

Central and Eastern Berkshire

Joint Minerals & Waste Plan

**Habitats Regulations Assessment
(Appropriate Assessment)**

Proposed Submission

(July 2020)



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Non-technical summary

1. The purpose of this report is to document the Appropriate Assessment process, undertaken as part of the Habitats Regulations Assessment (HRA) of the Joint Minerals & Waste (Proposed Submission) Plan for the Central & Eastern Berkshire Authorities. A flowchart outlining the steps in the Appropriate Assessment process is provided in Figure 3 and the Appropriate Assessment process is documented in Section 5.
2. The need for HRA is required by the Conservation of Habitats & Species Regulations 2017 (Habitats Regulations). The aim of the Regulations is to “maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of community interest”.
3. The first stage of the HRA process is screening, a broad filter or ‘likely significant effect’ test, which determines whether the plan or individual element of the plan is likely to have a significant effect on European sites, either alone or in-combination with other projects and plans. This was undertaken and resulted in three policies and four sites being screened in as having the potential to have significant effects on European sites alone or in-combination, requiring further consideration.
4. The aim of this stage of the HRA process is to assess the screened-in policies and allocated sites against the conservation objectives of the European sites to demonstrate whether they would adversely affect the integrity of those sites.
5. This document should be read in conjunction with the Proposed Submission Plan, HRA Screening Report and HRA Baseline and Methodology Report, listed in Section 1.
6. The assessment has been undertaken in consultation with Natural England and other relevant consultees. The assessment builds upon previous assessment stages and is part of an iterative process. This report will be reviewed and updated, as necessary, as the Central and Eastern Berkshire Joint Minerals and Waste Plan is developed.
7. The HRA has concluded that the Proposed Submission Plan is compliant with the Habitats Regulations and will not result in likely significant effects on any European sites, either alone or in-combination with other plans or projects. For development coming forward on either the allocated sites or non-allocated sites, it is considered that there are sufficient mitigation measures set out in the Plan, or elsewhere, such as via HRA requirements, regulatory requirements and development management processes.

1. Introduction

Previous Reports Undertaken

- 1.1 This report (Appropriate Assessment) is part of a 'suite' of Habitats Regulations Assessment (HRA) documents prepared in support of the Proposed Submission stage of the Joint Minerals and Waste Plan (the Plan) as it has been prepared. This report, therefore, builds upon the following reports:
- HRA Baseline and Methodology Report Revised (June 2017)¹ – Issues and Options stage of Plan preparation;
 - HRA Screening Report (June 2018)² – Regulation 18 stage of Plan preparation;
 - HRA Screening Report Proposed Submission (July 2020)³ – Regulation 19 stage of Plan preparation.
- 1.2 Natural England were consulted on the HRA Baseline and Methodology Report and on the Regulation 18 screening iteration and are being consulted on the Regulation 19 screening report and this Appropriate Assessment. Natural England's comments on the Regulation 18 screening of the Plan are provided in Appendix 6 of the HRA Screening Report Proposed Submission (July 2020). Consultations on the HRA process and Natural England's consultation responses will be published in the final 'Record of Determination' on publication of the Plan.

Purpose

- 1.3 The purpose of this document is to report on the 'Appropriate Assessment' of policies and allocated minerals and waste sites screened-in as part of the Habitats Regulations Assessment (HRA) screening process documented in the HRA Screening Report Proposed Submission (July 2020). The objective of this Appropriate Assessment is to assess the potential effects of the Plan on European sites, either alone or in combination with other plans or projects.
- 1.4 This report should be read in conjunction with the Proposed Submission Plan, as well as the documents listed in paragraph 1.1, above, which have been prepared to document earlier stages of the HRA process.

¹ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\).](#)

² [Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment Screening Report \(June 2018\).](#)

³ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

Requirement for Appropriate Assessment

- 1.5 The need for HRA, sometimes also referred to as Appropriate Assessment or AA is set out within Article 6 of the EC Habitats Directive 1992⁴, transposed into UK law by the Conservation of Habitats & Species Regulations 2017 (Habitats Regulations)⁵. The aim of the Habitats Directive is to “maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of community interest” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the ‘European sites’, although the sites have a significant role in delivering favourable conservation status.
- 1.6 Regulations 105 to 109 of the Habitats Regulations require competent authorities to assess the effects of ‘land use plans’ on European sites, where the plans are not directly connected with or necessary to the management of those sites. This requirement applies to Local Development Documents (LDD) including Development Plan Documents (DPDs). The Central and Eastern Berkshire - Joint Minerals & Waste Plan is a DPD and is therefore subject to HRA.
- 1.7 Under Regulation 105, the assessment must determine whether or not a plan will adversely affect the integrity of the European site(s) concerned, either alone or in combination with other plans and projects. Plans can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Where effects on ecological integrity are identified, plan makers must first consider alternative ways of achieving the plan’s objectives that avoid significant effects entirely.
- 1.8 Where it is not possible to meet objectives through other means, mitigation measures that allow the plan to proceed by removing or reducing significant effects may be considered. If it is impossible to avoid or mitigate the adverse effect, the plan-makers must demonstrate, under the terms of Regulation 107 of the Habitats Regulations, that there are Imperative Reasons of Overriding Public Interest (IROPI) to continue with the proposal. In such cases, compensation would be necessary to ensure the overall integrity of the site network. This is widely perceived as an undesirable position and should be avoided if at all possible.
- 1.9 The first stage of the HRA is screening, a broad filter or ‘likely significant effect’ test, which determines whether the plan or individual elements of the

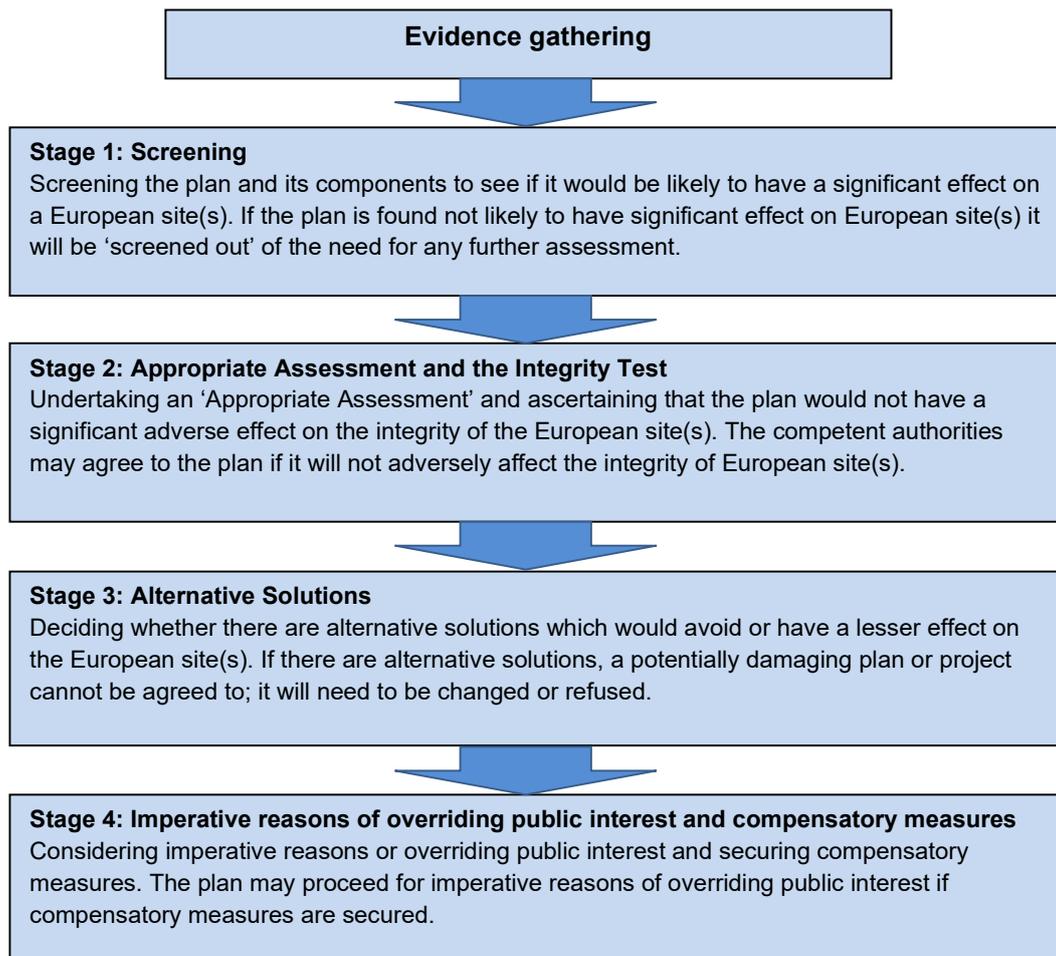
⁴ [Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.](#)

⁵ <http://www.legislation.gov.uk/ukxi/2017/1012/contents/made>

plan are likely to have a significant effect on European sites, either alone or in-combination with other projects and plans. Further information on the screening process undertaken as part of this HRA is provided in Section 3.

1.10 The four stage approach to Habitats Regulations Assessment set out in 'The Habitats Regulations Assessment Handbook'⁶ is summarised in Figure 1.

Figure 1: Four stage approach to HRA (taken from The Habitats Regulations Assessment Handbook)



Other Plans and Projects

1.11 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question. It is neither practical nor necessary to assess the 'in combination' effects of the Draft Plan within the context of all other plans and projects

⁶ [Tyldesley, D. and Chapman, C., \(2013\) The Habitats Regulations Assessment Handbook, May 2015 edition \(DTA Publications Ltd: Berkshire\).](#)

within the region. Principal plans and projects have been considered as part of the screening and Appropriate Assessment of minerals and waste policies and allocated sites and documented in this report.

Methodology and timing of HRA

- 1.12 The approach to undertaking Appropriate Assessment is set out in the HRA Baseline and Methodology Report⁷, which takes account of the procedures set out in the Habitats Regulations Assessment Handbook⁸ guidance. The guidance is non-statutory, but “based on experience, good practice and authoritative published guidance”. It is regularly updated after significant judgements which may add or change interpretations of the Directive.
- 1.13 Additionally, the Central and Eastern Berkshire Authorities have considered case law to ensure the HRA work complies with HRA requirements. In particular, this HRA takes into account the recent decision of the Court of Justice for the European Union in *People Over Wind & Sweetman v Coillte Teoranta*⁹ on 12th April 2018, which ruled that mitigation measures incorporated into a project cannot be taken into account at the screening stage. This means that a full and precise analysis of the measures capable of avoiding or reducing any significant effects on the site concerned must be carried out specifically at Stage 2 (Appropriate Assessment), and not as part of the screening stage. The Habitat Regulations have been amended to reflect this change in the law¹⁰.

⁷ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

⁸ [Tyldesley, D. and Chapman, C., \(2013\) The Habitats Regulations Assessment Handbook, May 2015 edition \(DTA Publications Ltd: Berkshire\)](#).

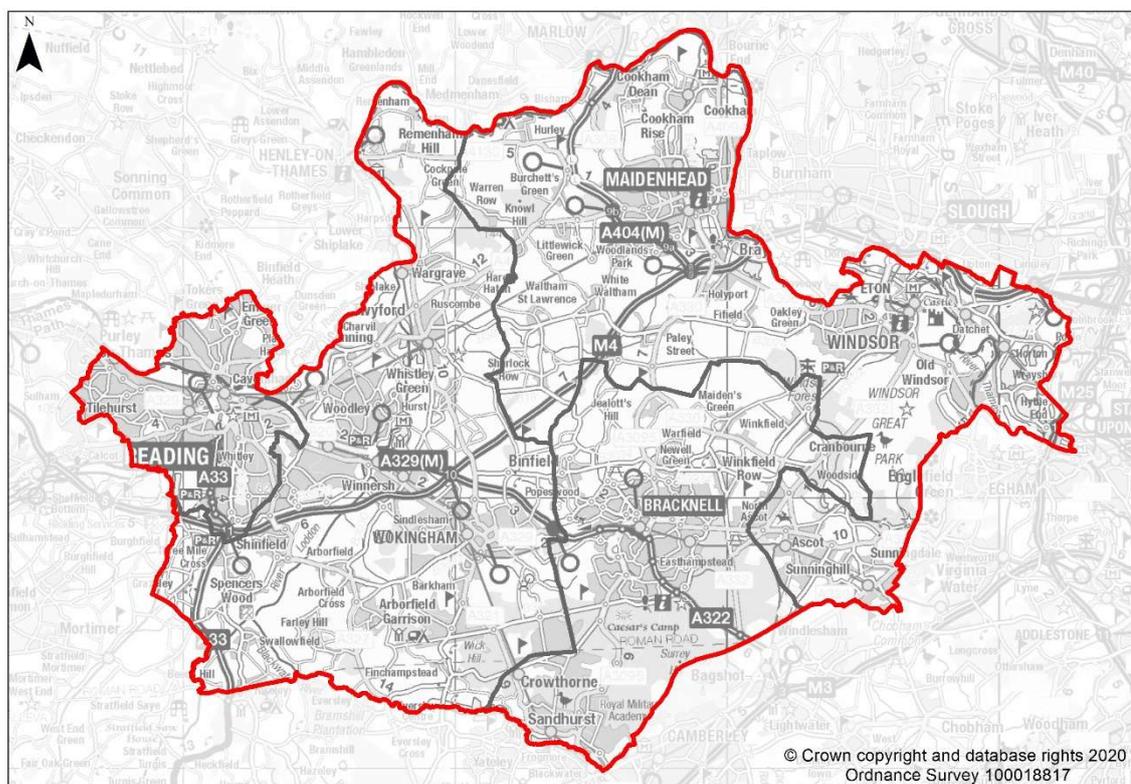
⁹ <http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN>

¹⁰ <http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

2. The Joint Minerals & Waste Plan

- 2.1 Bracknell Forest Council, Reading Borough Council, the Royal Borough of Windsor and Maidenhead and Wokingham Borough Council (collectively referred to as the 'Central & Eastern Berkshire Authorities') are working in partnership to produce a Joint Minerals & Waste Plan which will guide minerals and waste decision-making in the Plan area.
- 2.2 The Joint Minerals & Waste Plan will build upon the formerly adopted minerals and waste plans for the Berkshire area, and improve, update and strengthen the policies and provide details of strategic sites that are proposed to deliver the vision.
- 2.3 This is important as out of date plans limit the ability for planning authorities to enable the right development, in the right location, at the right time, and may lead to a greater number of planning applications determined at appeal.
- 2.4 Mineral and waste planning issues are most appropriately addressed jointly so that strategic issues can be satisfactorily resolved. The Plan will cover the minerals and waste planning authority administrative areas of Bracknell Forest, Reading, Windsor & Maidenhead and Wokingham (see Figure 2).

Figure 2: Central & Eastern Berkshire Authorities administrative areas



3. Screening for likely significant effects

- 3.1 The outcomes of the Regulation 19 screening for likely significant effects are documented in the screening report¹¹.
- 3.2 The Regulation 19 screening assessment process for Policies resulted in three policies screened in, requiring further consideration. A summary of screened in policies is provided in Appendix 1.
- 3.3 The Regulation 19 screening assessment of allocated sites has resulted in four minerals and waste sites being screened in, as having the potential to have a significant effect on European sites, with further analysis required. A summary of screened in allocated sites is provided in Appendix 2.
- 3.4 Policies and allocated sites that were screened in are subject to Appropriate Assessment as set out in Section 4.

4. Appropriate Assessment

- 4.1 Policies and allocated sites identified through screening as having the potential to have likely significant effects on European sites, either alone or in combination, which cannot be avoided by taking account of the measures described in paragraph 3.16 of the HRA Baseline and Methodology Report¹² or through application of the precautionary principle, need to be assessed against the conservation objectives of the European sites to demonstrate whether they would adversely affect the integrity of those sites.
- 4.2 Site integrity is defined as follows: “the coherence of its structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified”¹³.
- 4.3 The decision on whether site integrity could be adversely affected by Plan elements should focus on and be limited to the site’s Conservation Objectives. An outline of the steps in Appropriate Assessment are set out in Figure 3.

¹¹ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

¹² [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

¹³ Paragraph 20 of ODPM Circular 06/2005 on Biodiversity and Geological Conservation.

Figure 3: Outline of the steps in Appropriate Assessment



Adapted from The Habitats Regulations Assessment Handbook, www.dtapublications.co.uk © DTA Publications Limited (September 2013) All rights reserved.

- 4.4 The decision-making process under the Habitats Directive is underpinned by the precautionary principle, whereby the Competent Authority acts to avoid potential harm in the face of scientific uncertainty. If it is not possible in a 'likely significant effect' test to rule out a risk of significant effect on a European site on the basis of available evidence, then it should be assumed a risk may exist and needs to be dealt with at the next stage of Habitat Regulation Assessment. This precautionary approach should be taken at all stages of the assessment where faced with scientific uncertainty.
- 4.5 Notwithstanding this, it is recognised that plans may have effects on European sites that are not sufficiently understood for any reasonable scientific judgement to be made. In some cases a satisfactory assessment of effects may not be possible in light of the available information, technical know-how and ecological assessment techniques, and provided that it can

be demonstrated that elements of the Plan can be implemented in one or more ways without impacts on integrity to European sites, decisions with respect to the impacts can be devolved to a lower tier of decision making¹⁴. Where relevant and appropriate, any such effects on the European sites will be acknowledged throughout this assessment.

- 4.6 There is inherent uncertainty associated with some aspects of Habitats Regulations Assessment. This is particularly because the effects of the Plan will not normally be as clear as those of a specific planning application, for instance. The different ways that uncertainty in the plan assessment can be addressed are explained in the supporting Methodology and Baseline Report¹⁵. Where relevant and appropriate, aspects of potential uncertainty (and how these have been addressed) will be acknowledged throughout this assessment.

Amending the plan/option

- 4.7 As with the earlier screening stage, the Appropriate Assessment can be undertaken in an iterative way alongside the preparation and finalisation of the Plan. Potentially harmful policies and proposals should be removed from the Plan or modified to include measures (see below) to ensure that all development flowing from, or controlled by the Plan would not have an adverse effect on the integrity of a European site.
- 4.8 A European site's integrity depends on it being able to sustain its 'qualifying features' and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management.

Measures to ensure no adverse effects

- 4.9 The following measures may be necessary in order for the HRA to conclude no adverse effects on the integrity of a European site:
- Deletion of the policy or proposal that may cause the adverse effect;
 - Reduction in the scale of the potentially damaging provision;
 - Relocation or alteration of the spatial distribution of the potentially damaging provision;

¹⁴ Therivel, R., & Levett, R. Principles for good practice Appropriate Assessment of plans <http://www.levett-therivel.co.uk/AAguidelines.htm> (2009)

¹⁵ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

- Introduction of counter-acting measures, especially of a strategic nature, including the addition of appropriate caveats to policies.

4.10 Further detail on such measures is provided in Table 1.

Table 1: Examples of measures that may be utilised in order to ascertain no adverse effects

Measures	Examples that may apply to the Joint Minerals & Waste Plan
Deletion of the policy or proposal that may cause the adverse effect.	<ul style="list-style-type: none"> • Excluding the identified policy from the plan.
Reduction in the scale of the potentially damaging provision.	<ul style="list-style-type: none"> • Restricting the amount of material to be extracted (depth or volume, surface area). • Caveat policies to prevent changes to hydrological regime. • Restrict number or location of lorry movements.
Relocation or alteration of the spatial distribution of the potentially damaging provision.	<ul style="list-style-type: none"> • Create zones within each area of search which restrict the type of development. • Allow for seasonal restrictions to the spatial development of projects i.e. phasing. • Restrict the area that can be developed. • Modify boundaries of allocated sites to avoid or restrict levels of impact.
Introduction of counter-acting measures (avoidance, cancellation and reduction) including addition of appropriate caveats and policies.	<ul style="list-style-type: none"> • Inclusion of development criteria to support any identified Areas of Search/ strategic sites. • Code of good practice to avoid or reduce intrusion and disturbance. • Biodiversity Opportunity Areas (BOA), Biodiversity Action Plans (BAP), conservation objectives etc, used to devise restoration proposals. • Allow for seasonal restriction to operating hours. • Allow for provision of off-site mitigation provision.

Likelihood of Significant Effects

4.11 Determining likely significant effect requires a judgement as to whether a plan or elements therein will have a significant effect on European sites. In making this judgement, various factors relating to the type of development need to be considered against the conservation objectives of the European sites that may be affected. ‘Likely significant effect’ is, in this context, any effect that may reasonably be predicted as a consequence of a plan or

project that may affect the conservation objectives of the features for which the site was designated, but excluding trivial or inconsequential effects'¹⁶.

4.12 Types of effect and how they may arise through minerals and waste development are set out in detail in the HRA Baseline and Methodology Report¹⁷. When making such judgements it is important to consider the likely scale of these effects and whether such effects will be short or long-lived, in relation to the timing, duration or reversibility of the effect. A key outcome is whether these would result in a permanent reduction in habitat area or species populations.

4.13 Such judgements should be based on best available information (data), in order to provide a reasonable scientific certainty on the assumptions being made. Where such information is not available, other evidence, such as that relating to similar operations effecting sites with similar conservation objectives can be used.

Assessment of In-Combination Effects

4.14 It is a requirement of the Habitats Regulations that the potential for in-combination effects is considered. This may involve effects from allocated sites or policies within the Plan acting in combination with one another, or effects from allocated sites or policies acting in combination with other plans or projects.

4.15 The screening stages of the HRA confirmed that no policies, or elements of policies, in the Joint Minerals and Waste Plan would be likely to have significant effects in-combination with the effects of other Plan policies or development proposed elsewhere. However, all four screened-in minerals and waste allocated sites (Appendix 2) were considered to have the potential to give rise to in-combination effects, requiring further consideration.

¹⁶ Habitat Regulations Guidance Note 3 - The Determination of Likely Significant Effect under The Conservation (Natural Habitats &c.) Regulations 1994 - English Nature 1999

¹⁷ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

5. Appropriate Assessment and Effects on Site Integrity

Process undertaken to assess screened-in sites and policies

- 5.1 The Habitats Regulations¹⁸ require that the Appropriate Assessment stage of the HRA should consider the effects of the Plan (either alone or in combination with other projects or plans) on the integrity of European sites in relation to their conservation objectives, structure and function.
- 5.2 A European site's integrity depends on it being able to sustain its 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated) and to ensure their continued viability. A high degree of integrity is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management. Further information on relevant European sites' Conservation Objectives and vulnerabilities can be found in Appendix 3.
- 5.3 It should be noted that several allocated minerals and waste sites were removed from the Plan following the Regulation 18 HRA screening process and were not, therefore, subject to Regulation 19 screening. These are listed in Sections 6 and 7 of the Regulation 19 Screening Report¹⁹.
- 5.4 Allocated sites screened-in as a result of the Regulation 19 screening process (screening tables reproduced in Appendix 2) are:
- Minerals sites:*
- Horton Brook and Poyle Quarry Extension (MA 1); and
 - Poyle Quarry Extensions (MA 2).
- Waste sites:*
- Berkyn Manor Farm (WA 1); and
 - Horton Brook Quarry (WA 2).
- 5.5 A map showing the geographical locations of allocated minerals and waste sites together with boundary maps for each of the screened-in sites are provided in Appendix 4.
- 5.6 Policies screened in as a result of the Regulation 19 screening process (screening tables reproduced in Appendix 1) are:
- Minerals policies:*

¹⁸ [The Conservation of Habitats and Species Regulations 2017](#)

¹⁹ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

- Policy M4: Locations for sand and gravel extraction

Waste policies

- Policy W3: Waste capacity requirements
- Policy W4: Locations and sites for waste management

5.7 Policies M4 and W4 are subject to Appropriate Assessment based on the inclusion of screened-in allocated sites. Policy W3, however, includes waste capacity requirements that could potentially have significant effects on European sites across the Plan area.

5.8 The one European site that is scoped into the Appropriate Assessment due its potential to be subjected to significant effects by screened-in allocated minerals and waste sites and Policies M4 and W4 is the South West London Waterbodies SPA and Ramsar. All European sites within the Plan area are scoped into the Appropriate Assessment in relation to Policy W3.

5.9 An Appropriate Assessment has, therefore, been undertaken of those screened-in allocated sites and policies listed in paragraphs 5.4 and 5.6, above. These sites and policies, together with the relevant European sites that they could potentially affect, are set out in Table 2.

Table 2: European sites and relevant screened-in allocated sites and policies

European sites across the Plan area
Policy W3: Waste capacity requirements
South West London Waterbodies SPA and Ramsar
Sites allocated for minerals extraction
Horton Brook and Poyle Quarry Extension (MA 1)
Poyle Quarry Extensions (MA 2)
Sites allocation for waste management
Berkyn Manor Farm (WA 1)
Horton Brook Quarry (WA 2)
Policies
Policy M4: Locations for sand and gravel extraction
Policy W4: Locations and sites for waste management

5.10 When trying to reach conclusions about adverse effects on the integrity of European sites, particular consideration has been given to the possible pathways through which effects may be derived. A risk-based approach involving application of the precautionary principle was adopted in the assessment of adverse effects, such that an assessment of ‘no adverse effect on integrity’ was only made where it was considered very unlikely, based on current knowledge and information available.

5.11 Further detail about the proposed development of the screened-in minerals and waste sites is provided in Appendix 5.

5.12 Development Considerations have been prepared for each allocated minerals and waste site and listed in the Proposed Submission Plan²⁰. Those Development Considerations relevant to screened in sites have been reproduced in this document and listed in Appendix 6. These have been considered as part of the iterative HRA process and modified and added to, as necessary.

Assessing Effects on Site Integrity (Impact Pathways)

5.13 The Appropriate Assessment focuses on those impacts that are judged likely to have a significant effect on the qualifying features of a European site, or where uncertainty regarding this remained following the Screening stage. A conclusion needs to be reached regarding whether or not the development of a screened-in allocated site or implementation of a screened-in Policy in the Joint Minerals and Waste Plan (Proposed Submission) would be likely to have a significant effect on the integrity of any European site.

5.14 In order to reach a conclusion, consideration is given to whether the predicted impacts of the allocated site proposals / policies (either alone or in combination) have the potential to:

- Delay the achievement of conservation objectives for the European site(s).
- Interrupt progress towards the achievement of conservation objectives for the European site(s).
- Disrupt factors that help to maintain the favourable conditions of the European site(s).
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the European site(s).

In determining likely significant effect, both distance and impact pathway factors have been used.

5.15 The conservation objectives of each European site are generally to maintain the qualifying features in favourable condition (further information on Conservation Objectives can be found in Appendix 3 and the HRA Baseline and Methodology Report²¹).

Data sources used

²⁰ Central and Eastern Berkshire Joint Minerals and Waste Plan Proposed Submission Plan (July 2020).

²¹ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

- 5.16 For this Appropriate Assessment, significant GIS data relating to nature conservation interests, hydrology, geology, topography, transport and recreation was collated to support the assessment of the potential effects of the different types of minerals and waste sites proposed in different locations. Distance measurements between allocated sites and European sites were calculated using ArcGIS.
- 5.17 In addition, a number of other sources of information contributed to the assessment, including the Strategic Transport Assessment²²; HRA Baseline and Methodology Report²³; HRA Screening Report²⁴; Sustainability Appraisal Revised Baseline Report²⁵; Habitats Regulations and Air Quality Assessment Update for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan²⁶; Natural England Designated Sites View website²⁷; JNCC UK Protected Sites website²⁸; and Local Plans of relevant local planning authorities. More information about data sources used to inform judgements about each type of effect is provided below.

Assumptions used during Appropriate Assessment

Physical damage / loss of habitat

- 5.18 For direct physical damage or loss of habitat to occur at a European site, it is assumed that the minerals or waste development would need to extend within the boundary of the European site or into an off-site area which is known to be used by one or more of the qualifying species of that site, for example sites used by birds for roosting, foraging or breeding.
- 5.19 The potential for an adverse effect on integrity was also assumed if an allocated minerals or waste site is very close to a European site, e.g. adjacent or within 100m, as there would be a greater chance of potential edge effects e.g. habitat degradation from movement of machinery, and human trampling associated with after-uses.

²² Central and Eastern Berkshire Joint Minerals and Waste Plan Strategic Transport & Traffic Assessment June 2019 (V2) (Proposed Submission Plan)

²³ Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised (June 2017)

²⁴ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020)

²⁵ Sustainability Appraisal (incorporating Strategic Environmental Assessment): Revised Baseline Report July 2017

²⁶ Ricardo Energy and Environment (2018) Habitats Regulation and Air Quality Assessment Update. Report for Royal Borough of Windsor and Maidenhead

²⁷ <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

²⁸ <http://archive.jncc.gov.uk/default.aspx?page=4>

5.20 Where an allocated site is located within reasonably close proximity (up to 2.5km) of a European site with qualifying features which are transient/mobile species such as birds and bats, the potential for physical damage or loss to off-site habitat is highlighted. Specific locations of off-site breeding, foraging and roosting habitat areas or sites are, however, unknown for many of the qualifying bird species.

Indirect disturbance from noise, vibration and/or light pollution

5.21 Noise impacts are most likely to disturb bird and mammal species, potentially disrupting breeding/feeding/roosting, and are thus a key consideration where these are among the qualifying features of a European site. Noise can arise from construction activity, processing on a site or from traffic movements to/from a site. Artificial lighting at night (e.g. from flood or security lighting) is most likely to affect bat populations and other nocturnal animals, and therefore have an adverse effect on the integrity of European sites where bats or nocturnal animals are a qualifying feature.

5.22 Noise, vibration and lighting impacts are most likely to take place within a short distance from European sites. The three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity. On a precautionary basis, it has been assumed that these impacts may have a significant impact on European sites where they take place within 1km of the European site boundary or known areas of important supporting habitat (i.e. functional land).

Changes to water levels and water quality

5.23 An adverse effect on the integrity of a European site from changes to hydrological regimes was assumed to be most likely where the qualifying features of that site are sensitive to hydrological changes. This is most likely to include sites where qualifying features include aquatic habitats and species or heathland habitats known to be particularly sensitive to such changes and sites hydrologically connected to the potential mineral and waste sites, via surface or groundwater pathways. In such cases, adverse effects were then assumed to be particularly likely where the minerals or waste site overlies an aquifer in common with a European site or lies on or near to a river flowing towards a European site.

5.24 However, there is considerable uncertainty in relation to assessing changes to hydrology at European sites due to the lack of specific detail relating to the proposed minerals and waste developments (which will be provided at the planning application stage), and because information relating to actual groundwater depths, flow and gradient (and hence hydrological pathway) may

not be available, and is considered a premature level of detail at this strategic level²⁹.

5.25 Despite the lack of detailed hydrological data associated with the site allocations, the likelihood of adverse effect on the integrity of European sites through changes to hydrological regimes is also dependent on the nature of proposed activities at the allocated site, e.g. whether minerals processing will take place on site or elsewhere will affect the requirement for water abstraction, and if extraction takes place above the water table then there would be a lower likelihood of adverse effects on water levels.

5.26 For minerals and waste developments, Defra guidelines³⁰ recommend a distance of 3km for any discharges upstream of a European and Ramsar site when released into a watercourse as representing the worst case scenario for any conceivable output of any facility developed within the Plan.

5.27 Sand and gravel extraction will be the main form of mineral workings within the Plan area. 2km is a realistic maximum distance to use with regard to potential impacts of changes in groundwater flows or dewatering from mineral workings on habitats in their vicinity, following good practice guidelines³¹.

Air pollution

5.28 There has been significant recent research and guidance on the effects of air pollutants, particularly NOx on protected habitats. The key research and findings are outlined in Section 3 of the HRA Screening Report³².

5.29 In the 2018 'Habitats Regulations and Air Quality Assessment update' for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan³³, a site screening exercise was undertaken by considering the features of each identified Natura 2000 site and identifying potential sensitivity to air pollution impacts.

²⁹ Guideline for Good practice Appropriate assessment of plans under Article 6(3) Habitats Directive- International Workshop on Assessment of Plans under the Habitat Directive December 2009

³⁰ [Defra \(2003\) Applying the requirements of the Habitats Regulations and the Wildlife and Countryside Act to applications for PPC Permits.](#)

³¹ Thompson, A. et al (1998) Reducing the effects of surface mineral workings on the water environment: a guide to good practice.

³² Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

³³ Ricardo Energy and Environment (2018) Habitats Regulation and Air Quality Assessment Update. Report for Royal Borough of Windsor and Maidenhead.

- 5.30 In drafting that report, consideration was also given to whether potential impacts on ‘functional linked land’ should be considered; that is, a zone surrounding the designated site which plays a role in supporting the habitats and/or species for which each site was designated. Natural England advised that, in view of the nature of the specific habitat sites under consideration in the study, and their qualifying features, there was no requirement to consider functionally linked land in an assessment of potential air quality impacts of the RBWM Local Plan³⁴.
- 5.31 In relation to the likely effects of the allocations on European sites in this assessment, traffic related air pollution was assessed by examining the proximity of the key routes to and from the minerals and waste sites to those European sites which are vulnerable to increased air pollution. The Strategic Transport Assessment³⁵ details the proposed routes to and from each site and presents existing and projected vehicle numbers along these routes, including an estimate of likely vehicle movements arising from the allocated sites.
- 5.32 Based on the Department of Transport’s Analysis Guidance³⁶, Highways Agency guidance³⁷ and the Natural England literature review³⁸ a distance of 200 metres from a road was applied, such that where a European site is within 200m of the strategic road network, and where the road in question is likely to be a key route for transporting minerals and/or waste, a potential adverse effect is highlighted if the increase in traffic volumes would be of a scale likely to have an adverse effect on the European site in question. Thresholds for changes in traffic volume above which significant impacts on local air quality would be likely are set out in the Design Manual for Road and Bridges³⁹. The thresholds are: a change in daily traffic flows of 1000 AADT (Annual Average Daily Traffic), or in Heavy Duty Vehicle (HDV) flows of 200 AADT.
- 5.33 Judgements about the likelihood of adverse effects were supplemented by information about current level of air pollution at the European sites (from APIS data⁴⁰) and Natural England assessments of SSSI condition⁴¹ where

³⁴ [Air Quality Assessment for RBWM BLPSVPC Review \(20 March 2020\)](#)

³⁵ Central and Eastern Berkshire Joint Minerals and Waste Plan Transport Assessment Proposed Submission (July 2020)

³⁶ Transport Analysis Guidance Unit A3 – Environmental Impact Appraisal (Department for Transport, 2015) - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/638648/TAG_unit_a3_envir_imp_app_dec_15.pdf

³⁷ Design Manual for Roads and Bridges, Volume 11. Highways Agency. 2003

³⁸ Natural England (2016) The ecological effects of air pollution from road transport: an updated review (NECR199).

³⁹ Design Manual for Roads and Bridges, (DMRB) Volume 11 Section 3 Part 1 (HA 207/07) Environmental assessment techniques. Air quality

⁴⁰ UK Air Pollution Information System

⁴¹ <http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>

information was available in relation to air quality. Where a European site already has excessive levels of pollutants, or is already being affected by air pollution, it was considered likely that an increase in HDV flows of 200 AADT along a route within 200m of the European site would have an adverse impact on the integrity of that site.

Dust

- 5.34 Emissions of dust to air from minerals and waste sites can occur during the preparation of the land, extraction, materials processing, handling and transportation of materials, and can vary day to day. Dust arising from mineral extraction or waste management/landfilling and deposited on ground or water has the potential to smother plant species or contaminate the ground or receiving waters depending on the volume and/or frequency of dust deposition and any contaminants contained within it.
- 5.35 According to guidance on the assessment of mineral dust impacts for planning prepared by the Institute of Air Quality Management⁴², adverse dust impacts from sand and gravel sites are uncommon beyond 250m and from hard rock quarries, beyond 400m, measured from the nearest dust generating activities. If there are no relevant receptors within 1km of the operations, it is considered that irrespective of the nature, size and operation of the site, the risk of an impact is likely to be “negligible” and any resulting effects are likely to be ‘not significant’. For the purposes of this assessment, applying the precautionary principle, those allocated sites that are located beyond 1km from a European site will be considered unlikely to contribute to significant dust impacts.
- 5.36 National Planning Practice Guidance (PPG) states that “Where dust emissions are likely to arise, mineral operators are expected to prepare a dust assessment study, which should be undertaken by a competent person/organisation with acknowledged experience of undertaking this type of work⁴³.”

Soil Contamination

- 5.37 Soil contamination at minerals sites can result from various onsite activities including industrial processes (e.g. those involving fuels, oils and solvents) and from landfill site operation (e.g. as a result of leachate). The potential for soil contamination to occur is highlighted where allocated sites are within close proximity (e.g. 500m) of a European site with qualifying features that are

⁴² IAQM (2016) Guidance on the Assessment of Mineral Dust Impacts for Planning. Institute of Air Quality Management, London.

⁴³ [Planning Practice Guidance Paragraph: 023 Reference ID: 27-023-20140306](#)

sensitive to this type of impact. However, it has been assumed that environmental permitting requirements, such as those requiring the appropriate disposal of waste water produced onsite, would mean that the likelihood of soil contamination occurring would be extremely low.

Invasive Species / Vermin / Litter

5.38 The spread of invasive non-native species (INNS) is an issue particularly associated with mineral extraction but could also result from compost waste sites where garden waste is being processed. Wetland receptors are particularly vulnerable to the spread of invasive aquatic and terrestrial plants, such as Japanese knotweed. Vermin and litter problems are particularly associated with waste management operations. The strict management and control of INNS, vermin and litter on minerals extraction and waste management sites is enabled through the imposition of planning conditions and environmental controls at the planning application and environmental permitting stages, together with appropriate monitoring and enforcement. These controls are sufficient to make significant effects on European sites unlikely.

Physical Infrastructure

5.39 As road linkages across the Plan area are considered sufficient, such that it is unlikely that major road developments will be required to service new waste and mineral facilities, it is considered that appropriate control of built infrastructure at the planning application stage is sufficient to make significant effects on European sites, unlikely.

Recreational Displacement

5.40 Minerals and waste development may lead to recreation related effects depending on the proximity of such sites to Public Rights of Way (PRoW) and other recreation-related assets. For example, where there are one or more PRoWs or recreation-related assets, running through or adjacent to the site, recreation users may be displaced, which could lead to increases in visitor pressure on nearby European sites, with consequent short to medium term adverse effects.

5.41 Careful diverting of affected PRoW to maintain access connections local to the development site may negate or minimise recreational displacement when this is undertaken with due regard to relevant green infrastructure / access strategies. Where sites are to be restored for recreation-related uses, this may provide mitigation against the effects of visitor pressure at nearby European

sites by providing alternative natural greenspace and access networks in the long-term.

In-combination effects

5.42 If there is more than one existing minerals or waste site as well as the newly allocated site, or an area allocated for housing or employment land in a local plan within proximity of a European site, it is considered likely that an in-combination effect could occur with respect to physical loss/damage to habitat, non-physical disturbance, changes to hydrology, air pollution, dust and/or soil contamination.

Potential effects on site integrity identified

5.43 The potential effects of screened-in allocated sites on the integrity of European sites are set out in Tables 3 - 6 below. The potential effects of screened-in policies are set out in paragraph 5.44 onwards.

Table 3: Horton Brook and Poyle Quarry Extension (MA 1)

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

Potential Impacts	European sites potentially affected and qualifying features	Could the development have an adverse effect on any European site integrity either alone or in combination with other plans or projects?	Mitigation/measures	If mitigation / measures are implemented, can adverse effects on the European site be ruled out?
<p>Physical disturbance / loss of habitat</p> <p>Minerals development can lead to loss of habitat / habitat fragmentation as a result of land take and associated infrastructure development.</p>	<p>South West London Waterbodies SPA / Ramsar</p> <ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) <p><i>Horton Brook and Poyle Quarry Extension (MA 2) is 0.75 km (closest part of site) from the South West London waterbodies SAP / Ramsar</i></p>	<p>The main issue relates to the proximity of the site to the SPA. The field along the eastern boundary of the site, though presenting little intrinsic biodiversity interest, provides moderate suitability (large, open and arable) for foraging over-wintering birds such as waders, brent geese and ducks, and could potentially be considered supporting SPA habitat. It is unclear at this stage whether the timing of permitted extraction works at Poyle Quarry (on the adjacent field) would render the field unsuitable as SPA habitat.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration physical disturbance or loss of habitats will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. <p><i>(The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p>	<p>YES</p>
<p>Noise pollution and vibration</p> <p>Noise and vibration</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of noise pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European</p>	<p>YES</p>

<p>effects can be caused by activities associated with sand and gravel extraction during preparatory works and operation of the site.</p>			<p>Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable noise...' <i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that 'applications would also be expected to be accompanied by an Environmental Statement which would include details of the site's impact on noise...' <i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for this allocation have been designed to ensure that the particular consideration noise pollution and vibration will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration following the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of indirect impacts such as air and noise pollution. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. <p><i>('The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.')</i></p>	
<p>Light pollution</p> <p>Light pollution can be caused by artificial lighting on site as well as vehicle traffic movements to and from and within the site.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of light pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p>	<p>YES</p>

			<p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not cause unacceptable lighting. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for this allocation have been designed to ensure that the particular consideration light pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	
<p>Changes to water levels</p> <p>Changes in the movement of groundwater flows can result in the drying out of certain sites, changing vegetation communities, concentrating contaminants and reduce wetland habitats ability to support flora and fauna. Alternatively, changes in groundwater flows can result in saturation or flooding, or changes in water chemistry, which similarly can effect habitat and species composition.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in local hydrology. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not ...cause unacceptable risk to the quantity of water resources; and cause changes to groundwater and surface water levels which would result in unacceptable impacts on: adjoining land; potential groundwater resources; and the potential yield of groundwater resources, river flows or natural habitats’. The policy also requires that ‘where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation.</p>	<p>YES</p>

			<p><i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of change to water level will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Changes in water quality</p> <p>Water pollution can result in a number of detrimental impacts on flora and fauna in waterbodies, from direct effects, eutrophication, sedimentation, changes to species composition, including impacts on waterfowl. Sedimentation can also affect flow conveyance (potentially increasing flood risk).</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in water quality from a range of pollution sources. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to ...water (above appropriate standards).</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area.</p> <p><i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p>	<p>YES</p>

			<p>Policy DM11: Water Resources requires that development does not result in the deterioration of the physical state, water quality or ecological status of any water resource and waterbody including river, streams, lakes, ponds, groundwater source protection zones and groundwater aquifers. The policy also requires that 'where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water quality will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Air pollution</p> <p>Air pollution can result from vehicle traffic movements to and from minerals sites, and by emissions from on-site activities.</p>		<p>In the 'Habitats Regulations and Air Quality Assessment update' for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan⁴⁴, detailed in the HRA Screening Report, a thorough check of key documents relating to the South West London Waterbodies SPA and Ramsar site and their associated constituent SSSIs</p>	<p>Nevertheless, Policy DM2: Climate Change – Mitigation and Adaption states that minerals and waste development will be supported that “contributes towards mitigating the causes of climate change by... being located and designed to encourage the sustainable use of resources; and... helps to reduce greenhouse gas emissions. Furthermore, that “minerals and waste development proposals will be supported by a Climate Change Assessment, which demonstrates how these opportunities have been considered and, where possible, incorporated.”</p>	<p>YES</p>

⁴⁴ Ricardo Energy and Environment (2018) Habitats Regulation and Air Quality Assessment Update. Report for Royal Borough of Windsor and Maidenhead.

		<p>was carried out. The conclusion of this was that the site has no sensitivity to air quality impacts and was therefore excluded from that modelling study. This includes any potential functional habitat for the site.</p> <p>Additionally, the distance of the allocated minerals site is significantly above the indicative threshold of 200m for the consideration of likely significant effects from traffic related air pollution.</p> <p>In relation to the strategic road network (SRN), the Strategic Transport & Traffic Assessment⁴⁵, concludes that Horton Brook and Poyle Quarry Extension (MA 1) would represent less than 1% increase in HGV traffic on the SRN.</p>	<p><i>[Policy wording significantly modified following the initial screening, including introduction of the requirement for applicants to submit a Climate Change Assessment.]</i></p> <p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to the atmosphere (above appropriate standards).</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that 'applications would also be expected to be accompanied by an Environmental Statement which would include details of the site's impact on air quality...'</p> <p><i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of change to air pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of indirect impacts such as air and noise pollution. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. 	
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⁴⁵ Central and Eastern Berkshire Joint Minerals and Waste Plan Strategic Transport & Traffic Assessment June 2019 (V2) (Proposed Submission Plan)

			<p>(<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>)</p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Recreation-related impacts</p> <p>Recreation can be displaced on to areas vulnerable to disturbance or pressure by changes to the accessibility of footpaths and cycleways or areas of permissive access.</p>		<p>The majority of the site consists of a bridleway (part of the Colne Valley Way) providing public access as part of a wider access network. Removal of the Bridleway could displace recreational use in such a way as to increase recreational pressure on the European site.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM8: Restoration of Minerals and Waste Developments requires that 'the restoration of minerals and waste developments should reinforce or enhance the quality and character of the local area and should contribute to the delivery of local objectives for community use where these are consistent with the Development Plan, and that 'the restoration of mineral extraction and landfill sites should be phased throughout the life of the development'. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of recreation-related impacts will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • The Colne Valley Way Trail will need to be temporarily diverted and re-established as part of the restoration and applicants will need to work closely with the relevant authorities and the Colne Valley Regional Park. • The bridleway route and restoration of the site must seek to improve connectivity and enhance the local public access network and give 	<p>YES</p>

			<p>consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement⁴⁶. (<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>)</p>	
<p>Dust</p> <p>Dust deposition on ground and water from operational activities can lead to contamination at nearby European sites</p>		<p>The qualifying features of the SAC would be vulnerable to dust deposition from sand and gravel extraction. The effects of dust deposition will be dependent on wind direction, methods of site working and site operational controls.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable dust...'. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of dust will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of the indirect impacts such as air and noise pollution. • A Transport Assessment or Statement is required. • An HGV Routing Agreement will also be required. <p>(<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>)</p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	<p>YES</p>

⁴⁶ Joint Connectivity Statement between the Colne Valley Regional Park, Slough Borough Council, RBWM and the Buckinghamshire authorities.

			<p>Dust suppression will be controlled by a specific planning condition imposed on any planning permission.</p> <p>Where dust emissions are likely to arise, mineral operators are expected to prepare a dust assessment study, which should be undertaken by a competent person/organisation with acknowledged experience of undertaking this type of work.⁴⁷</p>	
<p>Soil contamination</p> <p>Soil contamination can result from various on-site activities including industrial processes (e.g. those involving fuels, oils and solvents)</p>		<p>The development of this site is unlikely to give rise to soil contamination. Nevertheless, leaching or spillage could occur. Given the size of the site, however, and potential for this to happen, this is considered unlikely to be significant.</p>	<p>Nevertheless, Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM13: High Quality Design of Minerals and Waste Development states that the design of appropriate facilities for minerals and waste development should protect and, wherever possible, enhance soils.</p> <p><i>[Improvements to the policy following the initial Screening stage]</i></p> <p>Development Considerations for this allocated site have been designed to ensure that the particular consideration of change to soil contamination will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	<p>YES</p>

⁴⁷ [Planning Practice Guidance Paragraph: 023 Reference ID: 27-023-20140306](#)

Table 4: Poyle Quarry Extensions (MA 2)

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

Potential Impacts	European sites potentially affected and qualifying features	Could the development have an adverse effect on any European site integrity either alone or in combination with other plans or projects?	Mitigation/measures	If mitigation / measures are implemented, can adverse effects on the European site be ruled out?
<p>Physical disturbance / loss of habitat</p> <p>Minerals development can lead to loss of habitat / habitat fragmentation as a result of land take and associated infrastructure development.</p>	<p>South West London Waterbodies SPA / Ramsar</p> <ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) <p><i>Poyle Quarry Extensions (MA 2) are 0.51 km (closer southern extension) from the South West London waterbodies SAP / Ramsar</i></p>	<p>Although the site is not located within the SPA, the possible use of the site as off-site foraging habitat for qualifying bird species of the nearby SPA needs to be considered. The site itself does not currently support habitat that would support foraging of qualifying bird species, and is therefore not likely to lead to significant effect. Nevertheless, there is the possibility that operating this site could impact other areas used by qualifying species. There is currently uncertainty in relation to sites outside the SPA/Ramsar that may be used by qualifying species.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified by the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration physical disturbance or loss of habitats will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	<p>YES</p>
<p>Noise pollution and vibration</p> <p>Noise and vibration effects can be caused</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of noise pollution and vibration at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats</p>	<p>YES</p>

<p>by activities associated with sand and gravel extraction during preparatory works and operation of the site.</p>			<p>Regulations. <i>[Policy wording modified by the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable noise...vibration...' <i>[Wording improved since the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that 'applications would also be expected to be accompanied by an Environmental Statement which would include details of the site's impact on noise...' <i>[Significant improvements to policy and supporting wording since initial Screening stage]</i></p> <p>Development Considerations for this allocation have been designed to ensure that the particular consideration noise pollution and vibration will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of indirect impacts such as air and noise pollution. • Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. <p><i>('The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.')</i></p>	
<p>Light pollution</p> <p>Light pollution can be caused by artificial lighting on site as well as vehicle traffic movements to and from and within the</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of light pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse</i></p>	<p>YES</p>

site.			<p><i>effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not cause unacceptable lighting. <i>[Wording improved since the initial Screening stage]</i></p> <p>Development Considerations for this allocation have been designed to ensure that the particular consideration light pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	
<p>Changes to water levels</p> <p>Changes in the movement of groundwater flows can result in the drying out of certain sites, changing vegetation communities, concentrating contaminants and reduce wetland habitats ability to support flora and fauna. Alternatively, changes in groundwater flows</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in local hydrology. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified by the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved since the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not</p>	<p>YES</p>

<p>can result in saturation or flooding, or changes in water chemistry, which similarly can affect habitat and species composition.</p>			<p>...cause unacceptable risk to the quantity of water resources; and cause changes to groundwater and surface water levels which would result in unacceptable impacts on: adjoining land; potential groundwater resources; and the potential yield of groundwater resources, river flows or natural habitats'. The policy also requires that 'where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of change to water level will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Both sites partly within Flood Zones 2 and/or 3. • The site is not located within a Source Protection Zone (SPZ) but the closest SPZ is located to the west of the site approximately under 1km away. • Proximity to major / minor aquifers, in addition to Source Protection Zones. A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. • Consideration of the River Colne and its corridor. (<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>) <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Changes in water quality</p> <p>Water pollution can result in a number of detrimental impacts on flora and fauna in waterbodies, from direct effects,</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in water quality from a range of pollution sources. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally</i></p>	<p>YES</p>

<p>eutrophication, sedimentation, changes to species composition, including impacts on waterfowl. Sedimentation can also affect flow conveyance (potentially increasing flood risk).</p>			<p><i>designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to ...water (above appropriate standards). <i>[Wording improved since the initial Screening stage]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved since the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not result in the deterioration of the physical state, water quality or ecological status of any water resource and waterbody including river, streams, lakes, ponds, groundwater source protection zones and groundwater aquifers. The policy also requires that 'where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water quality will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area. • Both sites partly within Flood Zones 2 and/or 3. • The site is not located within a Source Protection Zone (SPZ) but the closest SPZ is located to the west of the site approximately under 1km away. • Proximity to major / minor aquifers, in addition to Source Protection Zones. A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. 	
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			<ul style="list-style-type: none"> • Consideration of the River Colne and its corridor. (<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>) <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Air pollution</p> <p>Air pollution can result from vehicle traffic movements to and from minerals sites, and by emissions from on-site activities.</p>		<p>In the 'Habitats Regulations and Air Quality Assessment update' for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan⁴⁸, detailed in the HRA Screening Report, a thorough check of key documents relating to the South West London Waterbodies SPA and Ramsar site and their associated constituent SSSIs was carried out. The conclusion of this was that the site has no sensitivity to air quality impacts and was therefore excluded from that modelling study. This includes any potential functional habitat for the site.</p> <p>Additionally, the distance of the allocated minerals site is significantly above the indicative threshold of 200m for the consideration of likely significant effects from traffic related air pollution.</p> <p>In relation to the strategic road network (SRN), the Strategic Transport & Traffic Assessment⁴⁹, concludes that Poyle Quarry Extensions (MA 2) would represent less than 1% increase in HGV traffic on the SRN and furthermore concludes that as MA 2 and CEB25 share similar routeing strategies to junction 14 of the M25, there would be a cumulative impact, but that this combined impact would represent less than 0.1% of daily traffic along the route.</p>	<p>Nevertheless, Policy DM2: Climate Change – Mitigation and Adaption states that minerals and waste development will be supported that “contributes towards mitigating the causes of climate change by... being located and designed to encourage the sustainable use of resources; and... helps to reduce greenhouse gas emissions. Furthermore, that “minerals and waste development proposals will be supported by a Climate Change Assessment, which demonstrates how these opportunities have been considered and, where possible, incorporated.” <i>[Policy wording significantly modified since initial screening, including introduction of the requirement for applicants to submit a Climate Change Assessment.]</i></p> <p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to the atmosphere (above appropriate standards). <i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that ‘applications would also be expected to be accompanied by an Environmental Statement which would include details of the site’s impact on air quality...’ <i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of change to air pollution will be fully</p>	<p>YES</p>

⁴⁸ Ricardo Energy and Environment (2018) Habitats Regulation and Air Quality Assessment Update. Report for Royal Borough of Windsor and Maidenhead.

⁴⁹ Central and Eastern Berkshire Joint Minerals and Waste Plan Transport Assessment Proposed Submission Plan (July 2020).

			<p>addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of indirect impacts such as air and noise pollution. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. <p>(<i>'The Asterix for each consideration denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>)</p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Recreation-related impacts</p> <p>Recreation can be displaced on to areas vulnerable to disturbance or pressure by changes to the accessibility of footpaths and cycleways or areas of permissive access.</p>		<p>No footpaths or other recreational facilities will be directly affected by the allocated development uses on these extension sites. There is, however, the possibility that other local footpaths could be made less desirable by minerals extraction activity at these locations.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM8: Restoration of Minerals and Waste Developments requires that 'the restoration of minerals and waste developments should reinforce or enhance the quality and character of the local area and should contribute to the delivery of local objectives for community use where these are consistent with the Development Plan, and that 'the restoration of mineral extraction and landfill sites should be phased throughout the life of the development'.</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of recreation-related impacts will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration following the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas 	<p>YES</p>

			<p>(SPA) and Ramsar*.</p> <ul style="list-style-type: none"> • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p>	
<p>Dust</p> <p>Dust deposition on ground and water from operational activities can lead to contamination at nearby European sites</p>		<p>The qualifying features of the SAC would be vulnerable to dust deposition from sand and gravel extraction. The effects of dust deposition will be dependent on wind direction, methods of site working and site operational controls.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable dust...'. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of dust will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(The Asterix for denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p> <p>Dust suppression will be controlled by a specific planning condition</p>	<p>YES</p>

			<p>imposed on any planning permission.</p> <p>Where dust emissions are likely to arise, mineral operators are expected to prepare a dust assessment study, which should be undertaken by a competent person/organisation with acknowledged experience of undertaking this type of work.⁵⁰</p>	
<p>Soil contamination</p> <p>Soil contamination can result from various on-site activities including industrial processes (e.g. those involving fuels, oils and solvents)</p>		<p>The development of this site is unlikely to give rise to soil contamination. Nevertheless, leaching or spillage could occur. Given the size of the site, however, and potential for this to happen, this is considered unlikely to be significant.</p>	<p>Nevertheless, Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM13: High Quality Design of Minerals and Waste Development states that the design of appropriate facilities for minerals and waste development should protect and, wherever possible, enhance soils.</p> <p><i>[Improvements to the policy following the initial Screening stage]</i></p> <p>Development Considerations for this allocated site have been designed to ensure that the particular consideration of change to soil contamination will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	<p>YES</p>

⁵⁰ [Planning Practice Guidance Paragraph: 023 Reference ID: 27-023-20140306](#)

Table 5: Berkyn Manor Farm (WA 1)

Green waste and / or energy recovery: *Category 1: Open sites or ancillary open areas (possibly biological treatment); Category 2: Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment); Category 3: Enclosed industrial premises (small scale); Category 4: Enclosed industrial premises (large scale).*

Potential Impacts	European sites potentially affected and qualifying features	Could the development have an adverse effect on any European site integrity either alone or in combination with other plans or projects?	Mitigation/measures	If mitigation / measures are implemented, can adverse effects on the European site be ruled out?
<p>Physical disturbance / loss of habitat</p> <p>New waste sites can lead to loss of habitat / habitat fragmentation as a result of land take and associated infrastructure development.</p>	<p>South West London Waterbodies SPA / Ramsar</p> <ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) <p><i>Berkyn Manor Farm (WA 1) is 0.57 km from the South West London waterbodies SAP / Ramsar</i></p>	<p>Although the site is not located within the SPA, the possible use of the site as off-site foraging habitat for qualifying bird species of the nearby SPA needs to be considered. The site itself does not currently support habitat that would support foraging of qualifying bird species and is therefore not likely to lead to significant effect. Nevertheless, there is the possibility that operating this site could impact other areas used by qualifying species. There is currently uncertainty in relation to sites outside the SPA/Ramsar that may be used by qualifying species.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of physical disturbance/loss of habitat will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of hydrological impacts. • Consideration of the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area in restoration or operational landscaping. • The restoration of the site must give consideration of the Colne and Crane Valleys Green Infrastructure Strategy (2019)... • Retention and buffering of hedgerows within the site. • Existing vegetation should be conserved and protected and additional buffer planting established to all boundaries. • Enhanced screening is required. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment 	<p>YES</p>

			<p>is required.</p> <ul style="list-style-type: none"> • (<i>The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.</i>) 	
<p>Noise pollution and vibration</p> <p>Noise and vibration effects can be caused by activities associated with the operation of machinery and / or extra traffic movements to and from the facility.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of noise pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable noise...'</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that 'applications would also be expected to be accompanied by an Environmental Statement which would include details of the site's impact on noise...'</p> <p><i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of noise pollution and vibration will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and buffering of hedgerows within the site. • Existing vegetation should be conserved and protected and additional buffer planting established to all boundaries. • Enhanced screening is required. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required (or maintain existing). <p><i>(The Asterix denotes that development cannot be permitted if it may</i></p>	<p>YES</p>

			<i>negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.')</i>	
<p>Light pollution</p> <p>Light pollution can be caused by artificial lighting on site as well as vehicle traffic movements to and from and within the site.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of light pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not cause unacceptable lighting.</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of light pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and buffering of hedgerows within the site. • Existing vegetation should be conserved and protected, and additional buffer planting established to all boundaries. • Enhanced screening is required. <p><i>(The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p>	YES
<p>Changes to water levels</p> <p>Activities associated with waste sites can affect water levels in a variety of ways, including drying, flooding / storm water,</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in local hydrology. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on</i></p>	YES

<p>changes in water level and stability, changes in surface water flow and groundwater flow and loss of groundwater storage. These changes can result from construction and operational activities.</p>			<p><i>internationally designated sites.]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not ...cause unacceptable risk to the quantity of water resources; and cause changes to groundwater and surface water levels which would result in unacceptable impacts on: adjoining land; potential groundwater resources; and the potential yield of groundwater resources, river flows or natural habitats'. The policy also requires that 'where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water levels will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of hydrological impacts • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. • Proximity to major/minor aquifers, in addition to Source Protection Zones. (<i>'The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.'</i>) <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Changes in water quality</p> <p>Water quality can be</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in water quality from a range of pollution sources. There is current uncertainty in</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European</p>	<p>YES</p>

<p>affected by waste management during preparatory works, operational activities for example as a result of ground investigation works, or industrial processes within a site.</p>		<p>relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to ...water (above appropriate standards). <i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not result in the deterioration of the physical state, water quality or ecological status of any water resource and waterbody including river, streams, lakes, ponds, groundwater source protection zones and groundwater aquifers. The policy also requires that 'where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water quality will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site and hydrological connectivity at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts to Wraysbury Reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Consideration of hydrological impacts. 	
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			<ul style="list-style-type: none"> • Considerations of the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals. • A Flood Risk Assessment and Hydrological / Hydrogeological Assessment is required. • Proximity to major / minor aquifers, in addition to Source Protection Zones. (<i>The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.</i>) <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Air pollution</p> <p>Air pollution can result from vehicle traffic movements to and from waste management sites, and by emissions from on-site activities.</p>		<p>In the 'Habitats Regulations and Air Quality Assessment update' for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan, detailed in the HRA Screening Report, a thorough check of key documents relating to the South West London Waterbodies SPA and Ramsar site and their associated constituent SSSIs was carried out. The conclusion of this was that the site has no sensitivity to air quality impacts and was therefore excluded from that modelling study. This includes any potential functional habitat for the site.</p> <p>Additionally, the distance of the allocated minerals site is significantly above the indicative threshold of 200m for the consideration of likely significant effects from traffic related air pollution.</p> <p>In relation to the strategic road network (SRN), the Strategic Transport & Traffic Assessment, concludes that Berkyn Manor Farm would represent less than 1% increase in HGV traffic on the SRN.</p>	<p>Nevertheless, Policy DM2: Climate Change – Mitigation and Adaption states that minerals and waste development will be supported that “contributes towards mitigating the causes of climate change by... being located and designed to encourage the sustainable use of resources; and... helps to reduce greenhouse gas emissions. Furthermore, that “minerals and waste development proposals will be supported by a Climate Change Assessment, which demonstrates how these opportunities have been considered and, where possible, incorporated.”</p> <p><i>[Policy wording significantly modified following the initial screening, including introduction of the requirement for applicants to submit a Climate Change Assessment.]</i></p> <p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to the atmosphere (above appropriate standards).</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that ‘applications would also be expected to be accompanied by an Environmental Statement which would include details of the site’s impact on air quality...’</p> <p><i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of air pollution will be fully addressed</p>	<p>YES</p>

			<p>at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and buffering of hedgerows within site. • Retention and buffering of hedgerows within the site. • Existing vegetation should be conserved and protected, and additional buffer planting established to all boundaries. • Enhanced screening is required. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Recreation-related impacts</p> <p>Recreation can be displaced on to areas vulnerable to disturbance or pressure by changes to the accessibility of footpaths and cycleways or areas of permissive access.</p>	<p>A footpath borders part of the western boundary of the allocated site. As the path is part of an existing access track it is unlikely that the path would be physically affected by the allocation, but additional vehicle activity on the track may create some recreational displacement.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM8: Restoration of Minerals and Waste Developments requires that ‘the restoration of minerals and waste developments should reinforce or enhance the quality and character of the local area and should contribute to the delivery of local objectives for community use where these are consistent with the Development Plan, and that ‘the restoration of mineral extraction and landfill sites should be phased throughout the life of the development’.</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>The Restoration Study that accompanies the Proposed Submission Plan Consultation Paper includes a section on recreation and amenity. Sites restored to include recreational facilities provide mitigation for the effects of</p>	<p>YES</p>	

			<p>recreational displacement by providing alternative open space and/or recreational access routes.</p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of recreation-related impacts will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • The restoration of the site must give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement⁵¹ <p><i>(The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.)</i></p>	
<p>Dust</p> <p>Dust deposition on ground and water from operational activities can lead to contamination at nearby European sites</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of dust deposition from waste management operations at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable dust...'. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of dust will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment include (<i>significant improvements / additions have been made to the Development Consideration since the initial</i></p>	<p>YES</p>

⁵¹ Joint Connectivity Statement between the Colne Valley Regional Park, Slough Borough Council, RBWM and the Buckinghamshire authorities.

			<p>Screening stage):</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and buffering of hedgerows within site. • Retention and buffering of hedgerows within the site. • Existing vegetation should be conserved and protected, and additional buffer planting established to all boundaries. • Enhanced screening is required. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p> <p>Dust suppression will be controlled by a specific planning condition imposed on any planning permission.</p>	
<p>Soil contamination</p> <p>Soil contamination can result from various on-site activities including industrial processes (e.g. those involving fuels, oils and solvents)</p>		<p>The development of this site is unlikely to give rise to soil contamination. Nevertheless, leaching or spillage could occur. Given the size of the site, however, and potential for this to happen, this is considered unlikely to be significant.</p>	<p>Nevertheless, Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM13: High Quality Design of Minerals and Waste Development states that the design of appropriate facilities for minerals and waste development should protect and, wherever possible, enhance soils.</p> <p><i>[Improvements to the policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of soil contamination will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment include <i>(significant improvements / additions have been made to the Development</i></p>	<p>YES</p>

			<p><i>Consideration since the initial Screening stage) :</i></p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	
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Table 6: Horton Brook Quarry (WA 2)

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

The specific location of the allocated use within the existing Horton Brook Quarry site is yet to be determined. In view of the precautionary principle, however, the minimum distance from Horton Brook Quarry to the South West London Waterbodies SPA/Ramsar site has been used for this assessment.

Potential Impacts	European sites potentially affected and qualifying features	Could the development have an adverse effect on any European site integrity either alone or in combination with other plans or projects?	Mitigation/measures	If mitigation / measures are implemented, can adverse effects on the European site be ruled out?
<p>Physical disturbance / loss of habitat</p> <p>New waste sites can lead to loss of habitat/habitat fragmentation as a result of land take and associated infrastructure development.</p>	<p>South West London Waterbodies SPA / Ramsar</p> <ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) <p><i>Horton Brook Quarry (WA 2) is 0.71 km from the South West London waterbodies SAP / Ramsar</i></p>	<p>Although the site is not located within the SPA, the possible use of the site as off-site foraging habitat for qualifying bird species of the nearby SPA needs to be considered. The site itself does not currently support habitat that would support foraging of qualifying bird species and is therefore not likely to lead to significant effect. Nevertheless, there is the possibility that operating this site could impact other areas used by qualifying species. There is currently uncertainty in relation to sites outside the SPA/Ramsar that may be used by qualifying species.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of physical disturbance/loss of habitat will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and protection of a part of the site for nature conservation purposes during operation. • Consideration of the objectives of the Colne Valley gravel Pits and Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals. • Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including 	<p>YES</p>

			<p>large scale native species tree belts.</p> <ul style="list-style-type: none"> • Integrate new structures with effective screen planting, including along boundaries. • The restoration of the site must give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019)... • Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area. • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. • Consideration of the Colne Brook and its river corridor. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	
<p>Noise pollution</p> <p>Noise effects can be caused by activities associated with the operation of machinery and / or extra traffic movements to and from the facility.</p>	<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of noise pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not ‘cause unacceptable noise...’</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that ‘applications would also be expected to be accompanied by an Environmental Statement which would include details of the site’s impact on noise...’</p> <p><i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of noise pollution and vibration will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and 	<p>YES</p>	

			<p>Kingsmead Lakes LWS.</p> <ul style="list-style-type: none"> Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. Integrate new structures with effective screen planting, including along boundaries. A Transport Assessment or Statement is required. An HGV Routeing Agreement will be required (or maintain existing). <i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i> 	
<p>Light pollution</p> <p>Light pollution can be caused by artificial lighting on site as well as vehicle traffic movements to and from and within the site.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of light pollution at this proximity.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not cause unacceptable lighting. <i>[Wording improved since the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of light pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. Integrate new structures with effective screen planting, including along 	<p>YES</p>

			<p>boundaries. <i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p>	
<p>Changes to water levels</p> <p>Activities associated with waste sites can affect water levels in a variety of ways, including drying, flooding / storm water, changes in water level and stability, changes in surface water flow and groundwater flow and loss of groundwater storage. These changes can result from construction and operational activities.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in local hydrology. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area. <i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not ...cause unacceptable risk to the quantity of water resources; and cause changes to groundwater and surface water levels which would result in unacceptable impacts on: adjoining land; potential groundwater resources; and the potential yield of groundwater resources, river flows or natural habitats’. The policy also requires that ‘where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation. <i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water levels will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration following the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Considerations of the objectives of the Colne Valley Gravel Pits and 	<p>YES</p>

			<p>Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals.</p> <ul style="list-style-type: none"> • A Flood Risk Assessment and Hydrological/Hydrogeological Assessment is required. • Proximity to major/minor aquifers, in addition to Source Protection Zones. • Consideration of the Colne Brook and its river corridor. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Changes in water quality</p> <p>Water quality can be affected by waste management during preparatory works, operational activities for example as a result of ground investigation works, or industrial processes within a site.</p>		<p>The qualifying features of the SPA/Ramsar are vulnerable to the effects of changes in water quality from a range of pollution sources. There is current uncertainty in relation to hydrological connectivity between the allocated site and the SPA/Ramsar.</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to ...water (above appropriate standards).</p> <p><i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM10: Flood Risk requires that development not result in an increased flood risk elsewhere and, where possible, reduce flood risk overall and incorporate flood protection, flood resilience and resistance measures where appropriate to the character and biodiversity of the area.</p> <p><i>[Wording of policy and supporting text improved following the initial Screening stage]</i></p> <p>Policy DM11: Water Resources requires that development does not result in the deterioration of the physical state, water quality or ecological status of any water resource and waterbody including river, streams, lakes, ponds, groundwater source protection zones and groundwater aquifers. The policy also requires that ‘where proposals are in a groundwater source protection zone, a Hydrological Risk Assessment must be provided. If the Hydrological Risk Assessment identifies unacceptable risk, the developer must provide appropriate mitigation.</p> <p><i>[New policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of changes to water quality will be fully addressed at planning stage to address any uncertainty with respect to</p>	<p>YES</p>

			<p>the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration following the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts to Wraysbury Reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Considerations of the objectives of the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals. • A Flood Risk Assessment and Hydrological / Hydrogeological Assessment is required. • Proximity to major / minor aquifers, in addition to Source Protection Zones. • Consideration of the Colne Brook and its river corridor. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Air pollution</p> <p>Air pollution can result from vehicle traffic movements to and from waste management sites, and by emissions from on-site activities.</p>		<p>In the ‘Habitats Regulations and Air Quality Assessment update’ for the Royal Borough of Windsor and Maidenhead (RBWM) Local Plan, detailed in the HRA Screening Report, a thorough check of key documents relating to the South West London Waterbodies SPA and Ramsar site and their associated constituent SSSIs was carried out. The conclusion of this was that the site has no sensitivity to air quality impacts and was therefore excluded from that modelling study. This includes any potential functional habitat for the site.</p> <p>Additionally, the distance of the allocated minerals site is significantly above the indicative threshold of 200m for the consideration of likely significant effects from traffic related air pollution.</p>	<p>Nevertheless, Policy DM2: Climate Change – Mitigation and Adaption states that minerals and waste development will be supported that “contributes towards mitigating the causes of climate change by... being located and designed to encourage the sustainable use of resources; and... helps to reduce greenhouse gas emissions. Furthermore, that “minerals and waste development proposals will be supported by a Climate Change Assessment, which demonstrates how these opportunities have been considered and, where possible, incorporated.”</p> <p><i>[Policy wording significantly modified following the initial screening, including introduction of the requirement for applicants to submit a Climate Change Assessment.]</i></p> <p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for</i></p>	<p>YES</p>

		<p>In relation to the strategic road network (SRN), the Strategic Transport & Traffic Assessment, concludes that Horton Brook Quarry (CEB19) would represent less than 1% increase in HGV traffic on the SRN.</p>	<p><i>adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not: release emissions to the atmosphere (above appropriate standards). <i>[Wording improved following the initial Screening stage]</i></p> <p>Policy DM12: Sustainable Transport Movements states that ‘applications would also be expected to be accompanied by an Environmental Statement which would include details of the site’s impact on air quality...’ <i>[Significant improvements to policy and supporting wording following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of air pollution will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and protection of a part of the site for nature conservation purposes during operation. • Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. • Integrate new structures with effective screen planting, including along boundaries. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required (or maintain existing). <i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	
<p>Recreation-related impacts</p>		<p>Footpaths border the eastern and part of the western boundaries of the allocated site. There is the potential for waste</p>	<p>Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as</p>	<p>YES</p>

<p>Recreation can be displaced on to areas vulnerable to disturbance or pressure by changes to the accessibility of footpaths and cycleways or areas of permissive access.</p>		<p>management activities at this site to make footpaths less desirable and thereby displace users.</p>	<p>compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM8: Restoration of Minerals and Waste Developments requires that 'the restoration of minerals and waste developments should reinforce or enhance the quality and character of the local area and should contribute to the delivery of local objectives for community use where these are consistent with the Development Plan, and that 'the restoration of mineral extraction and landfill sites should be phased throughout the life of the development'. <i>[Wording improved following the initial Screening stage]</i></p> <p>The Restoration Study that accompanies the Proposed Submission Plan includes a section on recreation and amenity. Sites restored to include recreational facilities provide mitigation for the effects of recreational displacement by providing alternative open space and/or recreational access routes.</p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of recreation-related impacts will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration following the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • The restoration of the site must give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement⁵². <p><i>('The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.')</i></p>	
<p>Dust</p>		<p>The qualifying features of the SPA/Ramsar</p>	<p>Policy DM3: Protection of Habitats and Species requires that</p>	<p>YES</p>

⁵² Joint Connectivity Statement between the Colne Valley Regional Park, Slough Borough Council, RBWM and the Buckinghamshire authorities.

<p>Dust deposition on ground and water from operational activities can lead to contamination at nearby European sites</p>		<p>are vulnerable to the effects of dust deposition from waste management operations at this proximity.</p>	<p>development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations. <i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM9: Protecting Health, Safety and Amenity states that minerals and waste development should not 'cause unacceptable dust...'. <i>[Wording improved following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of dust will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. • Retention and protection of a part of the site for nature conservation purposes during operation. • Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts. • Integrate new structures with effective screen planting, including along boundaries. • A Transport Assessment or Statement is required. • An HGV Routeing Agreement will be required (or maintain existing). <i>('The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.')</i> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p> <p>Dust suppression will be controlled by a specific planning condition</p>	
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<p>Soil contamination</p> <p>Soil contamination can result from various on-site activities including industrial processes (e.g. those involving fuels, oils and solvents)</p>		<p>The development of this site is unlikely to give rise to soil contamination. Nevertheless, leaching or spillage could occur. Given the size of the site, however, and potential for this to happen, this is considered unlikely to be significant.</p>	<p>imposed on any planning permission.</p> <p>Nevertheless, Policy DM3: Protection of Habitats and Species requires that development likely to result in a significant effect, either alone or in combination, on European sites or sites identified, or required, as compensatory measures for adverse effects on such sites; and European Protected Species, will need to satisfy the requirements of the Habitats Regulations.</p> <p><i>[Policy wording modified following the initial Screening stage to strengthen reference to sites identified, or required, as compensatory measures for adverse effects on European sites to counteract adverse effects on internationally designated sites.]</i></p> <p>Policy DM13: High Quality Design of Minerals and Waste Development states that the design of appropriate facilities for minerals and waste development should protect and, wherever possible, enhance soils.</p> <p><i>[Improvements to the policy following the initial Screening stage]</i></p> <p>Development Considerations for the allocation have been designed to ensure that the particular consideration of soil contamination will be fully addressed at planning stage to address any uncertainty with respect to the operational use of the site at this stage of the assessment (<i>significant improvements / additions have been made to the Development Consideration since the initial Screening stage</i>). They include:</p> <ul style="list-style-type: none"> • Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*. • Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*. • Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS. <p><i>(‘The Asterix denotes that development cannot be permitted if it may negatively affect the integrity of European protected sites and the development requirements for maintaining this integrity must be addressed.’)</i></p> <p>The Environment Agency permitting requirements will provide strict control over site operations and emissions.</p>	<p>YES</p>
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Policy M4: Locations for Sand and Gravel Extraction

5.44 Policy M4 is subject to Appropriate Assessment based on the inclusion of two screened-in allocated minerals sites – Horton Brook and Poyle Quarry Extension (MA 1) and Poyle Quarry Extensions (MA 2). Although it has been concluded that neither of these sites would be likely to have a significant effect on the integrity of any European sites alone (see Tables 3 and 4, respectively), the assessment of their potential in-combination effects is considered in paragraph 5.42 onwards.

Policy W4: Locations and sites for waste management

5.45 Policy W4 is subject to Appropriate Assessment based on the inclusion of two screened-in allocated waste sites – Berkyn Manor Farm (WA 1) and Horton Brook Quarry (WA 2). Although it has been concluded that neither of these sites would be likely to have a significant effect on the integrity of any European sites alone (see Tables 5 and 6, respectively), the assessment of their potential in-combination effects is considered in paragraph 5.42 onwards.

Policy W3: Waste Capacity requirements

5.46 Policy W3 identifies the required scale of waste infrastructure capacity for the Plan area but does not specifically identify any sites. Consideration needs to be given to whether this level of waste capacity can be provided without having a likely significant effect on European sites.

5.47 The delivery of development proposals for waste infrastructure and processing will be considered in the form of individual planning applications. Allocated sites are subject to HRA as part of this assessment as would any proposal submitted for the development of allocated sites. In addition, the Plan provides a list of Development Considerations for each allocated site, which would also be applied to any individual development proposals within these site allocations. Similarly, other future development proposals on non-allocated sites will be subject to HRA screening through the normal development management processes. As part of the HRA process, waste management proposals would have to be considered in-combination with other plans and projects.

5.48 Table 7 provides a list of mitigation and other measures that would be implemented as part of any waste development proposal delivered in line with Policy W3 (policies are listed by title below, with relevant policy wording being provide in Tables 3 – 6).

Table 7: Mitigation and other measures relevant to the implementation of Policy W3

Mitigation for Policy W3
<ul style="list-style-type: none">• Implementation of the following policies:<ul style="list-style-type: none">• Policy DM2: Climate Change – Mitigation and Adaption• Policy DM3: Protection of Habitats and Species• Policy DM8: Restoration of Minerals and Waste Developments• Policy DM9: Protecting Health, Safety and Amenity• Policy DM10: Flood Risk• Policy DM11: Water Resources• Policy DM12: Sustainable Transport Movements• Policy DM13: High Quality Design of Minerals and Waste Development• HRA undertaken for any new waste management development• The Environment Agency permitting requirements will provide strict control over site operations and emissions.• Planning conditions imposed on any planning permission, together with monitoring, and enforcement where necessary.

5.49 Although there is considerable uncertainty in relation to where future waste development would be located in delivering the capacity requirements of Policy W3, it is considered that adequate mitigation would be provided, as set out above. As such, it is concluded that adverse effects on the integrity of European sites can be ruled out from the inclusion of Policy W3 in the Proposed Submission Plan, provided that identified mitigation measures are implemented.

Considering in-combination effects

5.50 The Habitats Regulations⁵³ requires the Appropriate Assessment of land use plans to consider the effect of the Plan in-combination with other plans or projects. Other plans that could potentially combine with the proposals in the Minerals and Waste Plan to cause in-combination effects and the location of other proposed developments have been considered (see Sections 6 and 7 of the HRA Screening Report⁵⁴). The potential for in-combination effects to arise from the policies Plan interacting with one another was ruled out in the Screening Report.

5.51 European sites may be affected by impacts from more than one minerals and/or waste site allocation. This may occur where more than one minerals or waste site is within reasonably close proximity of a particular European site, where these minerals or waste sites will be operational at the same time, and where potential effects of the sites are similar (cumulative effect).

⁵³ [The Conservation of Habitats and Species Regulations 2017](#)

⁵⁴ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

5.52 In addition, there may be in-combination effects from minerals and waste sites and other types of development proposed in the Local Development Plan Documents for Central and Eastern Berkshire's constituent and neighbouring local planning authorities. A summary of the potential for in-combination effects to result from allocation sites in the Plan interacting with one another and with other plans or projects is provided below, detailed against each European site.

Burnham Beeches SAC

5.53 The closest site allocated in the Proposed Submission Plan is located over 6.6 km from Burnham Beeches SAC. Based on the implementation of Policies and Development Considerations set out in this Proposed Submission Plan, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered that the Burnham Beeches SAC can be ruled out as not being subject to potential significant effects on site integrity from Proposed Submission Plan allocated sites or policies, in-combination with any other plans or projects.**

Chiltern Beechwoods SAC

5.54 Stubbings Compound (WA 3) is located 2.64 km to the south of the SAC and was screened out of the HRA process as not likely to have a significant effect on the integrity of the European site. The next closest allocated site is almost 8 km distant. Based on the proposed activity at WA 3 and the implementation of Policies and Development Considerations set out in this Proposed Submission Plan, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered that the Chiltern Beechwoods SAC can be ruled out as not being subject to potential significant effects on site integrity from Proposed Submission Plan allocated sites or policies, in-combination with any other plans or projects.**

Hartslock Wood SAC

5.55 The closest site allocated within the Proposed Submission Plan is located over 22 km from Hartslock Wood SAC. Based on the implementation of Policies and Development Considerations set out in this Proposed Submission Plan, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered**

that the Hartslock Wood SAC can be ruled out as not being subject to potential significant effects on site integrity from Proposed Submission Plan allocated sites or policies, in-combination with any other plans or projects.

South West London Waterbodies SPA / Ramsar

5.56 There are four Proposed Submission Plan allocations located within close proximity of the South West London Waterbodies SPA/Ramsar:

- Horton Brook and Poyle Quarry Extension (MA 1);
- Poyle Quarry Extensions (MA 2);
- Berkyn Manor Farm (WA 1)
- Horton Brook Quarry (WA 2)

The next closest allocated site (Monkey Island Wharf – TA 1) is located over 9 km from the SPA/Ramsar.

5.57 Each of the four allocated sites has been assessed individually as unlikely to have a significant effect on the integrity of the European site. There is considerable uncertainty on the timing of any minerals or waste development on these sites. Furthermore, Horton Brook Quarry is an existing operational sand and gravel quarry, with the allocated use of inert recycling to be located somewhere on the existing site. **It is considered that subject to the use of appropriate mitigation derived by the implementation of the Proposed Submission Plan policies, Development Considerations and other measures, set out in Tables 3 - 6, the four site allocations, together with the existing use of Horton Brook Quarry as an operational minerals extraction site, are not likely to have a significant effect on the integrity of the European site, in-combination.**

5.58 In addition, there are a number of significant housing developments planned through the Royal Borough of Windsor and Maidenhead Local Plan Submission Version (2017) as set out in the Regulation 19 Screening Tables⁵⁵ for the four allocations. The closest of these developments will, however, be over 4 km from the European site. The RBWM Local Plan is subject to HRA and each of the development proposals has or will be subject to HRA screening. **It is considered that subject to the use of appropriate mitigation measures set out in paragraph 5.57, from the RBWM Local Plan HRA and through development management processes, the housing developments and allocations mentioned above and the four minerals and waste site allocations together with the current minerals**

⁵⁵ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

operation at Horton Brook Quarry, are unlikely to have a significant effect on the SPA/Ramsar when considered in-combination.

5.59 The Heathrow Airport Expansion proposal continues to be progressed. If the proposal comes to fruition, extended runway infrastructure will be constructed within relatively close proximity of the South West London Waterbodies SPA/Ramsar site. The indicative timescale is for the third runway to be operational by 2026 and any planning proposal(s) would include Environmental Impact Assessment (EIA) and HRA. There are, however, considerable uncertainties in relation to project delivery and timescales and potential effects on the SPA/Ramsar and it is, therefore, considered that there is the potential for in-combination effects and the HRA for the proposal will need to ensure that all likely significant effects both alone and in-combination are resolved through appropriate mitigation measures.

Thames Basin Heaths SPA

5.60 Although there are a number of relevant significant developments planned / allocated through local planning authority Local Plans and the Hampshire Minerals and Waste Local Plan within proximity of the SPA, the closest site allocated within the Proposed Submission Plan is located over 12 km distant. **As such, there is no likely in-combination effect from allocated minerals and waste sites in the Proposed Submission Plan.**

5.61 After extensive research, Natural England and its partners, including all relevant local planning authorities produced the Thames Basin Heaths Special Protection Area Delivery Framework⁵⁶, which has guided local avoidance and mitigation strategies to enable the delivery of dwellings in the vicinity of the SPA without having a significant effect on the SPA as a whole. The framework approach focuses on avoiding the impact of recreation (especially dog-walking) and urbanisation on the SPA habitat and qualifying bird species, in particular by not allowing new housing development within 400m of the SPA boundary. Two main forms of mitigation are included in the framework: the provision of Suitable Alternative Natural Greenspace to encourage recreation in areas away from the SPA; and delivery of Strategic Access Management and Monitoring Measures, both funded by developer contributions.

5.62 In view of the implementation of the Delivery Framework, the policies and Development Considerations set out in this Proposed Submission Plan and

⁵⁶ [Thames Basin Heaths Special Protection Area Delivery Framework. Thames Basin Heaths Joint Strategic Partnership Board \(2009\).](#)

other relevant Local plans, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered that Thames Basin Heaths SPA can be ruled out as not being subject to likely significant effects on site integrity from the in-combination effects of Proposed Submission Plan allocated sites or policies, and other plans or projects.**

Thursley, Ash, Pirbright and Chobham SAC

5.63 The closest site allocated in the Proposed Submission Plan is located over 10 km from the Thursley, Ash, Pirbright and Chobham SAC. Based on the implementation of Policies and Development Considerations set out in this Proposed Submission Plan, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered that the Thursley, Ash, Pirbright and Chobham SAC can be ruled out as not being subject to potential significant effects on site integrity from Proposed Submission Plan allocated sites or policies, in-combination with any other plans or projects.**

Windsor Forest and Great Park SAC

5.64 There are two allocated sites within 3 km of the Windsor Forest and Great Park SAC: Monkey Island Wharf (TA 1) and Stubbings Compound (WA 3) at 2.87 km and 2.64 km from the SAC, respectively. Both TA 1 and WA 3 were screened out of the HRA. The screened-in sites are a minimum of 4.32 km from the SAC. All sites were considered not to be likely to have a significant effect on the SAC, alone.

5.65 There are a number of significant housing developments planned through the Royal Borough of Windsor and Maidenhead Local Plan Submission Version (2017) as set out in the Regulation 19 Screening Tables⁵⁷ for the three allocations. The closest of these developments will, however, be over 4 km from the European site. The RBWM Local Plan is subject to HRA and each of the development proposals has or will be subject to HRA screening.

5.66 Based on the nature of the proposed operations at TA 1 and WA 3 and the distance of screened-in allocated sites from the SAC, the implementation of Policies and Development Considerations set out in this Proposed

⁵⁷ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

Submission Plan and other relevant Local plans, other measures set out in Tables 3 - 6, and the fact that no further sites are proposed at this stage to support the delivery of minerals and waste capacity requirements in Policies M3 and W3, **it is considered that Windsor Forest and Great Park SAC can be ruled out as not being subject to likely significant effects on site integrity from the in-combination effects of Proposed Submission Plan allocated sites or policies and other plans or projects.**

6. Monitoring

- 6.1 Monitoring in relation to plans and projects is not specified by the Habitats Directive⁵⁸, but it is considered to be good practice, and guidance suggests that monitoring the effects of plan implementation in relation to any issues identified by the HRA should be undertaken.
- 6.2 It is important that measures for monitoring and review of European sites of interest in the plan area are established in support of the HRA findings and mitigation measures which will provide the necessary policy tools to ensure that adverse effects on the integrity of sites do not occur over the Plan period.
- 6.3 Monitoring for the HRA will be in tandem with the SA/SEA requirements and will link up with the Central and Eastern Berkshire Authorities Annual Monitoring Report on the implementation of the Joint Minerals and Waste Plan. Monitoring of those minerals and waste planning permissions that require HRA are incorporated into the annual monitoring exercise. This will allow the Central and Eastern Berkshire Authorities to determine if the Plan is having an adverse effect on any European sites.
- 6.4 Where site allocations cannot be permitted, the Plan's Implementation and Monitoring Plan will be used to monitor the impact of this on the Plan and the monitoring triggers will act to instigate a review of the plan in light of any such decisions. This will include proposals that may be refused based on their effects on European sites.
- 6.5 In addition, each of the sites and areas that have been assessed within this HRA process will be subject to conditions and planning obligations that will have elements of monitoring and compliance included.

⁵⁸ Article 11 requires that 'Member States shall undertake surveillance of the conservation status of the natural habitats and species referred to in Article 2 with particular regard to priority natural habitat types and priority species'. In England this surveillance is undertaken by Natural England in their statutory nature conservation role.

7. Measures for avoiding adverse effects on site integrity

7.1 Changes were made to the wording of policies and supporting text, to sites being put forward for allocation and to the wording of Development Considerations for allocated sites as a result of this iterative HRA process. The final HRA record will include a summation of changes made as a result of the HRA process.

8. Conclusion and Next Steps

8.1 This report presents the Regulation 19 HRA Appropriate Assessment of the Central and Eastern Berkshire Joint Minerals and Waste Proposed Submission Plan (July 2020). This follows on from the Regulation 18 screening assessment⁵⁹, which was subject to consultation with nature conservation bodies including Natural England, that helped inform policy development, and the subsequent Regulation 19 screening assessment⁶⁰. The HRA process has followed the methodology, agreed with Natural England, as set out in the HRA Baseline and Methodology Report⁶¹.

8.2 The assessment establishes the nature of the potential effects of screened-in sites on the integrity of the European sites of interest.

8.3 The HRA has concluded that the Joint Minerals and Waste Proposed Submission Plan is compliant with the Habitats Regulations and will not result in likely significant effects on any European sites, either alone or in-combination with other plans or projects. For development coming forward on either the allocated sites or non-allocated sites, it is considered that there are sufficient mitigation measures set out in the Proposed Submission Plan, or elsewhere, such as via HRA requirements, regulatory requirements managed by the Environment Agency and minerals and waste planning authority development management processes.

8.4 The conclusions and recommendations of this HRA Report are subject to consultation comments and advice from Natural England. An updated version of the HRA Report will be prepared to accompany the Plan. The conclusion will be published in the form of a formal Record of Determination on publication and adoption of the Plan.

⁵⁹ [Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment Screening Report \(June 2018\)](#).

⁶⁰ Central and Eastern Berkshire Joint Minerals and Waste Plan (Screening Report) Proposed Submission (July 2020).

⁶¹ [Central and Eastern Berkshire Authorities - Joint Minerals & Waste Plan Habitats Regulations Assessment Baseline and Methodology Report - Revised \(June 2017\)](#).

Appendix 1: Screened-In Policies.

The following tables (Tables 8 - 9) are reproduced from the Regulation 19 HRA Screening Report⁶² and represent those minerals and waste policies in the Proposed Submission Plan that are screened-in for further consideration. Table 8 includes the screened-in minerals policy and Table 9 includes the screened-in waste policies.

Table 8: Screened-in minerals policy from Regulation 19 screening of minerals policies and supporting text.

Minerals Policy	HRA Screening Outcome (green = screened out. Amber = screened in for Appropriate Assessment)	
	Category	Rationale
<p>Policy M4</p> <p>Locations for sand and gravel extraction</p> <p>A steady and adequate supply of locally extracted sand and gravel will be provided by:</p> <ol style="list-style-type: none"> 1. The extraction of remaining reserves at the following permitted sites: <ol style="list-style-type: none"> a. Horton Brook Quarry, Horton b. Riding Court Farm, Datchet c. Sheephouse Farm, Maidenhead d. Poyle Quarry, Horton e. Water Oakley, Holyport 2. Extensions to the following existing sites: <ol style="list-style-type: none"> a. Horton Brook & Poyle Quarry, Horton (MA 1) b. Poyle Quarry, Horton (MA 2) 3. Proposals for new sites not outlined in Policy M4 (1 and 2) will be supported, in appropriate locations, where: <ol style="list-style-type: none"> a. They are situated within the Area of Search (as shown on the Policies 	C2	<p>This policy seeks to maintain a steady and adequate supply of locally extracted sand and gravel through the extraction of existing permitted sites, extensions to existing sites, and future new sites not outlined in this policy.</p> <p>Future sites will be subject to HRA screening through the normal development management process and this policy is also supported by Policy DM3 – Protection of Habitats and Species.</p> <p>However, the site extensions are subject to HRA screening as part of this assessment process and both have been screened in.</p> <p>This policy is, therefore, screened in.</p>

⁶² Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

<p>Map): and</p> <ul style="list-style-type: none">b. They are needed to maintain the landbank; and/orc. Maximise opportunities of existing infrastructure and available resources; ord. At least one of the following applies:<ul style="list-style-type: none">i. The site contains soft sand;ii. The resources would otherwise be sterilised; oriii. The proposal is for a specific local requirement.		
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Table 9: Screened-in waste policies from Regulation 19 screening of waste policies and supporting text.

Waste Policy	HRA Screening Outcome (green = screened out. Amber = screened in for Appropriate Assessment)	
	Category	Rationale
<p>Policy W3</p> <p>Waste capacity requirements</p> <ol style="list-style-type: none"> 1. Additional waste infrastructure capacity within the Plan area will be granted in appropriate locations, to provide a minimum of: <ul style="list-style-type: none"> • 300,000 tpa non-hazardous recycling capacity; • 245,000 tpa non-hazardous recovery capacity; • 575,000 tpa of inert recycling or recovery capacity. 2. Hazardous waste management facilities, waste water or sewage treatment plants and non-hazardous waste landfill for residual waste will be supported, in appropriate locations, where there is a clear and demonstrable need. 	C2	<p>This policy identifies the required scale of waste infrastructure capacity for the Plan area but does not specifically identify any sites. Sites are subject to HRA as part of this assessment and the development of any of those sites or other future sites will be subject to HRA screening through the normal development management process.</p> <p>This policy is also supported by Policy DM3 – Protection of Habitats and Species.</p> <p>However, further consideration is required to ascertain whether this level of waste capacity can be provided without having a likely significant effect on European sites.</p> <p>This policy is screened in.</p>
<p>Policy W4</p> <p>Locations and sites for waste management</p> <ol style="list-style-type: none"> 1. The delivery of waste management infrastructure will be supported within: <ol style="list-style-type: none"> a. Preferred Waste Areas listed in Appendix C; or 2. Where waste management infrastructure cannot be accommodated within the Preferred Waste Areas: <ol style="list-style-type: none"> a. Allocated sites: <ol style="list-style-type: none"> i. Berkyn Manor Farm, Horton (WA 1) ii. Horton Brook Quarry, Horton (WA 2) iii. The Compound, Stubbings, Maidenhead (WA 3) b. Appropriate locations, where the site has good connectivity to the strategic road network; and <ol style="list-style-type: none"> i. Areas of major new development; or 	C2	<p>This policy supports the delivery of new and additional waste management infrastructure.</p> <p>Future sites will be subject to HRA screening through the normal development management process and this policy is also supported by Policy DM3 – Protection of Habitats and Species.</p> <p>However, two of the allocated sites are subject to HRA screening as part of this assessment process (WA 1 and WA 2) and these have been screened in.</p> <p>This policy is, therefore, screened in.</p>

<p>ii. Sources of waste; or</p> <p>iii. Markets for the types of waste to be managed; and</p> <p>iv. One or more of the following features:</p> <ul style="list-style-type: none">- Is existing or planned industrial or employment land; or- Is a suitable reuse of previously developed land; or- Is within redundant farm or forestry buildings and their curtilages or hard standings; or- Is part of an active quarry or active landfill operation; or- Is within or adjoins sewage treatment works and the development enables the co-treatment of sewage sludge with other wastes; or- There is a clear proven and overriding need for the proposed facility to be sited in the proposed location.		
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Appendix 2: Screened-In Site Allocations

The following tables (Tables 10 – 13) are reproduced from the Regulation 19 HRA Screening Report⁶³ and represent those minerals and waste sites in the Proposed Submission Plan that are screened-in for further consideration. Tables 10 and 11 include screened-in minerals sites and tables 12 and 13 include screened-in waste sites.

Screened-In Minerals Sites

TABLE 10	
Site name and reference	Horton Brook and Poyle Quarry Extension (MA 1)
Location of Site	Royal Borough of Windsor and Maidenhead (grid reference: 501980 176535)
Brief description of Site	<p>Current use: Existing bridleway (Colne Valley Way)</p> <p>Proposal: Extraction of 250,000 tonnes of sand and gravel from the site. Processing will take place at existing plants at either Horton Brook Quarry to the west or Poyle Quarry to the east. The site boundary covers an area of approximately 3.75 ha and lies between the permitted Horton Brook Quarry and permitted Poyle Quarry which is yet to commence operation. It is anticipated that extraction of this site would be relatively straightforward and would commence from the eastern side.</p> <p>Restoration: The site will be restored using backfill of inert waste material and the bridleway (Colne Valley Way) will be reinstated.</p> <p>Previous consideration within the plan making process: This site is a new proposal but forms part of Preferred Area 12 (North of Horton) in the adopted Minerals Local Plan.</p>
European sites (including Ramsar) potentially affected	South West London Waterbodies
Site designation status	SPA / Ramsar
Location of European site	Windsor and Maidenhead, TQ023746
Distance from European site	0.75 km

⁶³ Central and Eastern Berkshire Joint Minerals and Waste Plan Habitats Regulations Assessment (Screening Report) Proposed Submission (July 2020).

Brief description of European site		The South-West London Water Bodies comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The predominant habitat (70%) is made up of inland water bodies. There are also areas of improved grassland, humid and mesophile grassland and broad-leaved deciduous woodland. The soil and geology are a mix of alluvium, clay, and mud, neutral and sand. The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular gadwall <i>Anas strepera</i> and shoveler <i>Anas clypeata</i> , both of which occur in numbers of European importance.
Conservation Objectives of the European site		Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Qualifying Features of the European site		<ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; northern shoveler (Non-breeding)
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The site is located 0.75 km south east of the SPA / Ramsar. The European site will not therefore be impacted by direct land take.
Removal of supporting habitat	Y	The main issue relates to the proximity of the site to the SPA. The field along the eastern boundary of the site, though presenting little intrinsic biodiversity interest, provides moderate suitability (large, open and arable) for foraging over-wintering birds such as waders, brent geese and ducks, and could potentially be considered supporting SPA habitat. It is unclear at this stage whether the timing of permitted extraction works at Poyle Quarry (on the adjacent field) would render the field unsuitable as SPA habitat.
Noise	Y	Proximity could lead to indirect impacts such as noise pollution, and behavioural change of bird species.
Vibration	N	As the site is 0.75 km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.

Lighting	Y	As the site is 0.75 km from the European site, the hazard is considered to have the potential to cause a likely significant effect on bird species behaviour.
Dust	Y	As the site is 0.75 km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Water pollution	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Changes in surface / groundwater hydrology	Y	Dewatering is a key process in the extraction of sand and gravel. This can have impacts on groundwater flow some distance from the extraction site. Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Air quality / Traffic	N	Based on the distance of the site from the SPA/Ramsar, the nature of the proposed operations on the site, the low sensitivity of the SPA/Ramsar to airborne pollutants and the de-minimis potential change in HGV traffic on the SRN (less than 1% increase), it is considered unlikely that the interest features are vulnerable to this hazard.
Recreation related impacts	Y	The proposed operations would necessitate the removal of a track providing public access. This has the potential to cause a likely significant effect through recreational displacement.
Details of other plans and projects which may affect the European site in-combination		
Sites CEB16, 18a, 18b, 19, 21, 25, 27. RBWM Local Plan Submission Version Incorporating Proposed Changes (2019)		
Could the potential impacts of the development of the proposed site have a likely significant effect?		
Alone?	Yes (C2)	
In-combination with other plans/projects	Yes	

TABLE 11	
Site name and reference	Poyle Quarry Extensions (MA 2)
Location of Site	TQ 021 764
Brief description of Site	<p>Current use: Existing arable fields.</p> <p>Proposal: Two minor extension areas to potential Poyle Quarry Mineral extraction site, with no processing proposed on the site. Processing will take place on a nearby plant outside the plan area.</p> <p>Planning permission for extraction and infilling of Poyle Quarry was granted by the Royal Borough of Windsor and Maidenhead (RBWM) in 2008. The permission was renewed in 2011 although the permission was not implemented and subsequently lapsed in January 2016. A new planning application (17/03426/FUL) has now been submitted to RBWM for the Poyle Quarry site.</p> <p>Restoration: Recovery of land using inert waste to agriculture land at original level.</p> <p>Approximate size of site: Two areas of land, 4ha and 2ha</p> <p>Previous consideration within the plan making process: Adjacent to land previously Allocated as part of Preferred Area 12 (North of Horton) in the Replacement Minerals Plan (1995) incorporating alterations adopted in 1997 and 2001 and Preferred Area 25 within the Waste Local Plan for Berkshire (1998).</p>
European sites (including Ramsar) potentially affected	South West London Waterbodies
Site designation status	SPA / Ramsar
Location of European site	Windsor and Maidenhead, TQ023746
Distance from European site	0.51km (southern extension); 0.77km (northern extension)
Brief description of European site	<p>The South-West London Water Bodies comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The predominant habitat (70%) is made up of inland water bodies. There are also areas of improved grassland, humid and mesophile grassland and broad-leaved deciduous woodland. The soil and geology is a mix of alluvium, clay, and mud, neutral and sand.</p> <p>The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall <i>Anas strepera</i> and Shoveler <i>Anas clypeata</i>, both of which occur in numbers of European importance.</p>
Conservation Objectives of the European site	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

		<ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Qualifying Features of the European site		<ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding)
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The site is located 0.51km south east of the SPA / Ramsar. The European site will, therefore, not be impacted by direct land take.
Removal of supporting habitat	Y	The main issue relates to the proximity of the site to the SPA. The onsite habitat though presenting little intrinsic biodiversity interest, provides moderate suitability (large, open and arable) for foraging over-wintering birds such as waders, brent goose and ducks, and could potentially be considered supporting SPA habitat. Further surveys will be required to determine the level of importance of these grasslands for qualifying feature species of birds, especially in combination with other sites in the vicinity.
Noise	Y	Proximity could lead to indirect impacts such noise pollution and behavioural change to bird species.
Vibration	Y	Proximity could lead to indirect impacts such vibration and behavioural change of bird species
Lighting	Y	As the site is 0.51km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Dust	Y	As the site is 0.51km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Water pollution	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Changes in surface / groundwater hydrology	Y	Dewatering is a key process in the extraction of sand and gravel. This can have impacts on groundwater flow some distance from the extraction site. As the site is only 0.51km from the SPA / Ramsar mineral extraction operations could have a negative effect on the European site.
Air pollution / Traffic	N	Based on the distance of the site from the SPA/Ramsar, the nature of the proposed

		operation on the site, the low sensitivity of the SPA/Ramsar to airborne pollutants and the de-minimis potential change in HGV traffic (less than 1% increase), it is considered unlikely that the interest features are vulnerable to this hazard.
Recreation related impacts	Y	No footpaths or other recreational facilities will be directly affected by the allocated development uses on these extension sites. There is, however, the possibility that other local footpaths could be made less desirable by minerals extraction activity at these locations.
Details of other plans and projects which may affect the European site in-combination		
Sites: CEB16, 18b, 19, 21, 25, 27. RBWM Local Plan Submission Version Incorporating Proposed Changes (2019)		
Are the potential impacts of the development of the proposed site likely to be significant?		
Alone?	Yes (C2)	
In-combination with other plans/projects	Yes	
European sites (including Ramsar) potentially affected		
Windsor Forest and Great Park		
Site designation status	SAC	
Location of European site	Windsor and Maidenhead, Bracknell Forest; TQ023784	
Distance from European site	4.64km	
Brief description of European site	<p>Windsor Forest and Great Park consists of a large area of continuous dry oak-dominated woodland and parkland and is made up of large population of ancient oak pollards trees. Being partially hollow and decayed, the oaks and beech afford habitats for a number of extremely rare and specialised insects. The predominant habitat is mixed woodland (95%), with areas of dry grasslands and inland water bodies. The soil and geology is a mix of acidic, clay, neutral and sand. The area recently been recognised as having rich fungal assemblages.</p> <p>Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>). (Beech forests on acid soils). Old acidophilous oak woods homes the largest number of veteran oaks, <i>Quercus</i> spp. in Britain on sandy plains. (Dry oak-dominated woodland).</p> <p>It is recognised as international importance for its range of saproxylic invertebrates such as the rare beetle <i>Lacon querceus</i>. In addition, the site is thought to support the largest known populations of the Violet Click Beetle, <i>Limoniscus violaceus</i>, in the UK.</p>	
Conservation Objectives of the European site	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the	

		<p>site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site.
Qualifying Features of the European site		<ul style="list-style-type: none"> • H9120. Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils. • H9190. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains; Dry oak-dominated woodland. • S1079. <i>Limoniscus violaceus</i>; Violet click beetle.
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The site is located 4.64km from the SAC. Therefore, the European site will not be impacted by direct loss of land.
Removal of supporting habitat	N	As the site is 4.64km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Noise	N	Ditto
Vibration	N	Ditto
Lighting	N	Ditto
Dust	N	Ditto
Water pollution	N	The site is located 4.64km from the SAC, and is not connected to the European site by any vectors which may carry pollution. Therefore, the European and Ramsar site will not be impacted from water pollution.
Changes in surface / groundwater hydrology	N	As the site is 4.64km from the European site and lacks hydrological connectivity, the hazard is considered to have negligible potential to cause a likely significant effect.
Air pollution / Traffic	N	Due to the distance of the proposed development to the SAC, it is considered that slight changes in traffic will not result in a likely significant effect.
Recreation related impacts	N	As the site is 4.64km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.

Details of other plans and projects which may affect the European site in-combination	
RBWM Local Plan Submission Version Incorporating Proposed Changes (2019) Maidenhead Golf Course (4.62km) - Housing development site, estimated capacity 2000 Land south of Harvest Hill Road, Maidenhead (4.85km) - Housing development site, estimated capacity 380 Land south of Manor Lane, Maidenhead (5.39km) - Housing development site, estimated capacity 220 Land west of Windsor, north and south of the A308, Windsor (4.44km) - Housing development site, estimated capacity 450 Longcross Garden Village, Runnymede (4.14km) - Site allocation for new sustainable settlement incorporating a minimum of 1718 residential units and a range of supporting services and facilities. <i>[Names and references to sites will be updated]</i> Sites: CEB2, 16, 17, 18a, 19, 21, 25, 27, 28.	
Are the potential impacts of the development of the proposed site likely to be significant?	
Alone?	No
In-combination with other plans/projects	No

Screened-In Waste Sites

TABLE 12	
Site name and reference	Berkyn Manor Farm (WA 1)
Location of Site	Windsor and Maidenhead; TQ 019 761
Brief description of Site	<p>Current use: A working farm estate with some industrial buildings and sheds. Under the same ownership and adjacent to the proposed Poyle Quarry.</p> <p>Proposal: This site is adjacent to Poyle Quarry. The Berkyn Manor Farm boundary overlies part of the land parcel that constitutes the southern Poyle Quarry extension area. The land is all under the same ownership. The proposed development for green waste / energy recovery use (Anaerobic Digestion) would follow on after working and restoration of the southern Poyle Quarry extension area site although as a compatible use it could come forward earlier than the full restoration within an appropriate area within the farms landholdings. The proposal is for a throughput of 50,000 tonnes per annum. Part of the Berkyn Manor Farm land nomination which is being proposed for green waste / energy use falls outside the area being promoted for mineral extraction and as such this part of the site could come forward immediately for an Anaerobic Digestion facility.</p> <p>Waste Category: 1 (activities requiring open sites or ancillary open areas (involving biological treatment)); 2 (activities requiring open sites or ancillary open areas (not involving biological treatment)); 3 (activities requiring enclosed industrial premises (small scale)); 4 (Activities requiring enclosed industrial premises (Large scale)).</p> <p>Approximate size of site: 2.7 hectares</p> <p>Previous consideration within the plan making process: The Berkyn Manor Farm site is part off and adjacent to the area previously allocated as Preferred Area 25 (North of Horton) within the Waste Local Plan for Berkshire (1998) and Preferred Area 12 in the Replacement Minerals Plan (1995) incorporating alterations adopted in 1997 and 2001.</p>
European sites (including Ramsar) potentially affected	South West London Waterbodies
Site designation status	SPA / Ramsar
Location of European site	Windsor and Maidenhead; TQ023746
Distance from European site	0.57km
Brief description of European site	The South-West London Water Bodies comprises a series of embanked water supply reservoirs

	<p>and former gravel pits that support a range of man-made and semi-natural open water habitats. The predominant habitat (70%) is made up of inland water bodies. There are also areas of improved grassland, humid and mesophile grassland and broad-leaved deciduous woodland. The soil and geology are a mix of alluvium, clay, and mud, neutral and sand.</p> <p>The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall <i>Anas strepera</i> and Shoveler <i>Anas clypeata</i>, both of which occur in numbers of European importance.</p>	
Conservation Objectives of the European site	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site. 	
Qualifying Features of the European site	<ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) 	
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The site is located 0.57km south east of the SPA / Ramsar. The European site will, therefore, not be impacted by direct land take.
Removal of supporting habitat	Y	It is likely that this site would be considered supporting SPA habitat on the basis of the habitats on site and proximity, potentially providing foraging/breeding habitat for qualifying feature species.
Leachate	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Dust	Y	As the site is 0.57km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Noise	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Vibration	N	As the site is 0.57km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Lighting	Y	As the site is 0.57km from the European site, the hazard is considered to have the

		potential to cause a likely significant effect.
Vermin	N	As the site is 0.57km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Traffic	N	As the site is 0.57km from the European site and operation of the sites would lead to less than 1% increase in HGV traffic on the Strategic Road Network, the hazard is considered to have negligible potential to cause a likely significant effect.
Impact of building	N	As the site is 0.57km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Litter	N	Ditto
Emissions of aerial pollutants	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Water use	Y	Ditto
Water pollution	Y	Ditto
Recreation related impacts	Y	A footpath borders part of the western boundary of the allocated site. As the path is part of an existing access track it is unlikely that the path would be physically affected by the allocation, but additional vehicle activity on the track may create some recreational displacement.
Details of other plans and projects which may affect the European site in-combination		
Sites: CEB16, 18a, 18b, 19, 21, 27. RBWM Local Plan Submission Version Incorporating Proposed Changes (2019)		
Are the potential impacts of the development of the proposed site likely to be significant?		
Alone?	Yes (C2)	
In-combination with other plans/projects	Yes	
European sites (including Ramsar) potentially affected	Windsor Forest and Great Park	
Site designation status	SAC	
Location of European site	Windsor and Maidenhead, Bracknell Forest; TQ023784	
Distance from European site	4.60km	
Brief description of European site	Windsor Forest and Great Park consists of a large area of continuous dry oak-dominated woodland and parkland and is made up of large population of ancient oak pollards trees. Being partially hollow and decayed, the oaks and beech afford habitats for a number of extremely rare and specialised insects. The predominant habitat is mixed woodland (95%), with areas of dry	

	<p>grasslands and inland water bodies. The soil and geology is a mix of acidic, clay, neutral and sand. The area recently been recognised as having rich fungal assemblages.</p> <p>Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer (Quercion robori-petraeae or Ilici-Fagenion). (Beech forests on acid soils). Old acidophilous oak woods homes the largest number of veteran oaks, Quercus spp. in Britain on sandy plains. (Dry oak-dominated woodland).</p> <p>It is recognised as international importance for its range of saproxylic invertebrates such as the rare beetle Lacon querceus. In addition, the site is thought to support the largest known populations of the Violet Click Beetle, Limoniscus violaceus, in the UK.</p>	
Conservation Objectives of the European site	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site. 	
Qualifying Features of the European site	<ul style="list-style-type: none"> • H9120. Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer (Quercion robori-petraeae or Ilici-Fagenion); Beech forests on acid soils. • H9190. Old acidophilous oak woods with Quercus robur on sandy plains; Dry oak-dominated woodland. • S1079. Limoniscus violaceus; Violet click beetle. 	
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The Site is approximately 4.6km from the SAC, and is therefore not likely to have a significant effect on the SAC through direct land take.
Removal of supporting habitat	N	As the site is 4.6km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Leachate	N	Ditto
Dust	N	Ditto

Noise	N	Ditto
Vibration	N	Ditto
Lighting	N	Ditto
Vermin	N	Ditto
Traffic	N	Ditto
Impact of building	N	Ditto
Litter	N	Ditto
Emissions of aerial pollutants	N	Ditto
Water use	N	Ditto
Water pollution	N	Ditto
Recreation related impacts	N	Ditto
Details of other plans and projects which may affect the European site in-combination		
<p>RBWM Local Plan Submission Version Incorporating Proposed Changes (2019)</p> <p>Maidenhead Golf Course (4.62km) - Housing development site, estimated capacity 2000</p> <p>Land south of Harvest hill Road, Maidenhead (4.85km) - Housing development site, estimated capacity 380</p> <p>Land south of Manor Lane, Maidenhead (5.39km) - Housing development site, estimated capacity 220</p> <p>Land west of Windsor, north and south of the A308, Windsor (4.44km) - Housing development site, estimated capacity 450</p> <p>Longcross Garden Village, Runnymede (4.14km) - Site allocation for new sustainable settlement incorporating a minimum of 1718 residential units and a range of supporting services and facilities.</p> <p><i>[Names and references to sites will be updated]</i></p> <p>Sites CEB2, 16, 17, 18a, 18b, 19, 21, 27, 28</p>		
Are the potential impacts of the development of the proposed site likely to be significant?		
Alone?	No	
In-combination with other plans/projects	No	

TABLE 13	
Site name and reference	Horton Brook Quarry (WA 2)
Location of Site	Windsor and Maidenhead; 51.4822815 - 0.5301374
Brief description of Site	<p>Current use: Mineral extraction (PP: 07/00590/FULL). An existing sand and gravel extraction site that is subject to phased restoration. The operator is promoting the site for new recycling opportunities associated with large local infrastructure projects. This could include general recycling of construction wastes; soil washing; recycling of road brush wastes and the controlled temporary storage of tarmac road planings for re-use off site.</p> <p>Proposal: New recycling opportunities associated with large local infrastructure projects. This could include general recycling of construction wastes; soil washing; recycling of road brush wastes and the controlled temporary storage of tarmac road planings for re-use off site.</p> <p>Waste Category: 1 (activities requiring open sites or ancillary open areas (involving biological treatment)); 2 (activities requiring open sites or ancillary open areas (not involving biological treatment)); 3 (activities requiring enclosed industrial premises (small scale)); 4 (activities requiring enclosed industrial premises (large scale)).</p> <p>Restoration: Site is to be restored to agriculture under existing planning permission.</p> <p>Approximate size of site: Whole site is 55 hectares. The potential waste operations would be located closest to the main site access, within an area where there are existing industrial sheds and site offices.</p> <p>Previous consideration within the plan making process: Previously allocated as Preferred Area 25 within the Waste Local Plan for Berkshire (1998) and Preferred Area 12 in the Replacement Minerals Plan (1995) incorporating alterations adopted in 1997 and 2001.</p>
European sites (including Ramsar) potentially affected	South West London Waterbodies
Site designation status	SPA / Ramsar
Location of European site	Windsor and Maidenhead; TQ023746
Distance from European site	0.71km
Brief description of European site	The South-West London Water Bodies comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The predominant habitat (70%) is made up of inland water bodies. There are also areas of improved grassland, humid and mesophile grassland and broad-leaved deciduous woodland. The

	soil and geology is a mix of alluvium, clay, and mud, neutral and sand. The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall <i>Anas strepera</i> and Shoveler <i>Anas clypeata</i> , both of which occur in numbers of European importance.	
Conservation Objectives of the European site	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site. 	
Qualifying Features of the European site	<ul style="list-style-type: none"> • A051 <i>Anas strepera</i>; Gadwall (Non-breeding) • A056 <i>Anas clypeata</i>; Northern shoveler (Non-breeding) 	
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The site is located 0.71km south east of the SPA / Ramsar. The European site will, therefore, not be impacted by direct land take.
Removal of supporting habitat	Y	It is likely that this site would be considered supporting SPA habitat on the basis of the habitats on site and proximity, potentially providing foraging/breeding habitat for qualifying feature species.
Leachate	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Dust	Y	As the site is 0.71km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Noise	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Vibration	N	As the site is 0.71km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Lighting	Y	As the site is 0.71km from the European site, the hazard is considered to have the potential to cause a likely significant effect.
Vermin	N	As the site is 0.71km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.

Traffic	N	As the site is 0.71km from the European site and operation of the site will lead to less than 1% increase in HGV traffic on the Strategic Road Network and less than 0.1% increase in traffic along the M4 at J5, the hazard is considered to have negligible potential to cause a likely significant effect.
Impact of building	N	As the site is 0.71km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Litter	N	Ditto
Emissions of aerial pollutants	Y	Due to the proximity of the European site, interest features are considered vulnerable to this hazard.
Water use	Y	Ditto
Water pollution	Y	Ditto
Recreation related impacts	Y	Footpaths border the eastern and part of the western boundaries of the allocated site. There is the potential for waste management activities at this site to make footpaths less desirable and thereby displace users.
Details of other plans and projects which may affect the European site in-combination		
Sites: 16, 18a, 18b, 21, 25, 27. RBWM Local Plan Submission Version Incorporating Proposed Changes (2019)		
Are the potential impacts of the development of the proposed site likely to be significant?		
Alone?	Yes (C2)	
In-combination with other plans/projects?	Yes	
European sites (including Ramsar) potentially affected	Windsor Forest and Great Park	
Site designation status	SAC	
Location of European site	Windsor and Maidenhead, Bracknell Forest; TQ023784	
Distance from European site	4.32km	
Brief description of European site	Windsor Forest and Great Park consists of a large area of continuous dry oak-dominated woodland and parkland and is made up of large population of ancient oak pollards trees. Being partially hollow and decayed, the oaks and beech afford habitats for a number of extremely rare and specialised insects. The predominant habitat is mixed woodland (95%), with areas of dry grasslands and inland water bodies. The soil and geology is a mix of acidic, clay, neutral and sand. The area recently been recognised as having rich fungal assemblages. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer	

	<p>(<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>). (Beech forests on acid soils). Old acidophilous oak woods homes the largest number of veteran oaks, <i>Quercus</i> spp. in Britain on sandy plains. (Dry oak-dominated woodland).</p> <p>It is recognised as international importance for its range of saproxylic invertebrates such as the rare beetle <i>Lacon querceus</i>. In addition, the site is thought to support the largest known populations of the Violet Click Beetle, <i>Limoniscus violaceus</i>, in the UK.</p>	
Conservation Objectives of the European site	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site. 	
Qualifying Features of the European site	<ul style="list-style-type: none"> • H9120. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion robori-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils. • H9190. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains; Dry oak-dominated woodland. • S1079. <i>Limoniscus violaceus</i>; Violet click beetle. 	
Potential causes of significant effect	Cited interest features likely to be sensitive to the hazard (Y/N)	Details
Land take	N	The Site is approximately 4.32km from the SAC, and is therefore not likely to have a significant effect on the SAC through direct land take.
Removal of supporting habitat	N	As the site is 4.32km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Leachate	N	Ditto
Dust	N	Ditto
Noise	N	Ditto
Vibration	N	Ditto
Lighting	N	Ditto

Vermin	N	Ditto
Traffic	N	Ditto
Impact of building	N	Ditto
Litter	N	Ditto
Emissions of aerial pollutants	N	As the site is 4.32km from the European site and based on the nature of the proposed operations, the hazard is considered to have negligible potential to cause a likely significant effect.
Water use	N	As the site is 4.32km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Water pollution	N	As the site is 4.32km from the European site and based on the lack of hydrological connectivity, the hazard is considered to have negligible potential to cause a likely significant effect.
Recreation related impacts	N	As the site is 4.32km from the European site, the hazard is considered to have negligible potential to cause a likely significant effect.
Details of other plans and projects which may affect the European site in-combination		
RBWM Local Plan Submission Version Incorporating Proposed Changes (2019) Maidenhead Golf Course (4.62km) - Housing development site, estimated capacity 2000 Land south of Harvest hill Road, Maidenhead (4.85km) - Housing development site, estimated capacity 380 Land south of Manor Lane, Maidenhead (5.39km) - Housing development site, estimated capacity 220 Land west of Windsor, north and south of the A308, Windsor (4.44km) - Housing development site, estimated capacity 450 Longcross Garden Village, Runnymede (4.14km) - Site allocation for new sustainable settlement incorporating a minimum of 1718 residential units and a range of supporting services and facilities. <i>[Names and references to sites will be updated]</i> Sites CEB2, 16, 17, 18a, 18b, 21, 25, 27, 28.		
Are the potential impacts of the development of the proposed site likely to be significant?		
Alone?	No	
In-combination with other plans/projects	No	

Appendix 3: Conservation Objectives and Site Vulnerabilities

Site information, Conservation Objectives and site vulnerabilities for European sites and their component SSSIs, relevant to the Appropriate Assessment, are provided in Tables 14 - 19.

Table 14: Relevant European Sites: description

Windsor Forest and Great Park SAC

Location: Windsor and Maidenhead, Bracknell Forest, TQ023784

SAC EU Code: UK0012586

Area: 1680.18ha

Windsor Forest and Great Park consists of a large area of continuous dry oak-dominated woodland and parkland and is made up of large population of ancient oak pollards trees. Being partially hollow and decayed, the oaks and beech afford habitats for a number of extremely rare and specialised insects. The predominant habitat is mixed woodland (95%), with areas of dry grasslands and inland water bodies. The soil and geology is a mix of acidic, clay, neutral and sand. The area recently been recognised as having rich fungal assemblages.

Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer (*Quercion roburi-petraeae* or *Ilici-Fagenion*). (Beech forests on acid soils). Old acidophilous oak woods homes the largest number of veteran oaks, *Quercus* spp. in Britain on sandy plains. (Dry oak-dominated woodland).

It is recognised as international importance for its range of saproxylic invertebrates such as the rare beetle *Lacon querceus*. In addition the site is thought to support the largest known populations of the Violet Click Beetle, *Limoniscus violaceus*, in the UK.

Annex I habitats that are a primary reason for selection of this site	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site	Annex II species that are a primary reason for selection of this site	Annex II species present as a qualifying feature, but not a primary reason for site selection
Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains	Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion roburi-petraeae</i> or <i>Ilici-Fagenion</i>)	Violet click beetle (<i>Limoniscus violaceus</i>)	Not Applicable

South West London Waterbodies SPA / RAMSAR

Location: Windsor and Maidenhead, TQ023746

SPA EU Code: UK9012171

Area: 828.14ha

The South-West London Water Bodies comprises a series of embanked water supply reservoirs and former gravel pits that support a range of man-made and semi-natural open water habitats. The predominant habitat (70%) is made up of inland water bodies. There are also areas of improved grassland, humid and mesophile grassland and broad-leaved deciduous woodland. The soil and geology is a mix of alluvium, clay, and mud, neutral and sand.

The reservoirs and gravel pits function as important feeding and roosting sites for wintering wildfowl, in particular Gadwall *Anas strepera* and Shoveler *Anas clypeata*, both of which occur in numbers of European importance.

Annex I Habitats			Annex I species		
			Gadwall <i>Anas strepera</i> , Shoveler <i>Anas clypeata</i>		
Ramsar Criterion 1	Ramsar Criterion 2	Ramsar Criterion 3	Ramsar Criterion 4	Ramsar Criterion 5	Ramsar Criterion 6
					Northern Shoveler (<i>Anas clypeata</i>) Gadwall (<i>Anas strepera</i>)

Table 15: Relevant European Sites: conservation objectives and key site sensitivities

Name of Site	EU Qualifying feature (Annex I and/or Annex II)	Conservation Objective	Key Site Sensitivities
Windsor Forest and Great Park SAC	H9120. Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i>); Beech forests on acid soils H9190. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains; Dry oak-dominated	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; ➤ The extent and distribution of qualifying natural habitats and habitats of qualifying species; ➤ The structure and function (including typical species) of qualifying natural habitats;	

	woodland S1079. <i>Limoniscus violaceus</i> ; Violet click beetle	<ul style="list-style-type: none"> ➤ The structure and function of the habitats of qualifying species; ➤ The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; ➤ The populations of qualifying species; and ➤ The distribution of qualifying species within the site. 	
South West London Water Bodies SPA/Ramsar	A051 <i>Anas strepera</i> ; Gadwall (Non-breeding) A056 <i>Anas clypeata</i> ; Northern shoveler (Non-breeding)	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> ➤ The extent and distribution of the habitats of the qualifying features; ➤ The structure and function of the habitats of the qualifying features; ➤ The supporting processes on which the habitats of the qualifying features rely; ➤ The population of each of the qualifying features; and ➤ The distribution of the qualifying features within the site. 	

Table 16: Relevant European Sites and their main priority pressures and threats⁶⁴

Name of Site	Site Priority Pressure or Threat	Further Description
SAC		
Windsor Forest and Great Park	<ul style="list-style-type: none"> • Forestry and Woodland Management 	<ul style="list-style-type: none"> • Loss of ancient/veteran oak trees due to gaps in age classes results in loss of beech forest habitat and reduced habitat for beetle.

⁶⁴ Source: European Site Individual Site Improvement Plans. Natural England: <http://publications.naturalengland.org.uk/category/6149691318206464>

	<ul style="list-style-type: none"> • Invasive Species • Disease • Air Pollution: Impact of atmospheric nitrogen deposition 	<p>Difficult to establish appropriate management measures.</p> <ul style="list-style-type: none"> • Oak processionary moth is within 20 miles of the site. This could accelerate loss of ancient oak populations. Rhododendron represents a great threat to scrub/grassland/flower rich supporting habitats. • Diseases of native oak are known from local areas. • Nitrogen deposition exceeds site relevant critical loads. Likely sources include Heathrow Airport. Air quality is an issue for old trees, fungi and lichens.
SPA		
South West London Waterbodies	<ul style="list-style-type: none"> • Public Access/Disturbance • Changes in Species Distributions • Invasive Species • Natural Changes to Site Conditions • Fisheries: Fish stocking • Inappropriate Weed Control 	<ul style="list-style-type: none"> • Potential to disturb protected species; and recreation may reduce suitable habitat (research to support this). • Gadwall numbers are reducing. • Large areas of wetland and terrestrial habitat are infested with <i>Crassula helmsii</i> which are reducing the invertebrate populations which birds feed on. Egyptian geese are showing increases. Potential that geese may compete with protected birds for habitat and food. • Maturation of gravel pits is altering roosting and feeding provision (e.g. bankside vegetation, water chemistry and aquatic biodiversity). • Stocking of fish for recreation angling negatively impacts upon bird populations. • Removal of waterweed impacts upon availability of food for bird species.

Table 17: Relevant European Sites and component SSSIs

European Site	SSSI Name	No, SSSI units and number within plan area
Windsor Forest and Great Park	Windsor Forest and Great Park	22, 22
South West London Water Bodies SPA/Ramsar	Kempton Park Reservoirs	2, 2
	Knight & Bessborough Reservoirs	1, 1
	Staines Moor	6, 6
	Thorpe Park No 1 Gravel Pit	1, 1
	Wraysbury & Hythe End Gravel Pits	6, 6
	Wraysbury No 1 Gravel Pit	1, 1
	Wraysbury Reservoir	1, 1

Table 18: Condition of SSSI units within Relevant European Sites [Data: March 2017] (Only including SSSI units within the buffer)

SSSI Name	Unit Name	Area (ha)	Total Area within plan buffer area	Condition	Condition Threat Risk
Windsor Forest and Great Park SAC					
Windsor Forest and Great Park	Hollidays Plain	134.86	1,778.85	Unfavourable – Recovering	No identified Condition Threat
	High Standing Hill	126.73		Unfavourable – Recovering	No identified Condition Threat
	Cranbourne Chase	182.16		Unfavourable – Recovering	No identified Condition Threat
	Cranbourne Park	75.17		Favourable	No identified Condition Threat
	South Forest	137.95		Unfavourable – Recovering	No identified Condition Threat
	Rosy Bottom	8.66		Favourable	No identified Condition Threat
	Snow Hill	71.9		Favourable	No identified Condition Threat
	Wildboar Enclosure	48.05		Favourable	No identified Condition Threat

	Great Meadow Pond	14.07		Favourable	No identified Condition Threat
	Frost Farm East	34.8		Unfavourable – Recovering	No identified Condition Threat
	Belvedere Wood	66.87		Unfavourable – Recovering	No identified Condition Threat
	Flemish	139.05		Favourable	No identified Condition Threat
	Rangers	76.12		Favourable	No identified Condition Threat
	Deer Pen West	142.6		Favourable	No identified Condition Threat
	Deer Pen East	130.34		Favourable	No identified Condition Threat
	Central	128.65		Favourable	No identified Condition Threat
	Sandpit	87.74		Favourable	No identified Condition Threat
	Manor Hill	55.24		Unfavourable – Recovering	No identified Condition Threat
	Norfolk	84.98		Unfavourable – Recovering	No identified Condition Threat
	Weedons	15.67		Unfavourable – Recovering	No identified Condition Threat
	Frost Farm West	13.05		Unfavourable – Recovering	No identified Condition Threat
	Gardens	4.35		Unfavourable – Recovering	No identified Condition Threat
South West London Water Bodies SPA and Ramsar					
Kempton Park Reservoirs	Kempton Park East Reservoir	20.12	25.3	Unfavourable – Recovering	Medium
	Redhouse Reservoir	5.16		Unfavourable – Recovering	Medium
Knight and Bessborough Reservoirs	Whole Site	63.43	63.43	Favourable	Medium

Staines Moor	Poyle Meadow	8.73	510.82	Unfavourable - Declining	No assessment of Condition Threat undertaken
	King George VI Reservoir	175.14		Favourable	No identified Condition Threat
	Staines Reservoirs	195.96		Favourable	No identified Condition Threat
	Shortwood Pond	10.9		Unfavourable – Recovering	Low
	Staines Moor	113.32=8		Favourable	Low
	Moor Lane	6.69		Favourable	No identified Condition Threat
Thorpe Park No 1 Gravel Pit	Thorpe Park No 1 Gravel Pit	42.53	42.53	Favourable	Medium
Wraysbury & Hythe End Gravel Pits	Northern Grass Area	4.98	117.21	Favourable	High
	Marshy Grassland with woodland scrub	12.03		Favourable	High
	Fishing Lake	46.74		Favourable	High
	Silverwings	21.68		Favourable	High
	Southeast Lake West	18.98		Favourable	High
	Southeast Lake East	12.78		Favourable	High
Wraysbury No 1 Gravel Pit	Whole Site	57.72	57.72	Favourable	High
Wraysbury Reservoir	Whole site	205.23	205.23	Favourable	Medium

Table 19: Condition of SSSI units within their European designated sites represented as percentage of total area [Data: March 2017]⁶⁵

SSSI Name	Area (ha)	Favourable	Unfavourable – Recovering	Unfavourable – No Change	Unfavourable – Declining	Partially Destroyed	Destroyed
Windsor Forest and Great Park	1778.85	51.84%	48.16%	0.00%	0.00%	0.00%	0.00%
Kempton Park Reservoirs	25.3	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Knight & Bessborough Reservoirs	63.43	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Staines Moor	510.82	96.16%	2.13%	0.00%	1.71%	0.00%	0.00%
Thorpe Park No 1 Gravel Pit	42.53	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Wraysbury & Hythe End Gravel Pits	117.21	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Wraysbury No 1 Gravel Pit	57.72	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Wraysbury Reservoir	205.23	100%	0.00%	0.00%	0.00%	0.00%	0.00%
Kempton Park Reservoirs	25.3	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%

⁶⁵ Only including the SSSI units within the 10km buffer and therefore some calculations/areas have been re-worked to only include relevant SSSI units

Appendix 4: Location and Site Boundary Maps

Figure 4: Minerals and waste sites allocated in the Proposed Submission Plan

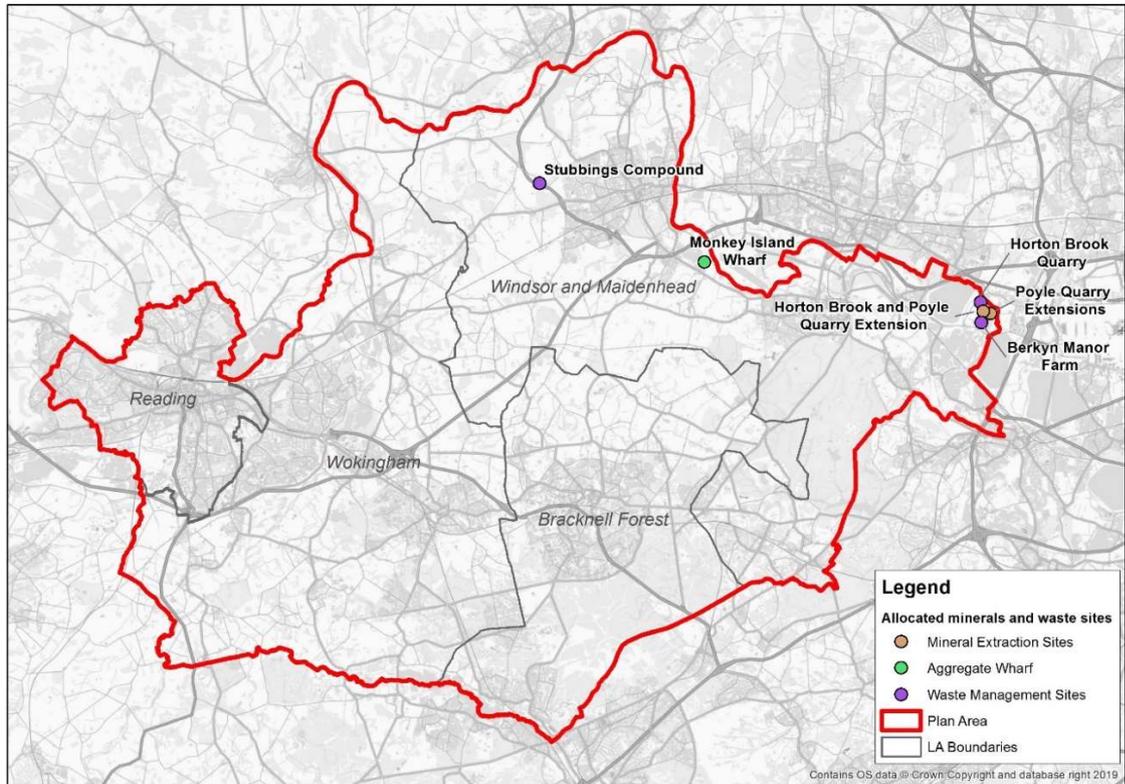


Figure 5: Horton Brook and Poyle Quarry Extension (MA 1)

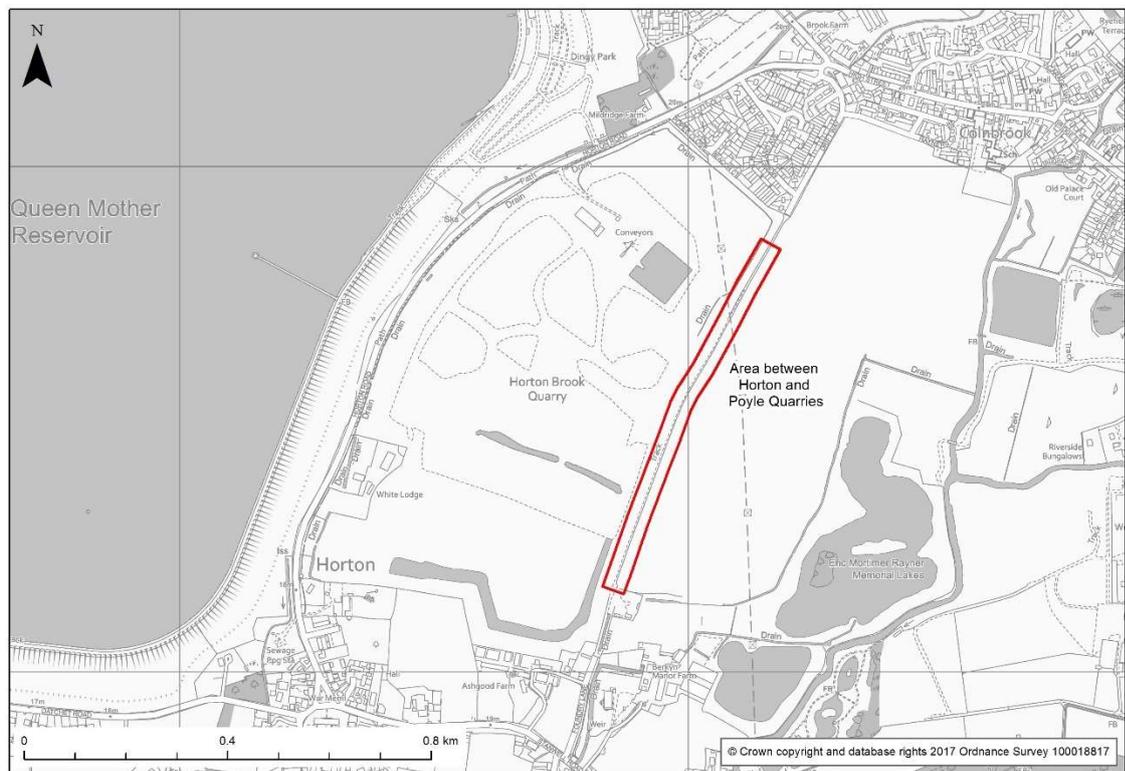


Figure 6: Poyle Quarry Extensions (MA 2)

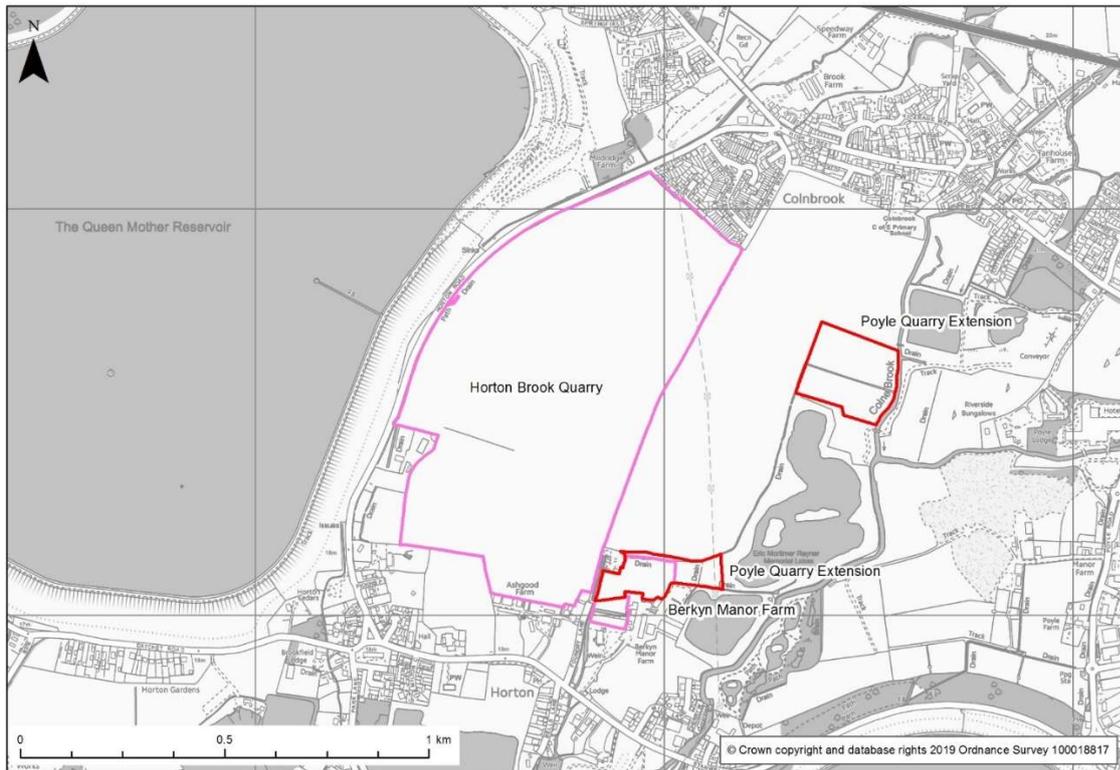


Figure 7: Berkyn Manor Farm (WA 1)

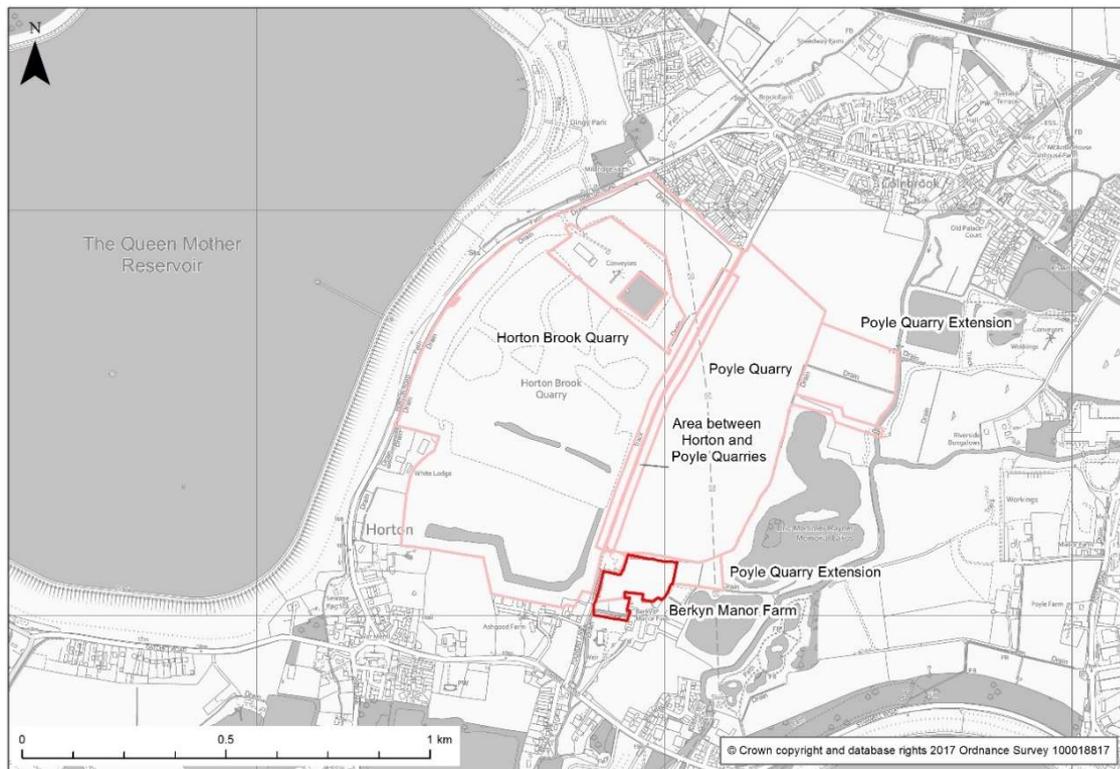
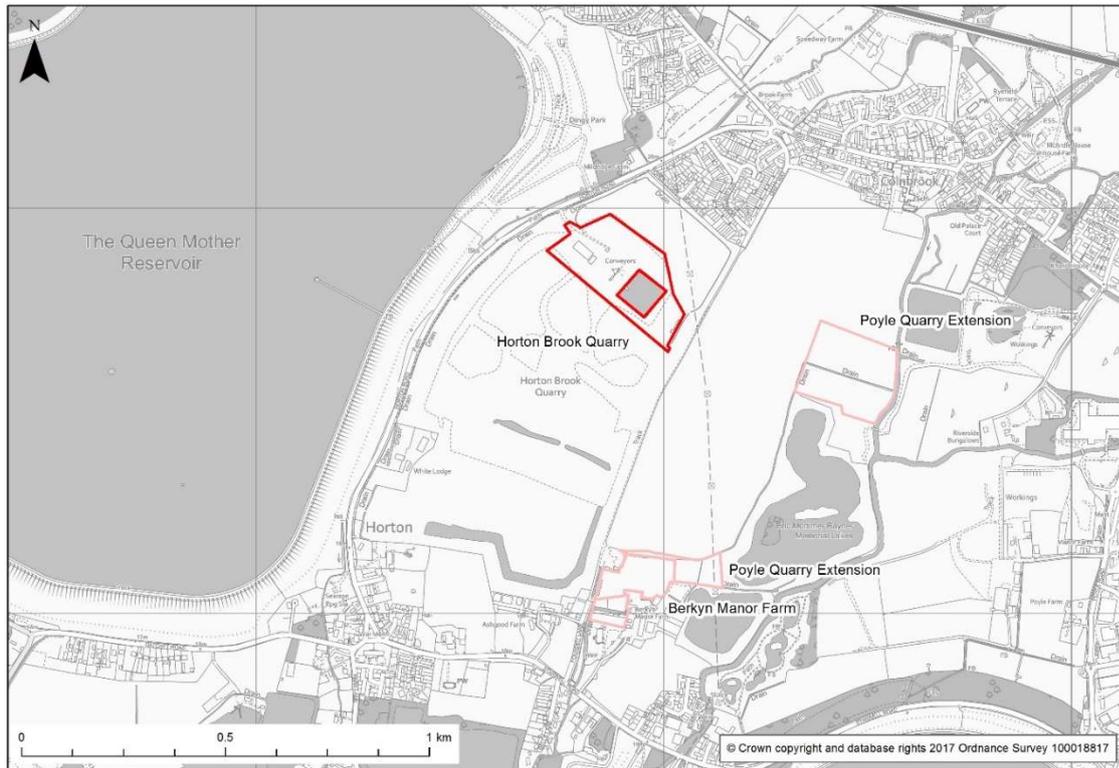


Figure 8: Horton Brook Quarry (WA 2)



Appendix 5: Proposed Development of Screened-In Sites

Table 20: Proposed development uses of screened-in allocated sites, as set out in Appendix A of the Proposed Submission Plan

Horton Brook and Poyle Quarry Extensions (MA 1)		
Existing use	Bridleway (Colne Valley Way).	
Proposal	Extension to Horton Brook and Poyle Quarry extracting 250,000 tonnes of sand and gravel with no processing on site.	
Area	3.75 ha	
Poyle Quarry Extensions (MA 2)		
Existing use	Arable fields	
Proposal	Extension to Poyle Quarry extracting 250,000 tonnes of sand and gravel with no processing on site.	
Area	4 ha and 2 ha	
Restoration	Agriculture at original ground levels.	
Berkyn Manor Farm (WA 1)		
Existing use	Working farm estate with some industrial use.	
Proposal	Green waste and / or energy recovery.	
	Category	Activity
	1	Open sites or ancillary open areas (possibly biological treatment)
	2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
	3	Enclosed industrial premises (small scale)
4	Enclosed industrial premises (large scale)	
Area	2.7 ha	
Restoration	Existing	
Horton Brook Quarry (WA 2)		
Existing use	Existing operational sand and gravel quarry.	
Proposal	Inert recycling.	
	Category	Activity
	1	Open sites or ancillary open areas (possibly biological treatment)
	2	Mix of enclosed buildings/plant and open ancillary areas (possibly involving biological treatment)
	3	Enclosed industrial premises (small scale)
4	Enclosed industrial premises (large scale)	
Area	55 ha	
Restoration	As per agreed restoration plan.	

Appendix 6: Development Considerations

1. Relevant Development Considerations for screened-in sites, reproduced from the Proposed Submission Plan⁶⁶, are listed in Table 21 below. The Proposed Submission Plan states in Appendix A that “development cannot be permitted if it may negatively affect the integrity of European protected sites. The development requirements for maintaining this integrity are identified with an asterisk (*) in the text and must be addressed.”
2. Furthermore, the Plan states that development considerations “will be assessed at the planning application stage, which should present the most appropriate responses, which are likely to include detailed site appraisals and Environmental Impact Assessment (EIA). These will identify what effects the development will have, and how to tackle them. All assessment information and suggested mitigation measures should be clearly identified and form part of the pre-application discussions and consultation with communities.”

Table 21: Relevant Development Consideration for screened-in allocated sites as set out in the Proposed Submission Plan

Sites allocated for minerals extraction
Horton Brook and Poyle Quarry Extension (MA 1)
<i>Ecology</i>
Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*.
Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*.
Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS.
Consideration of indirect impacts such as air and noise pollution.
Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area.
<i>Landscape and Townscape</i>
The Colne Valley Way Trail will need to be temporarily diverted and re-established as part of the restoration and applicants will need to work closely with the relevant authorities and the Colne Valley Regional Park.
The bridleway route and restoration of the site must seek to improve connectivity and enhance the local public access network and give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement ⁶⁷ .
<i>Transport</i>
A Transport Assessment or Statement is required.
An HGV Routing Agreement will also be required (or maintain existing).

⁶⁶ Central and Eastern Berkshire Joint Minerals and Waste Plan Proposed Submission Plan (July 2020).

⁶⁷ Joint Connectivity Statement between the Colne Valley Regional Park, Slough Borough Council, RBWM and the Buckinghamshire authorities.

<i>Flood Risk & Water Resources</i>
A Flood Risk Assessment and Hydrological/Hydrogeological Risk Assessment will be required.
Poyle Quarry Extensions (MA 2)
<i>Ecology</i>
Protection of South West London Waterbodies Special Protection Areas (SPA) and Ramsar*.
Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*.
Impacts on Arthur Jacob Nature Reserve Local Wildlife Sites (LWS), Queen Mother Reservoir LWS, Colne Brook LWS and Horton and Kingsmead Lakes LWS.
Consideration of indirect impacts such as air and noise pollution.
<i>Landscape & Townscape</i>
Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts.
Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area.
<i>Transport</i>
Provision of a new access will be required, most likely onto Poyle Road.
A Transport Assessment or Statement is required.
An HGV Routing Agreement will be required.
<i>Flood Risk & Water Resources</i>
Both sites partly within Flood Zones 2 and/or 3
The site is not located within a Source Protection Zone (SPZ) but the closest SPZ is located to the west of the site approximately under 1km away.
Proximity to major / minor aquifers, in addition to Source Protection Zones. A Flood Risk Assessment and Hydrological/Hydrogeological Risk Assessment will be required.
Consideration of the River Colne and its corridor
Sites allocated for waste management
Berkyn Manor Farm (WA 1)
<i>Ecology</i>
Protection of South West London Waterbodies Special Protection Area (SPA)/Ramsar*.
Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*.
Impacts to Wraysbury reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI.
Impacts to Queen Mother Reservoir Local Wildlife Site (LWS), Arthur Jacob Nature Reserve LWS, Colne Brook LWS Horton and Kingsmead Lakes LWS.
Consideration of hydrological impacts.
Retention and buffering of hedgerows within site.
Consideration of the Colne Valley Gravel Pits and Reservoirs Biodiversity Opportunity Area in restoration or operational landscaping.

The restoration of the site must give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement ⁶⁸
<i>Landscape & Townscape</i>
Existing vegetation should be conserved and protected, and additional buffer planting established to all boundaries.
Enhanced screening is required.
<i>Transport</i>
A new access onto Poyle Road is required for mineral use and further investigation is required for a suitable access onto Stanwell Road for waste uses.
A Transport Assessment or Statement is required.
A HGV Routeing Agreement will be required.
<i>Flood Risk & Water Resources</i>
A Flood Risk Assessment and Hydrogeological Assessment will be required.
Proximity to major / minor aquifers, in addition to Source Protection Zones.
Horton Brook Quarry (WA 2)
<i>Ecology</i>
Protection of South West London Waterbodies Special Protection Area (SPA)/Ramsar*.
Impacts on all roosting and foraging areas used by qualifying bird species of South West London Waterbodies SPA and Ramsar, in particular open grasslands within and adjacent to the site*.
Impacts to Wraysbury reservoir Site of Special Scientific Interest (SSSI), Staines Moor SSSI, Wraysbury No.1 Gravel Pit SSSI, Wraysbury and Hythe End Gravel Pit SSSI.
Impacts to Queen Mother Reservoir Local Wildlife Site (LWS), Arthur Jacobs Nature Reserve LWS, Colne Brook LWS, and Horton and Kingsmead LWS
Retention and protection of a part of the site for nature conservation purposes during operation.
Considerations of the objectives of the Colne Valley gravel Pits and Reservoirs Biodiversity Opportunity Areas (BOA) in restoration or operational landscaping proposals.
<i>Landscape & Townscape</i>
Proposals should ensure adequate space is set aside for the establishment of a strong new landscape structure for this group of sites (Poyle Quarry and extensions, Berkyn Manor and Horton Brook) including large scale native species tree belts.
Integrate new structures with effective screen planting, including along boundaries.
Restoration proposals should have reference to the Colne Valley Gravel Pits and Reservoirs BOA.
The restoration of the site must give consideration to the Colne and Crane Valleys Green Infrastructure Strategy (2019) and to the Joint Connectivity Statement ⁶⁹
<i>Transport</i>
A Transport Assessment or Statement is required.
An HGV Routeing Agreement will also be required (or maintain existing).
<i>Flood Risk & Water Resources</i>
A Flood Risk Assessment and Hydrological/Hydrogeological Assessment will be required.
Proximity to major / minor aquifers, in addition to Source Protection Zones.
Consideration of the Colne Brook and its river corridor.

⁶⁸ Joint Connectivity Statement between the Colne Valley Regional Park, Slough Borough Council, RBWM and the Buckinghamshire authorities.

⁶⁹ Ibid.

Appendix 7: Glossary

Appropriate Assessment (AA)

A self-contained step in the wider decision making process of Habitats Regulations Assessment (HRA), required under Article 6 of the EC Habitats Directive 1992. An Appropriate Assessment is only required where the competent authority determines that the plan or project is likely to have a significant effect on a European site, either alone or in combination with other plans or projects, and the plan or project is not directly connected with or necessary to the management of that site.

Area of Outstanding Natural Beauty (AONB)

An area designated under the National Parks and Access to the Countryside Act 1949 (as amended by the Countryside and Rights of Way (CROW) Act 2000) as being of national importance for its natural beauty, including flora fauna, geology and landscape, which should be conserved and enhanced.

Biodiversity

The total variety of life on earth, including all genes, species, ecosystems and the ecological processes of which they are part.

Climate Change

Long-term shift in weather patterns in a specific region or globally, involving changes in overall weather patterns, including precipitation, temperatures and cloud cover and thought to be leading to an increased frequency of extreme weather events. Much of the observed and predicted climate change is attributed to human activities that have resulted in increased concentrations of greenhouse gases in the atmosphere, such as carbon dioxide.

Climate Change Adaptation

Adjustments to natural or human systems in response to actual or expected climatic factors or their effects, including from changes in rainfall and rising temperatures, which moderate harm or exploit beneficial opportunities

Climate Change Mitigation

Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

Compensation

Measures taken to make up for the loss of, or permanent damage to, biological resources through the provision of replacement areas. Any replacement area should be similar to or, with appropriate management, have the ability to reproduce the ecological functions and conditions of those biological resources that have been lost or damaged.

Competent Authority

A competent authority is any Minister, Government Department, public or statutory undertaker, public body of any description or person holding public office. Used in

the Habitats Regulations to refer to the authority that is responsible for adopting, authorising or undertaking a plan or project.

Conservation Objectives

A statement of the nature conservation aspirations for a site, expressed in terms of the favourable condition that is sought for the species and/or habitats for which the site has been selected to attain.

Conservation Status

Four parameters are considered when assessing conservation status. For habitat these are range, area, structure and function (referred to as habitat condition) and future prospects. For species, the parameters are range, population, habitat (extent and condition) and future prospects. The Habitats Directive defines when the conservation status of the habitats and species it lists is to be considered as favourable.

Cumulative Impacts/effects

Impacts/effects that result from the incremental changes caused by other past, present or reasonably foreseeable actions together with the plan or project in question.

Development Plan Document (DPD)

Documents that form part of a statutory development plan such as a District Council Local Plan.

Favourable Condition

The condition represented by the achievement of the conservation objectives; the desired condition for a designated habitat or a species on an individual site.

Favourable Conservation Status

The conservation status of habitats and species is 'favourable' where all that is necessary to sustain the habitats and species in the long term is in place.

Habitats Directive

Abbreviated term for European Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (1992). It is the aim of this Directive to promote the conservation of certain habitats and species within the European Union and is implemented in the UK through the Habitats Regulations.

Habitats Regulations

Abbreviated term for The Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK legislation.

Habitats Regulations Assessment (HRA)

As required by the Habitats Directive and the Habitats Regulations, the identification of any aspects of an emerging plan or project that would have the potential to cause a likely significant effect on Natura 2000 and Ramsar sites (either in isolation or in combination with other plans and projects), and to begin to identify appropriate

mitigation strategies where such effects are identified (see also Appropriate Assessment).

In-Combination Effect

Effects, which may or may not interact with each other, but which could affect the same receptor or interest feature (i.e. a habitat or species for which a European Site is designated).

Integrity (European site)

The coherence of a site's ecological structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or levels of populations of the species for which it was classified.

Interest Feature

A natural or semi-natural feature for which a European site has been selected. This includes any Habitats Directive Annex I habitat, any Annex II species and any population of a bird species for which an SPA has been classified under the Birds Directive.

Local Development Documents (LDD)

Documents that form part of a statutory development plan (Development Plan Documents) or which amplify the policies of the statutory development plan (Supplementary Planning Documents).

Mitigation

Measures taken to avoid or reduce negative impacts. Measures may include locating the development and its working areas and access routes away from areas of high ecological interest, or timing works to avoid sensitive periods. See also compensation (which is separate from mitigation).

Natura 2000

Natura 2000 is an ecological network of protected areas in the territory of the European Union, comprising Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

National Planning Policy Framework (NPPF)

Government policy framework that sets out planning policies for England and how they are expected to be applied. It provides guidance for local planning authorities and decision-takers, both in preparing development plans and in development management.

Natural England

A non-departmental public body sponsored by the Department for Environment, Food and Rural Affairs (Defra), responsible for ensuring that England's natural environment, including its land, flora and fauna, freshwater and marine environments, geology and soils, are protected and improved. It also has a responsibility to help people enjoy, understand and access the natural environment.

NOx

Nitrogen Oxides.

Planning Practice Guidance (PPG)

A web-based resource which brings together national planning guidance on various topics into one place and provides further clarity on the interpretation of the National Planning Policy Framework (NPPF).

Precautionary Principle

An approach which takes avoiding action based on the possibility of significant environmental or other damage, even before there is conclusive evidence that the damage will occur.

Ramsar Site

An internationally important wetland designated under the Convention on Wetlands of International Importance especially as Wildfowl Habitat (Ramsar, Iran) 1971 and, as a matter of government policy, are afforded the same protection as a site designated under the EU Habitats and Birds Directives.

Regulation 18

Initial consultation stage of the preparation/review of a Local Plan under Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012.

Regulation 19

Pre-submission publication representations stage of the preparation/review of a Local Plan under Regulation 19 of the Town and Country Planning (Local Planning) (England) Regulations 2012.

Screening

Determination of whether or not an Appropriate Assessment is necessary.

Site of Special Scientific Interest (SSSI)

A site designated by Natural England as an area of special interest by reason of any of its flora, fauna, geological or physiographical features and of national importance.

SOx

Sulphur Oxides.

Special Area of Conservation (SAC)

A site designated under the European Commission Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora and part of the European network of Natura 2000 sites.

Special Protection Area (SPA)

A site designated under the European Commission Directive on the Conservation of Wild Birds and part of the European network of Natura 2000 sites.

Sustainable Development

The use of resources to meet the needs of the present without compromising the ability of future generations to meet their own needs.

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