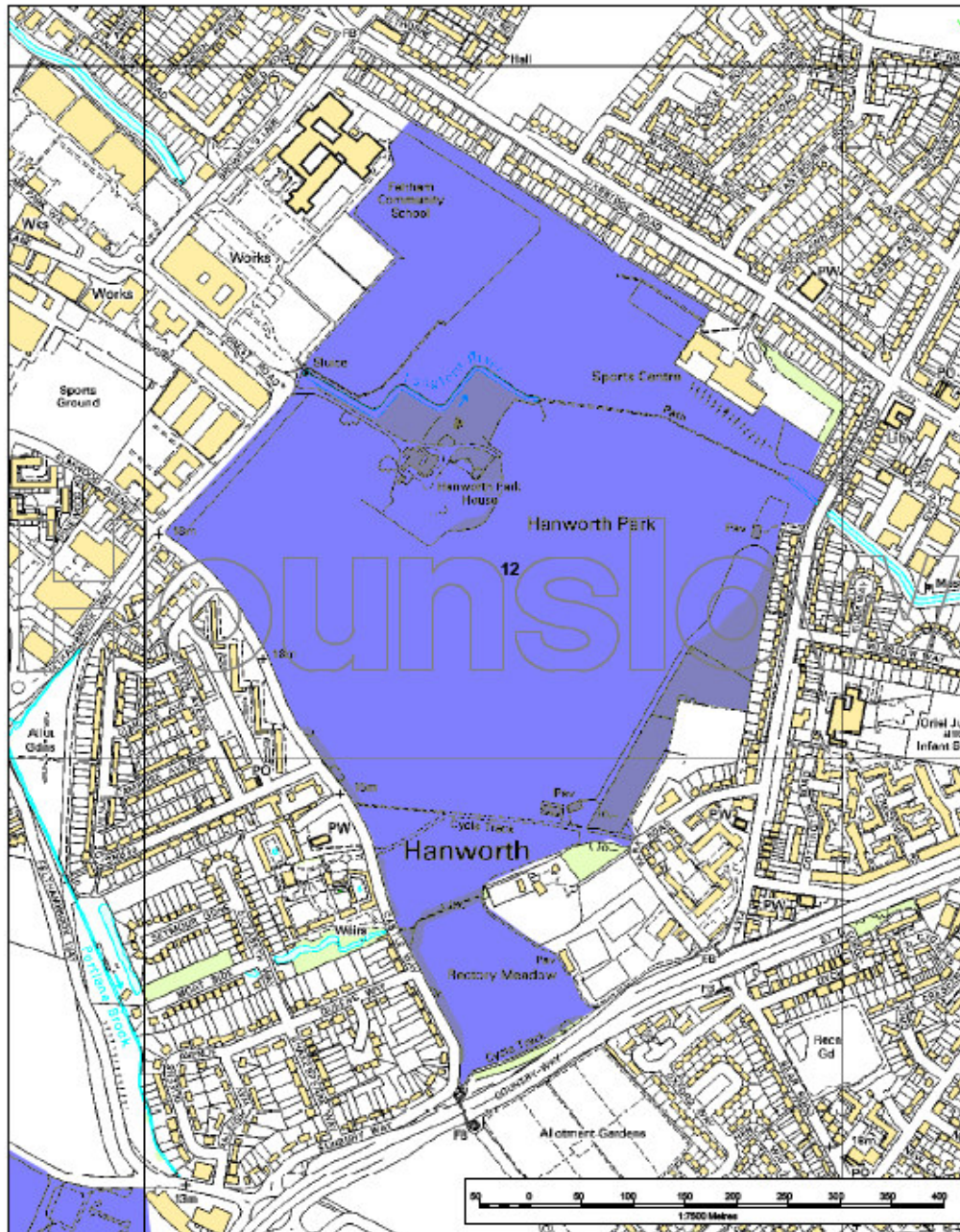
Mineral Site 10: Mayfield Farm



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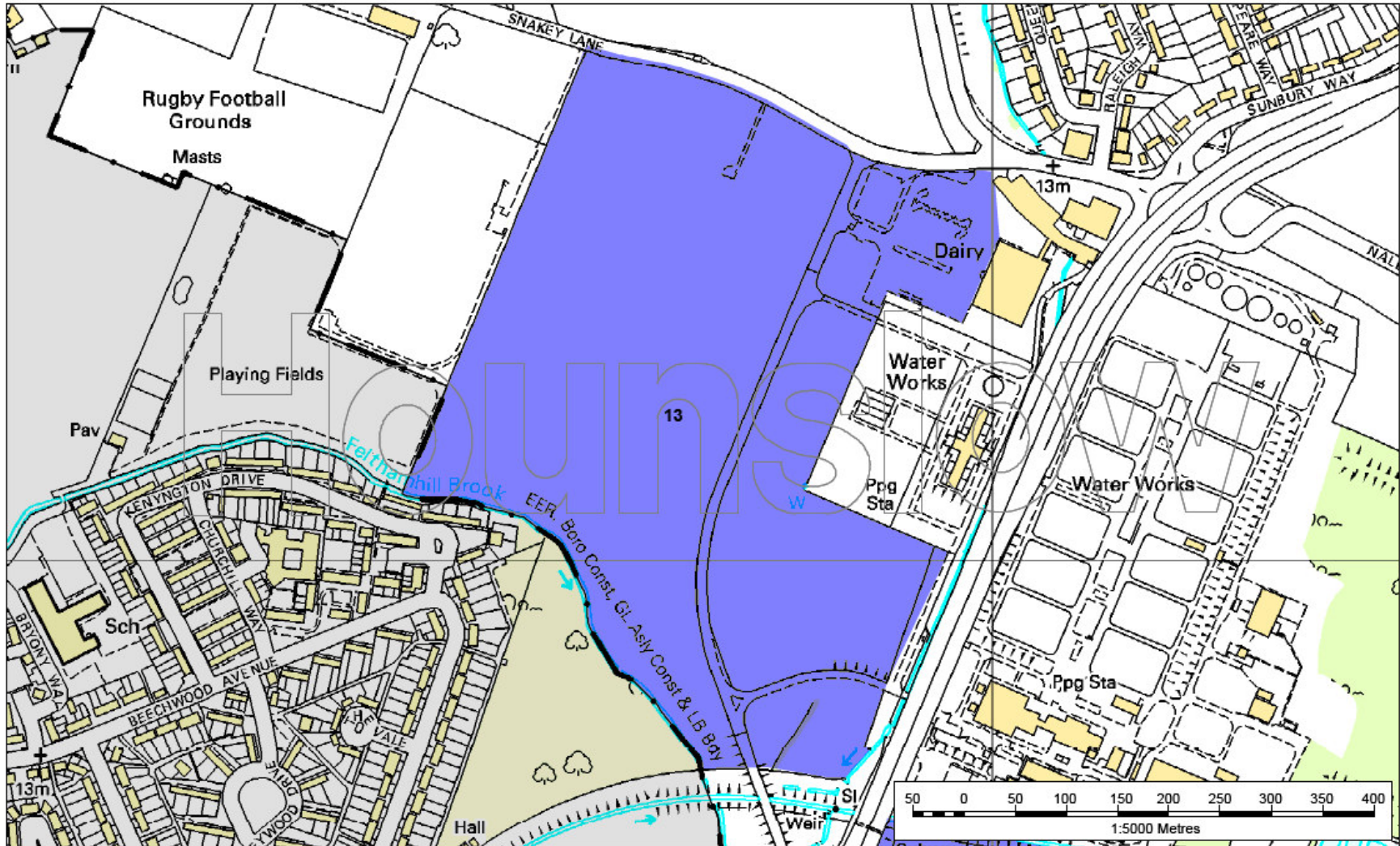
Mineral Site 12: Hanworth Park and Rectory Meadow



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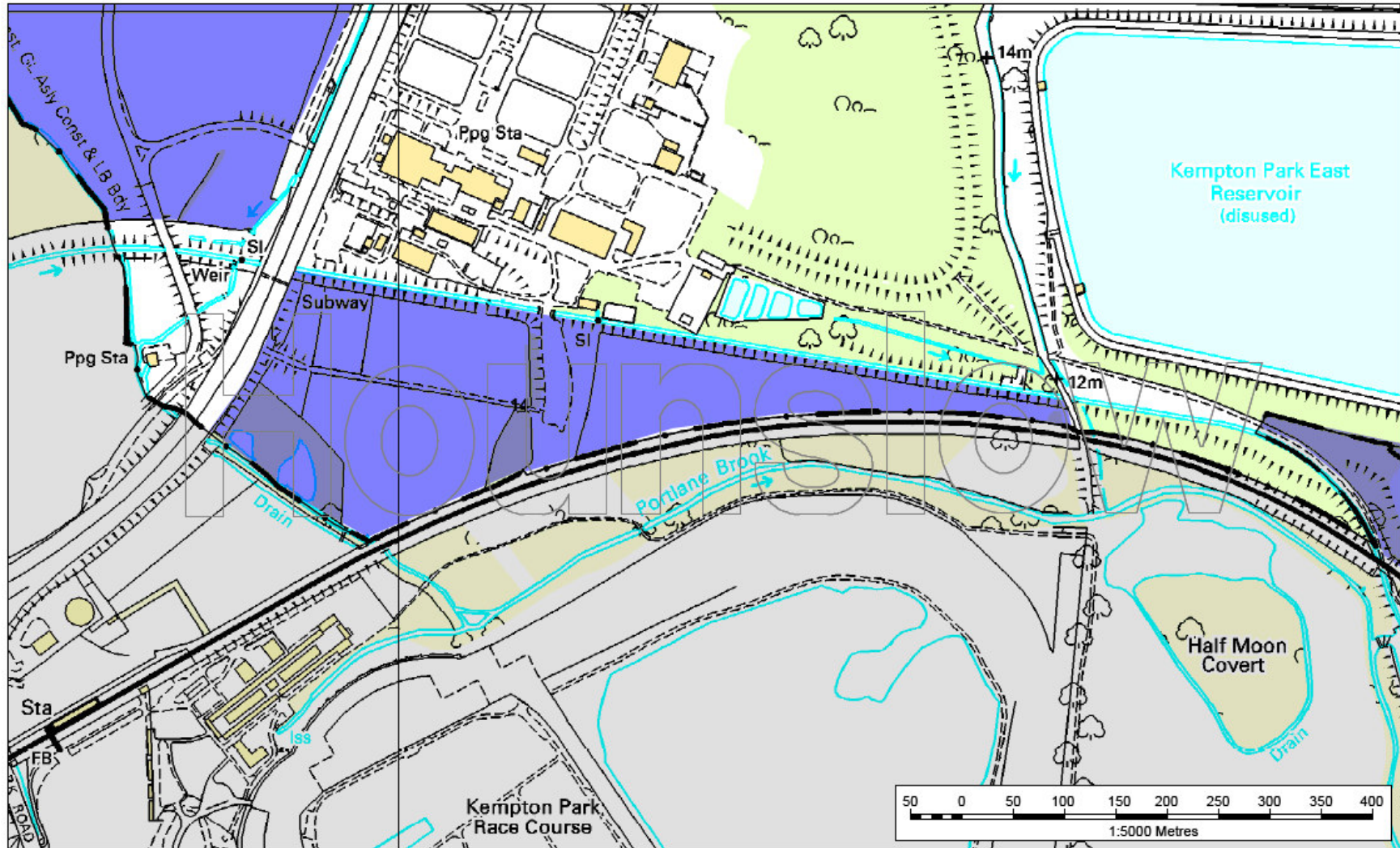


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**Mineral Site 13: West of Thames
Water Works at Kempton**



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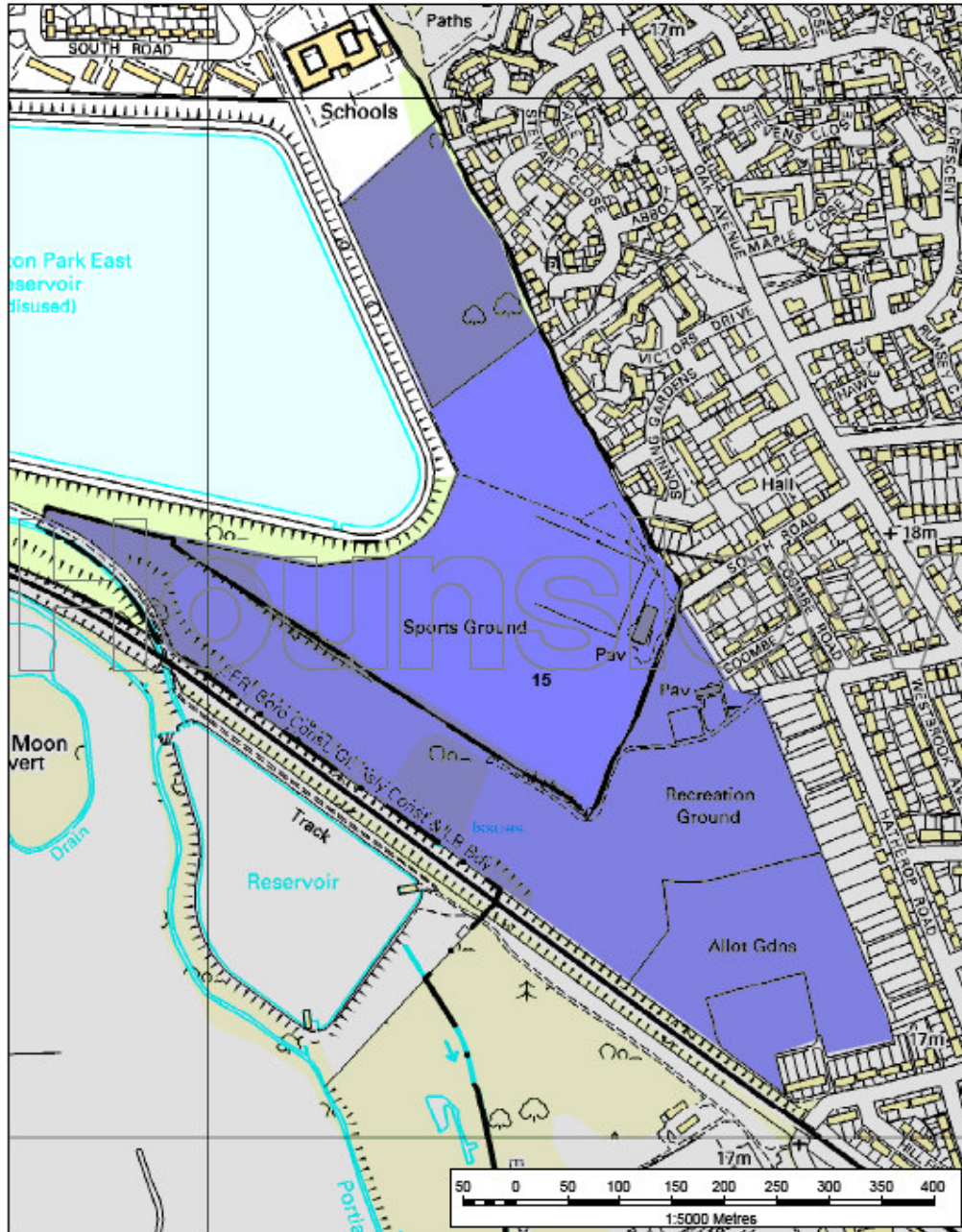


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**Mineral Site 14: South of
Thames Water Works**



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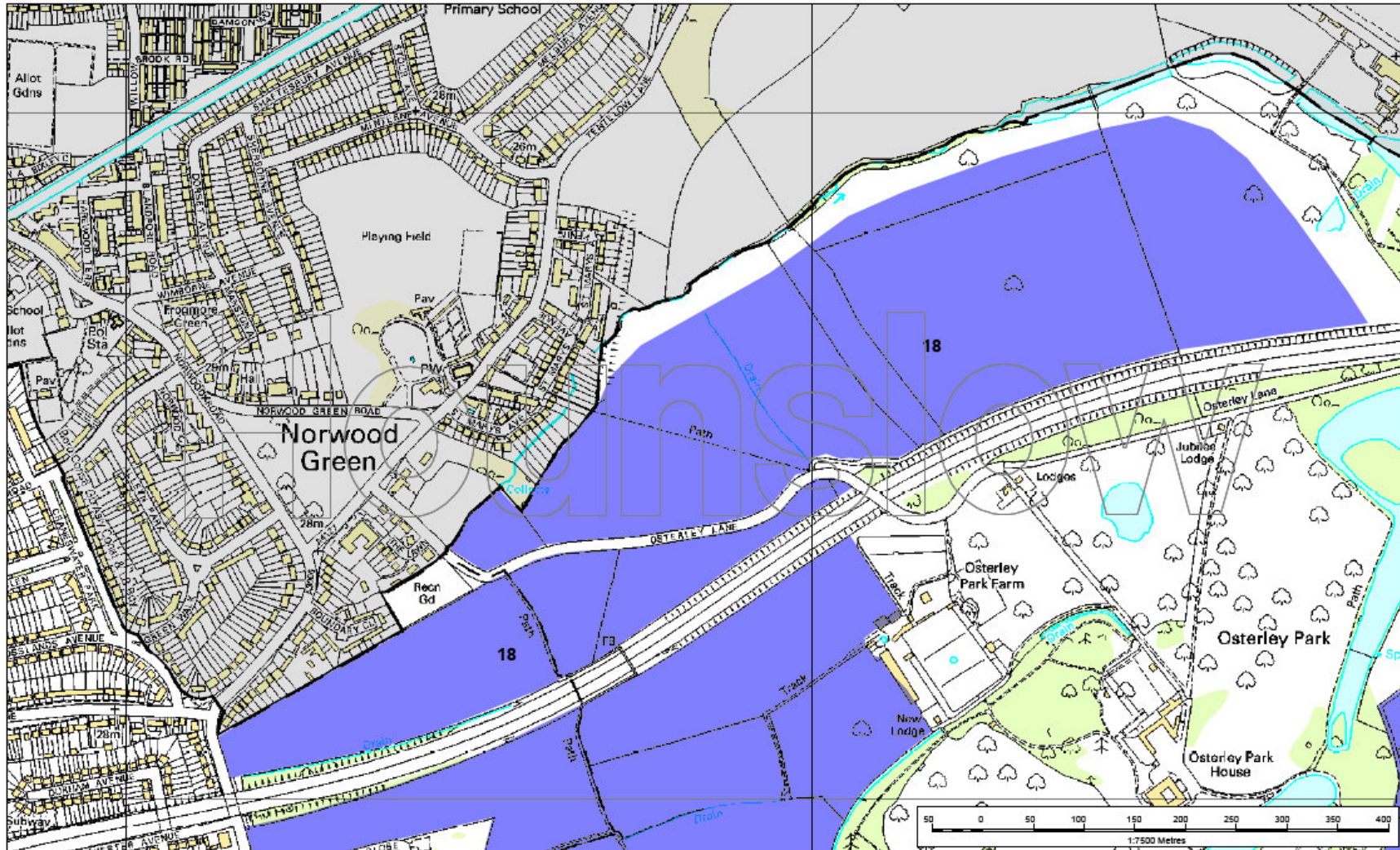
**Mineral Site 15: Hatherop
Recreation and Sports Ground**



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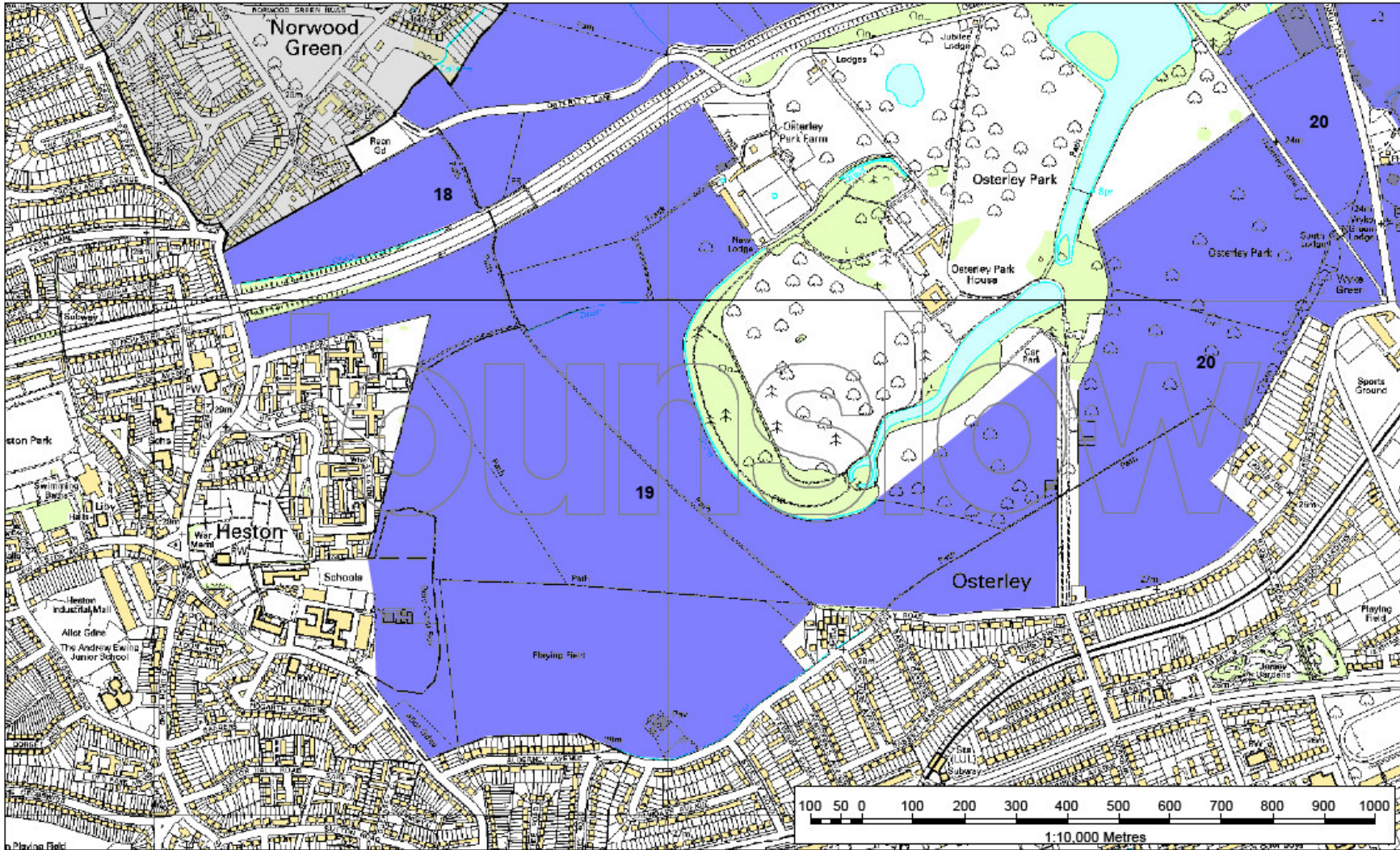


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Mineral Site 18: Osterley Park North of M4



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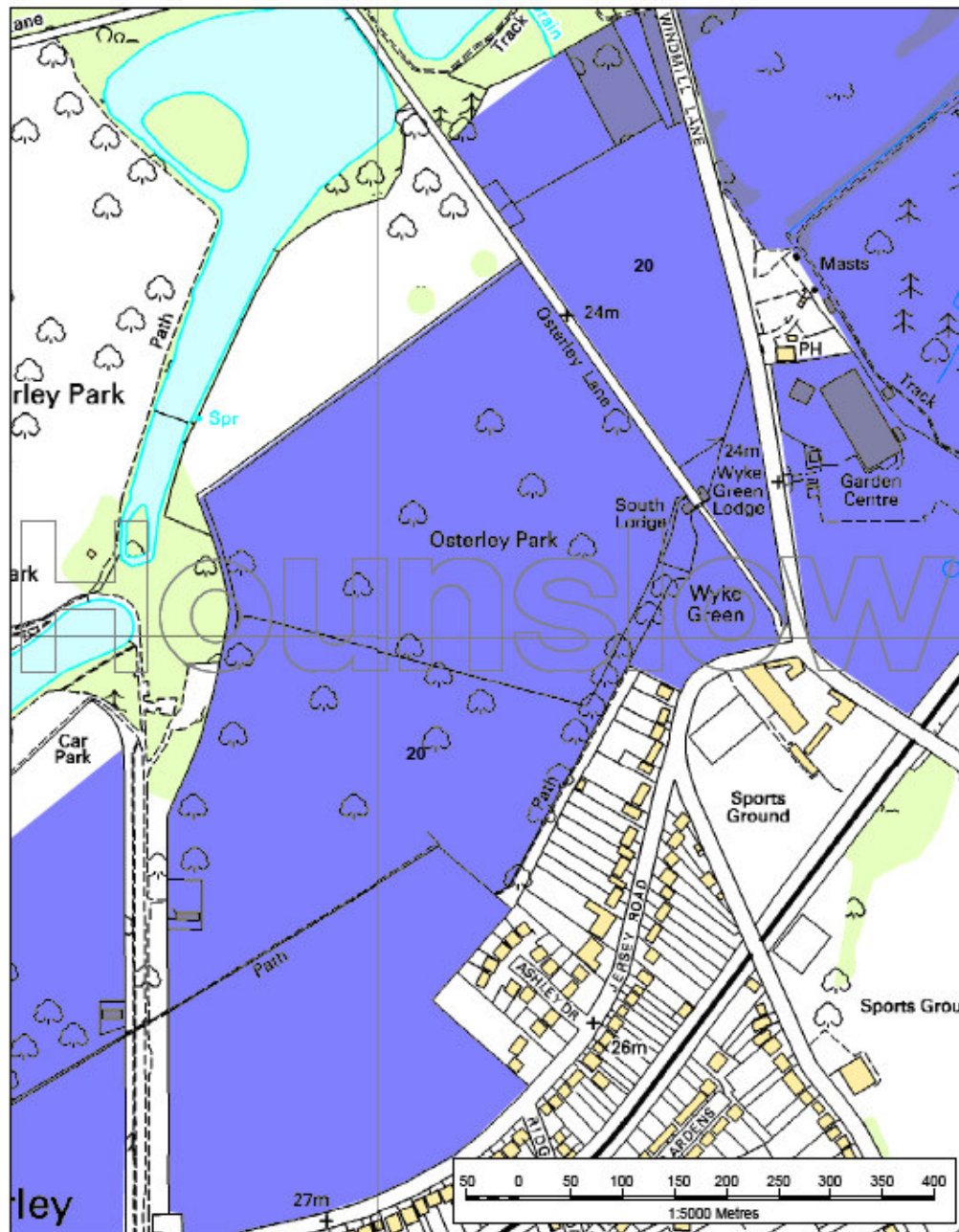


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**Mineral Site 19: Osterley Park
and West of Osterley Park**



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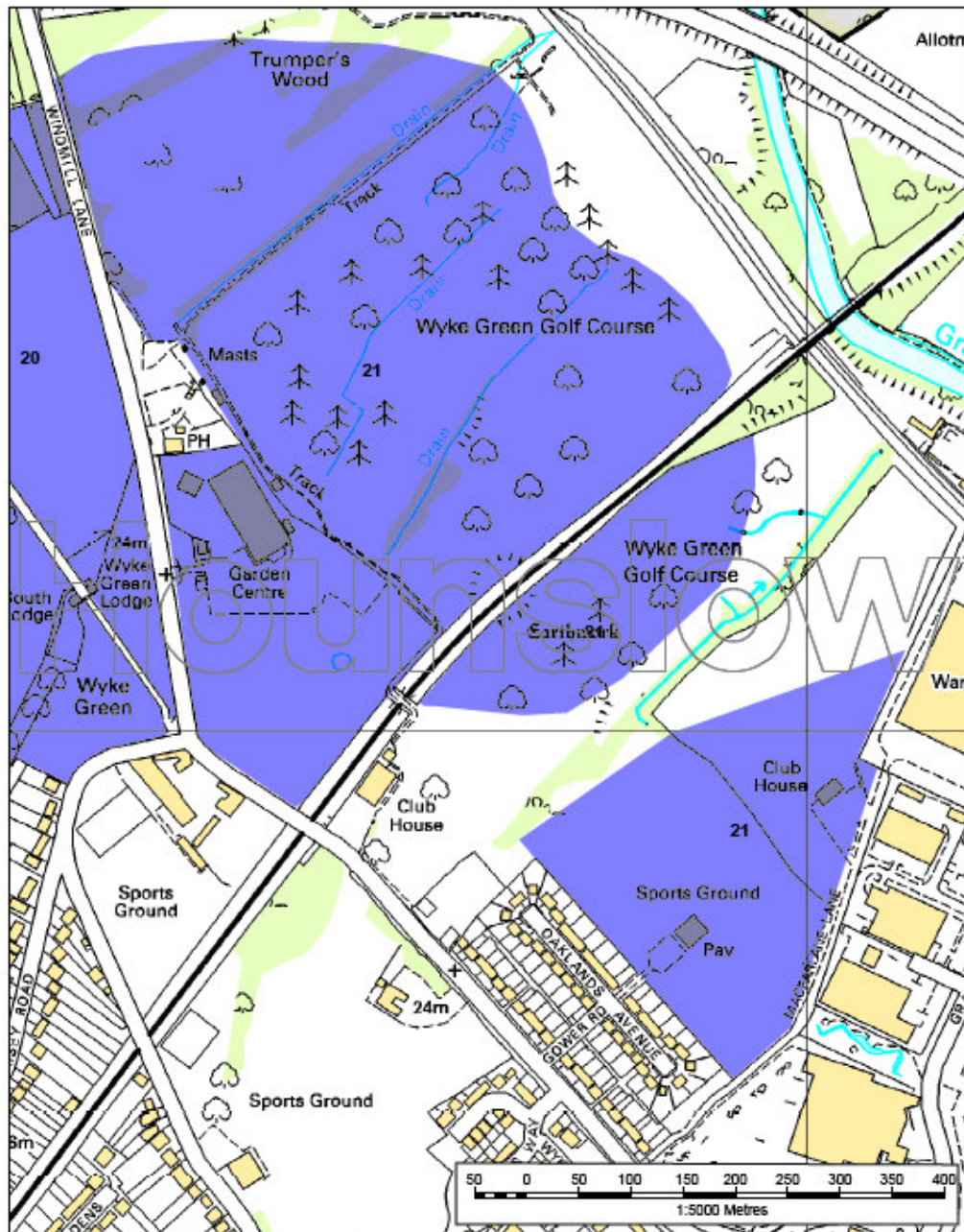
Mineral Site 20: Osterley Park and Wyke Green



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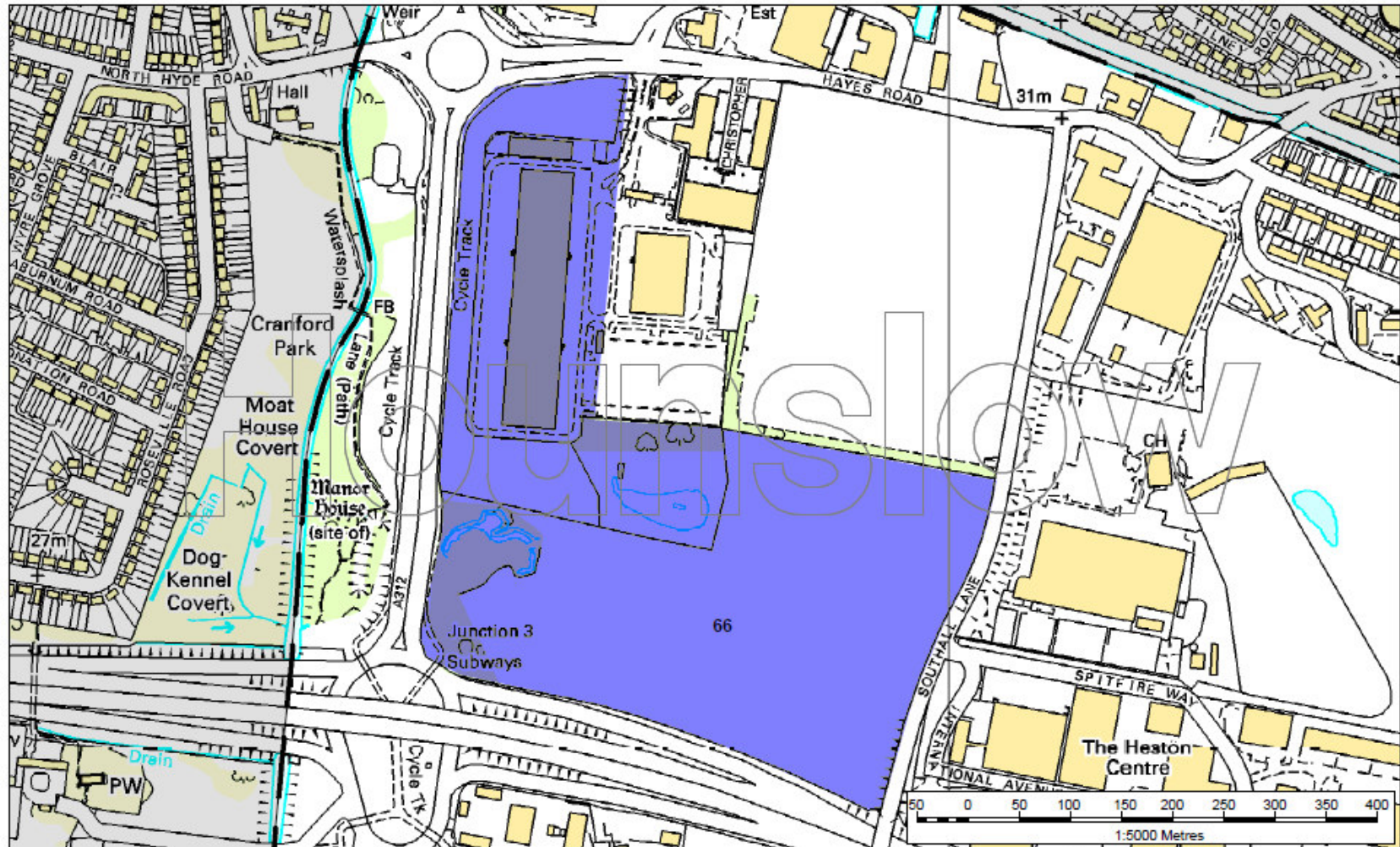
**Mineral Site 21: Wyke Green Golf Course,
Sports Ground and Trumper's Wood**



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Mineral Site 66: Rear of Western
International Market, Southall



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