Warwickshire County Council

Minerals Plan

Draft Habitat Regulations Assessment

October 2015

Warwickshire County Council

Working for Warwickshire

DRAFT SCREENING REPORT

Habitat Regulations Assessment (HRA)

For

Warwickshire Minerals Plan Summer 2015

A Report for Warwickshire County Council

September 2015

Produced by

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Non-Technical Summary

A Stage 1 screening of the Habitat Regulations Assessment (HRA) process was undertaken between June and September 2015 of the current summer 2015 version of the Warwickshire Minerals Plan by Ecology Services at Warwickshire County Council for the Planning Policy Team.

The screening exercise is required under Article 6 (3) of the European Commission's Habitats Directive (92/43/EEC). The exercise was undertaken following best practice guidance, principally using the Habitat Regulations Assessment Handbook (2015) produced by David Tyldesley Associates. A total of five European Sites were selected for consideration due to their location within or close to Warwickshire. These were then further refined following an assessment of the likely impacts of Warwickshire Minerals Plan to two key sites: Ensor's Pool Special Area of Conservation (SAC) in Nuneaton, Warwickshire and the River Mease SAC in the neighbouring counties of Derbyshire, Leicestershire and Staffordshire. The need to just consider these two European Sites was also agreed with the Environment Agency.

Ensor's Pool SAC is designated for its population of white-clawed crayfish (*Austropotamobius pallipes*), and the key potential vulnerabilities from the plan are considered to be: pollution from surface water flooding, an increase in water levels and potential to introduce non-native species.

The River Mease SAC qualifies as being of European importance due to the presence of white-clawed crayfish, spined loach (*Cobitis taenia*), bullhead (*Cottus gobio*) and otter (*Lutra lutra*). It is also an important example in the European context of a water course supporting the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation community. Key vulnerabilities of this site from the plan are from pollution (especially increased nutrient levels, particularly phosphorous), sedimentation and the introduction of non-native species. A small part of the River Mease catchment area lies within the north of Warwickshire. Hence pollution events here have the potential to impact the qualifying features of the River Mease SAC outside of Warwickshire.

An initial consultation exercise has been undertaken with Natural England and the Environment Agency. This draft report will be sent out to these bodies for further public consultation in September 2015.

The current draft of the Warwickshire Minerals Plan was subject to a screening assessment using the screening categories in the Habitat Regulations Handbook. None of the 9 Preferred Mineral Site Options or the 21 Rejected Sites were considered to have any Likely Significant Effects (LSE) on the River Mease SAC or Ensor's Pool SAC should they come forward for extraction in the timescale of the plan. For other planning applications under the plan (which theoretically could be anywhere in the county where the relevant resource exists) a total of six Minerals Core Strategy Policies were scoped in as having the potential to lead to a LSE on European Sites prior to the implementation of any mitigation measures.

The HRA report recommends some wording changes to Policy DM 1 to ensure the protection of Natura 2000 / European Sites through the implementation of the Warwickshire Minerals Plan. It also highlights some suggested indicative thresholds around Ensor's Pool SAC and the River Mease catchment area that should be used to trigger a project level HRA for minerals planning applications.

The In-combination Assessment has considered a number of plans on the advice of Natural England and has concluded there are currently no in-combination impacts to consider in relation to the Warwickshire Minerals Plan.

The next stage is to insert appropriate wording into DM 1 and then re-screen the Warwickshire Minerals Plan for LSE to European Sites. Should this re-screening result in no LSE from the plan and this can be agreed with the Environment Agency and Natural England, then the plan can be adopted in relation to considerations regarding the Habitats Directive. Should this not be possible, a full Stage 2 / Appropriate Assessment HRA of the plan will be required.

Acknowledgements

We are grateful to Ben Wood of Warwickshire County Council for his help with the creation of the Geographical Information Systems (GIS) project. We also appreciate the pre-submission advice on this HRA provided to us by Natural England and the Environment Agency.

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Glossary of Terms and Acronyms

AA	Appropriate Assessment
AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information System
CIEEM	Chartered Institute of Ecology and Environmental Management
CLG	Department for Communities and Local Government
DCS	Developer Contribution Scheme
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley Associates (Publishing)
EA	Environment Agency
ECJ	European Court Judgement
GIS	Geographical Information Systems
GQA	General Quality Assessment
HRA	Habitat Regulations Assessment
IROIT	Imperative Reasons of Overriding Interest Test
JNCC	Joint Nature Conservancy Council
LFRMS	Local Flood Risk Management Strategy
LAA	Local Aggregates Assessment
LDF	Local Development Framework
LSE	Likely Significant Effect
LTP3	Local Transport Plan 3
LUC	Land Use Consultants
MCIEEM	Full Member of the Chartered Institute of Ecology and Environmental Management
MDF	Minerals Development Framework
MSA	Minerals Safeguarding Area
N2K	Natura 2000 / European Sites
NO_x	Nitrogen Oxides
NPPF	National Planning Policy Framework
OLDSIS	Operations Likely to Damage the Special Interest of the Site
QGIS	Quantum Geographic Information System

PINS	The Planning Inspectorate
PM	Particulates
SACs	Special Areas of Conservation
SEA	Strategic Environmental Assessment
SIP	Site Improvement Plan
SPAs	Special Protection Areas
SNH	Scottish Natural Heritage
SSSI	Site of Special Scientific Interest
WCC	Warwickshire County Council
WDF	Waste Development Framework
WQMP	Water Quality Management Plan

1. Introduction

1.1. Background and Report Aim

Ecology Services at Warwickshire County Council (WCC) were contacted in June 2015 by the Planning Policy Team at Warwickshire County Council to undertake a 'Habitat Regulations Assessment' (HRA) of the emerging '*Warwickshire Minerals Plan Preferred Options and Policies*' dated Summer 2015 (hereafter referred to as the 'Warwickshire Minerals Plan') and subsequent updated policies provided to Ecology Services on 25.06.15 and 12.08.15 (WCC 2015a).

The Warwickshire Minerals Plan (formerly the '*Minerals Core Strategy*') is '*a Development Plan Document which sets out the spatial strategy, vision, objectives and policies for guiding minerals development in the County for a 15 year period*' i.e. until 2032 (WCC 2015a).

The Warwickshire Minerals Plan covers three broad areas:

1) Firstly, it highlights a total of 9 of the 30 identified sites that are the 'preferred' mineral sites to come forward for development during the plan period. These Preferred Minerals Sites relate to the extraction of aggregates, which can be both sand and gravel or crushed rock, but these sites only relate to sand and gravel extraction. The remaining 21 comprise the 'rejected sites' (WCC 2015b).
2) Secondly, the plan provides a number of Minerals Core Strategy Policies against which planning applications for of a range of minerals resources in Warwickshire can be tested throughout the plan period. This enables Warwickshire to keep its options open for planning applications anywhere in the county for a range of mineral extraction opportunities and / or recycled aggregates processing in the plan period.
3) Finally, the Development Management Policies ensure any development of the minerals resource in Warwickshire is sustainable, and measures are in place to allow appropriate monitoring of the implementation of the Warwickshire Minerals Plan.

An initial screening assessment was undertaken in June and July 2015 of the policies in the current Warwickshire Minerals Plan. This exercise allowed the consideration of if the plan, or policies within the plan could have a 'likely significant effect' (LSE) (as defined in Article 6(3) of the Habitats Directive and subsequent case law), '*either individually or in combination with other plans and projects*' on the integrity of any European Sites of nature conservation importance (i.e. Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or Ramsar sites). This screening exercise was updated in August 2015, following changes to the wording of the Warwickshire Minerals Plan.

As highlighted in the Planning Inspectorate's Guidance Note on HRA (August 2013), '*HRA is an iterative process and the emphasis should be on avoiding likely significant effects (LSE)*' (hereafter known as the PINS Advice Note 10).

The interpretation of a 'likely significant effect' or LSE, is set out in case law and guidance. The Habitats Directive highlights that an Appropriate Assessment should be triggered if any plan or project could have a LSE either '*individually or in combination with other plans or projects*'. In the European Court Judgement (ECJ) Ruling C-127/02, Waddenzee, the Habitat Regulations Assessment Handbook (hereafter known as the HRA Handbook 2015), states that '*irrespective of the normal English meaning of 'likely', in this statutory context 'a likely significant effect' is a 'possible significant effect'; one whose occurrence cannot be excluded on the basis of objective information*'. The HRA Handbook 2015 continues that '*However, to be excluded on the basis of objective information, the probability of a significant effect does not necessarily have to be zero.*

An effect could be excluded from assessment if the risk of it occurring would be an extremely low probability'. '*A significant effect is any effect that would undermine the conservation objectives for a European site.* ***There must be a causal connection or link between the subject plan or project and the qualifying features of the site which could result in possible significant effects on the site.*** *These effects may be direct or indirect and the existence and scope of possible effects must be judged on a case-by-case basis*'.

If a LSE is anticipated from any aspect of the plan or in-combination with other plans and projects, then a more detailed Appropriate Assessment (AA) will be required to be undertaken with the appropriate consideration of mitigation measures and alternative solutions prior to any decision to adopt the plan. This further work if required will be '*carried forward in a focussed and tightly scoped AA*' (PINS Advice Note 10).

Figure 1 below from the HRA Handbook outlines '*How the Habitats Regulations Assessment process influences decisions*'.

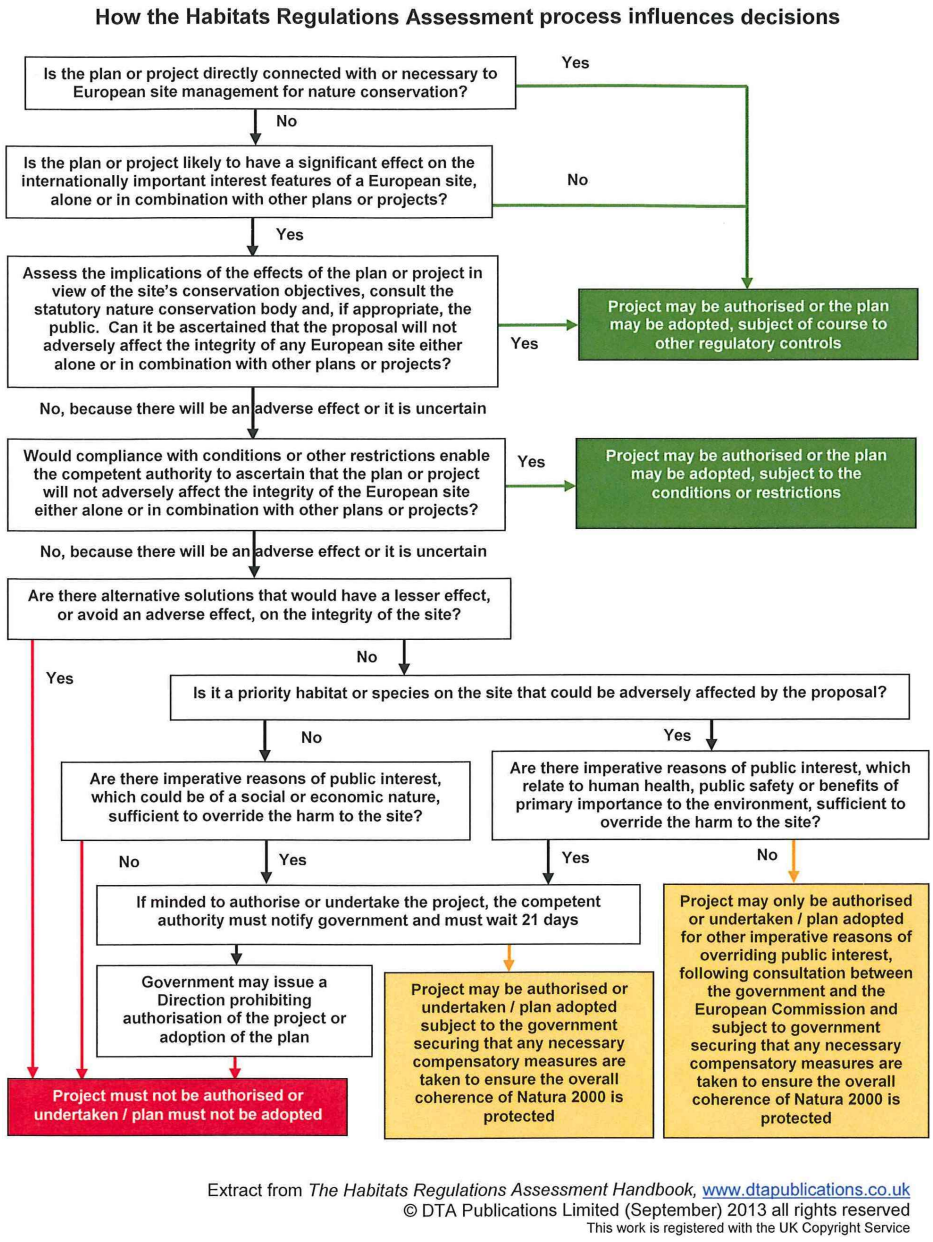

Figure 1: How the HRA process influences decisions (HRA Handbook 2013)

1.2. Habitats Regulation Assessments

HRAs are required under Article 6 of the European Habitats Directive (92/43/EEC on the conservation of natural habitats and of wild fauna and flora). Article 6 also covers the requirements for HRA under the Birds Directive (on conservation of wild birds 79/409/EC, now codified directive 2009/147/EC) to the effect that only one assessment is required for all European Sites (also known as Natura 2000 sites or N2K sites) covered by both directives.

Paragraphs 109, 113, 118 and 119 of the National Planning Policy Framework (NPPF) are relevant to HRAs. Specifically, paragraph 118 states that any '*sites identified, or required as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs and listed or proposed Ramsar sites… should be given the same protection as European sites*'.

Article 6 (1) and 6 (2) of the Habitats Directive 92/43/EEC set out the obligations of Member States on European sites:

Article 6 (1)

'*For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites*'

Article 6 (2)

'*Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive'.*

Article 6 (3) outlines when an HRA should be undertaken:

'*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having obtained the opinion of the general public.*'

Article 6 (4) discusses alternative solutions and the Imperative Reasons of Overriding Interest Test (IROIT)

'*If, in spite of a negative assessment of the implications for the site in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest'.

In England, all European Sites are designated by Defra and will have at least one 'qualifying feature' (either a habitat, species or both) to be designated as European Sites. These designations are underpinned by the national level designation of Sites of Special Scientific Interest (SSSI). SSSI designations cover broader conservation issues than just the qualifying features of a European Site and can have different site boundaries.

A HRA deals only with negative effects on the qualifying features of European Sites. This HRA deals only with SACs, as there are no SPAs or Ramsars within a reasonable proximity (15km, see Figure 5) to Warwickshire that could be impacted by the Warwickshire Minerals Plan. The SSSI data for the European Sites selected, in addition to direct consultation with Natural England has been used in order to determine the current conservation status and condition assessment of the selected European Sites.

The HRA for the Warwickshire Minerals Plan comes under the remit of Regulations 102 to 105 of the Conservation of Habitats and Species Regulations 2010 (as amended).

The HRA Handbook 2015 and other guidance, divides the HRA process into 4 distinct stages. This is illustrated in Figure 2 below.

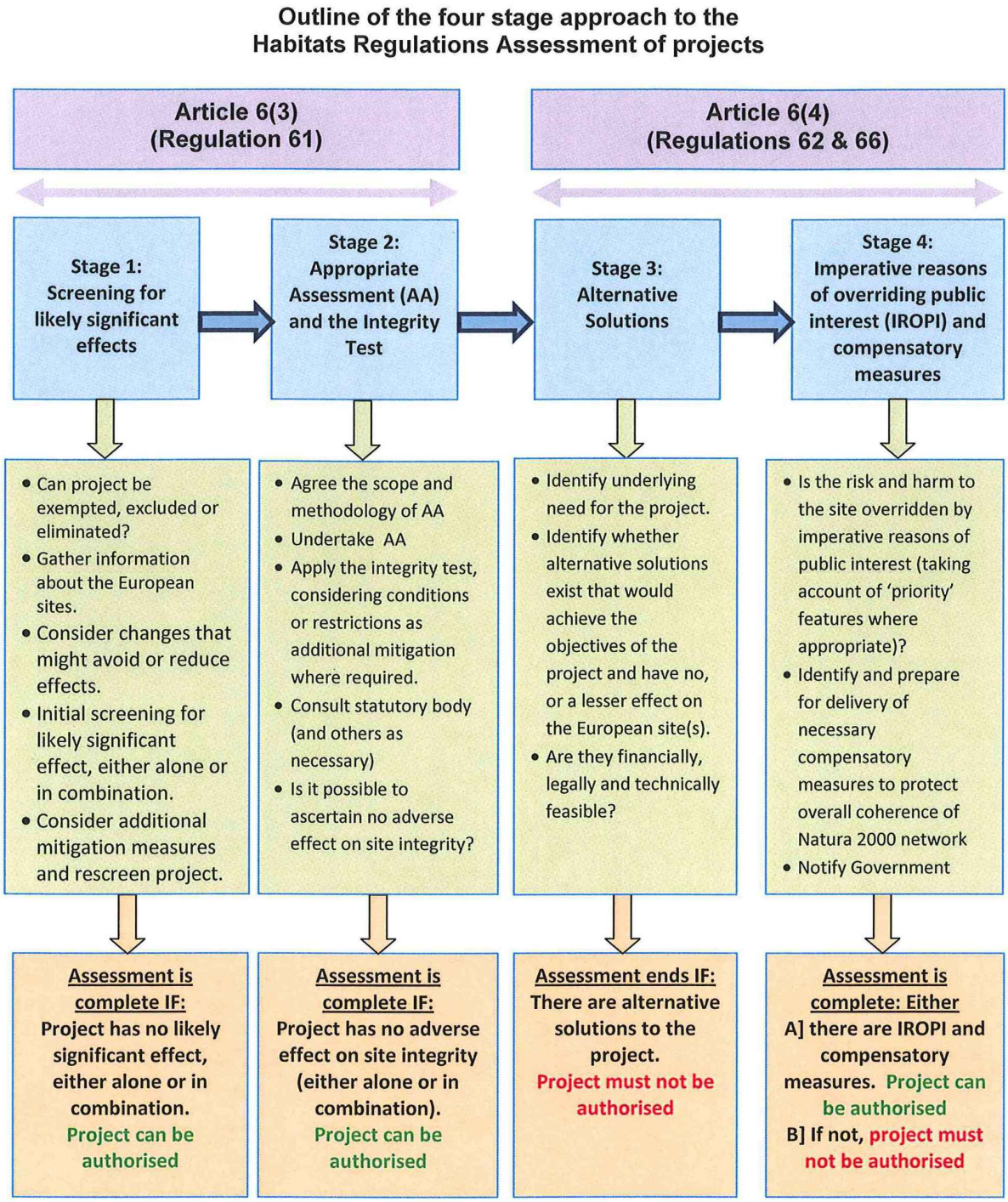

Figure 2: Outline of the four stage approach to HRA (HRA Handbook 2013)

This report relates only to Stage 1 of the process which involves the screening for any LSE to ascertain if an AA will be triggered. The HRA Handbook 2015 does however confirm that if appropriate mitigation measures can be incorporated into the plan or project at this screening stage (known as 'incorporated mitigation measures'), that result in no LSE when the plan is re-screened with these new measures, an AA will not be required. Figure 3 below, highlights the steps in Stage 1 screening for LSE covered in this report.

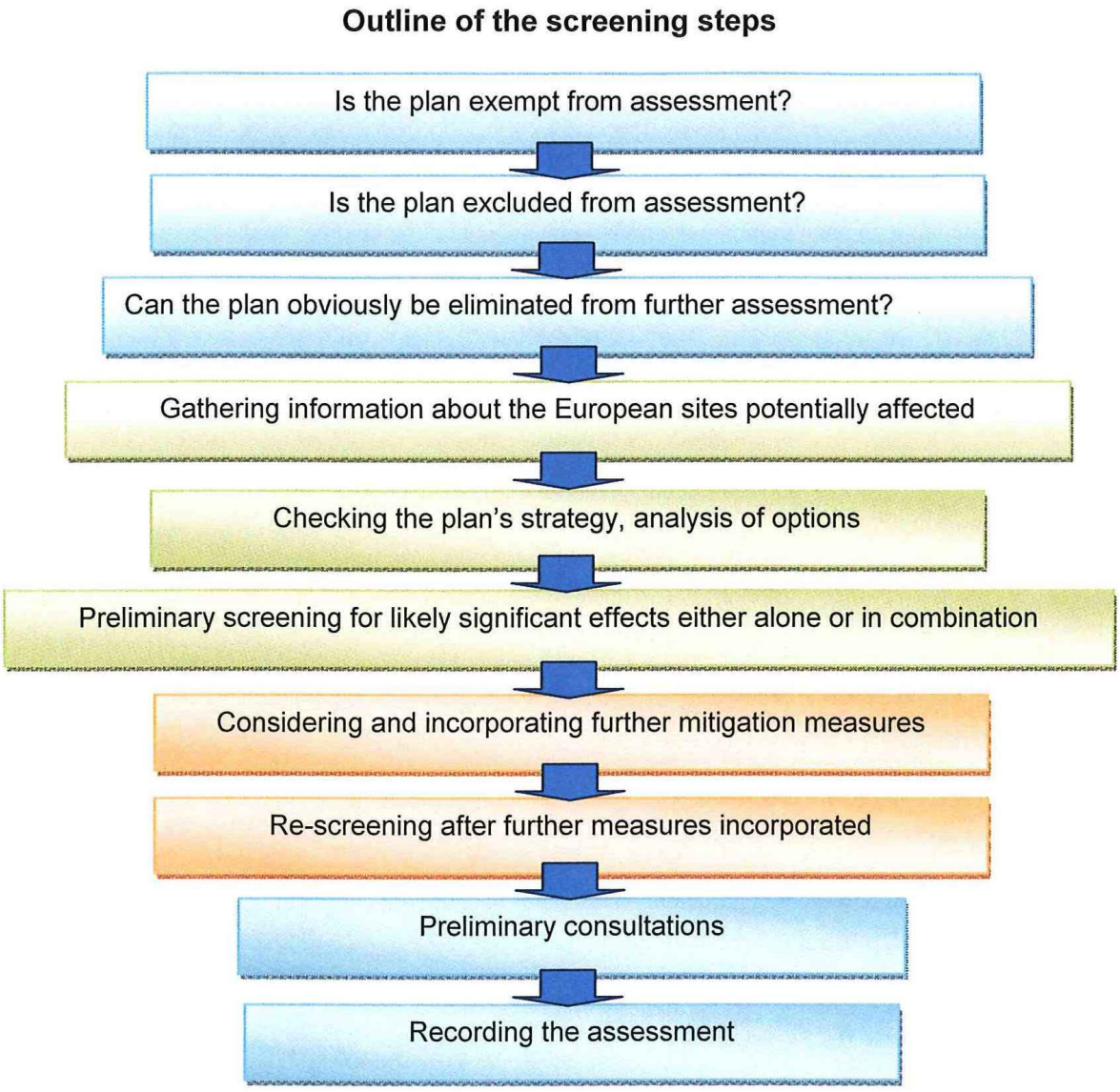

Figure 3: Outline of screening steps for Stage 1 of an HRA (from HRA Handbook 2013)

An In-combination Assessment of other plans and projects in the area is also required as part of the HRA process at both the screening and AA stage. As stated in the draft 2013 Habitat Regulations Assessment Guidance produced by Defra and highlighted in the HRA handbook 2015 '*the effects of a plan or project must be considered both individually and in-combination with other relevant plans and projects. This is a requirement of the Habitats Directive which helps ensure that European Sites are not damaged by the additive effects of multiple plans or projects*'. As with the screening of the Warwickshire Minerals Plan, the HRA also needs to ensure that any potential impacts from other plans or projects in the area on a European Site (that could increase the impacts already identified for Warwickshire Minerals Plan on a cumulative basis) are identified and measures are put in place to protect European Sites from these cumulative effects. An In-combination Assessment of the Warwickshire Minerals Plan is provided in Section 4.

Figure 4 below outlines the ten steps in the In-combination Screening Assessment methodology as stated in the HRA handbook 2015.

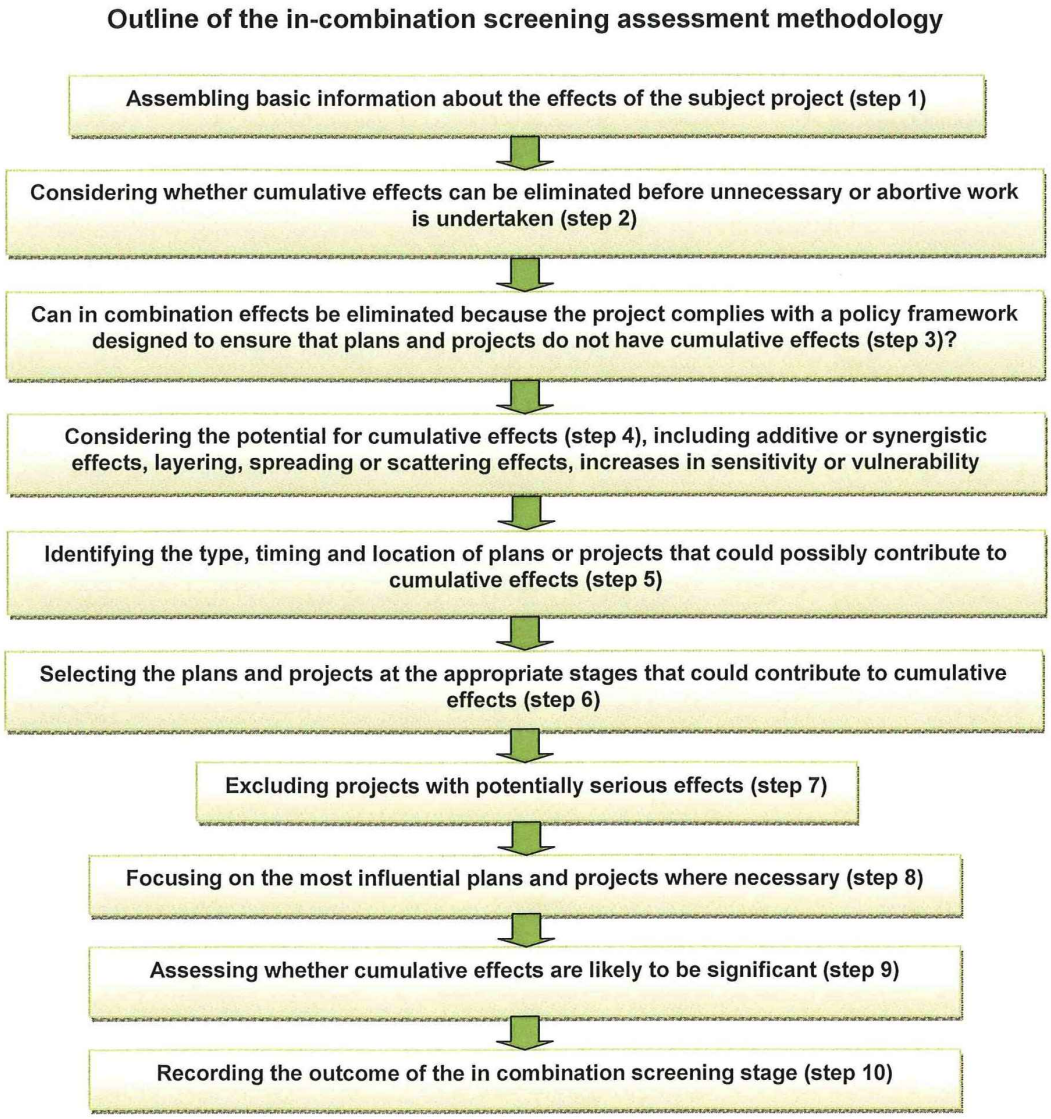

Figure 4: Ten steps in the screening assessment of in-combination effects (from HRA Handbook 2013)

1.3. Strategic Environmental Assessment

In parallel with this HRA, a scoping report for the Strategic Environmental Assessment (SEA) is also being produced for the minerals plan by the consultants Atkins following the requirements of the SEA Directive (2001/42/EC). Similarly to HRA, SEA is a process that should be embedded into plan making and be iterative. Whilst it may be possible to combine early stages of both assessments they cannot be fully integrated and require separate reporting. One key difference is that SEA covers all environmental effects likely to be significant, not just those that could

negatively affect the integrity of European Sites. Table 1 below from David Tyldesley Associates (DTA) 2014 highlights the key differences between the two processes.

SEA	**HRA**
Informs decisions on plans	Informs but can also determine decisions on plans
Precautionary principle used with care as good practice	Precautionary principle embedded in process as a matter of law
All environmental effects likely to be significant	Limited to likely significant effects on qualifying features of European sites
Statutory public consultation	Discretionary public consultation
Specified timing scoping and content of an environmental report	No duty to report or specification for the record
Good understanding and experience, lots [of] examples	Less understanding and experience, fewer examples

Table 1: From DTA December 2014, notes from Chartered Institute of Ecology and Environmental Management (CIEEM) course on the HRA of plans.

Ecology Services at Warwickshire County Council were copied in on a Compatibility Assessment between the objectives of the Warwickshire Minerals Plan and the objectives of the Sustainability Appraisal of the Warwickshire Minerals Plan produced by Atkins for Warwickshire County Council in June 2015 (West 2015). Objective 1 of the Sustainability Assessment of the Warwickshire Minerals Plan is to '*Conserve and enhance biodiversity*'. This objective was tested against the objectives of the Warwickshire Minerals Plan and was noted to be broadly compatible with the all the objectives of the Warwickshire Minerals Plan with the exception of Objective 1 of the Warwickshire Minerals Plan. The wording of Objective 1 is as follows: '*To secure a steady and adequate supply of aggregates and other minerals required to support sustainable economic growth at the national, sub-regional and local level*'. The compatibility of this objective was considered to be dependent on the implementation measure, given that biodiversity impacts could result from development associated with minerals development on sites with nature conservation interest. The Compatibility Assessment did, state that '*these impacts could potentially be mitigated in some circumstances and post extraction provides an opportunity for biodiversity enhancement*'.

2. Methodology

2.1. HRA Screening Guidance

The methodology used for the screening of the Warwickshire Minerals Plan dated Summer 2015 with further updated policy wording provided in June and August 2015 is primarily based on the recommendations outlined in The Habitat Regulations Assessment Handbook 2015 by DTA publishing. Key guidance used in this screening assessment is highlighted below and in Section 7.

- The HRA Handbook 2015 to which Warwickshire County Council is a current subscriber. The screening categories used in Table 8, Section 3.5 are directly from the handbook;
- The PINS Advice Note 10 in August 2013 (Version 5); and
- Scottish Natural Heritage (SNH) Habitats Regulations Appraisal of Plans. Guidance for Plan-Making Bodies in Scotland (Version 2.0) August 2012 (hereafter, known as the SNH guidance).

Reference is also made to Warwickshire's HRA of the local transport plan dated May 2010 (both with author permission); Local Flood Risk Management Strategy (LFRMS) August 2015 (WCC 2015d); and Waste Development Framework – Core Strategy (WCC undated); and of the Minerals and Waste Development Frameworks HRA (WCC 2008).

2.2. Site Selection of European Sites

Table 2 in Section 3.1 from the HRA Handbook was used to help select which European Sites to consider at the screening stage. Information required for assessment on each European Site selected was obtained from Natural England's website and through direct consultation.

Initial consultation was also undertaken with the Environment Agency (24.06.15, 01.07.15, 15.07.15, 17.07.15, 09.08.15, 11.09.15 & 16.09.15) and Natural England (24.06.15, 03.07.15, 10.07.15, 15.07.15, 16.07.15, 28.07.15, 29.07.15 & 24.08.15) by telephone and email. These authorities were consulted on the scope of the assessment and the nature of any other plans and projects that would need to be considered as part of the In-combination Assessment. Further information on the current situation regarding the conservation status of Ensor's Pool SAC was also obtained. A further scoping of the plans and projects to be considered as part of the In-combination Assessment was undertaken as per Table 11 to ensure the In-combination Assessment was tightly focussed.

In email correspondence on 10.07.15 Natural England confirmed that a buffer of 15km around Warwickshire was considered to be a sufficient distance for consideration of the impacts of the Warwickshire Minerals Plan on European Sites as part of the HRA (see Appendix 2, Section 2.1).

In letter correspondence on 16.09.15 the Environment Agency confirmed that the only sensitive receptors in terms of SACs are '*Ensor's Pool and The River Mease Catchment*' (see Appendix 2, Section 2.2).

A QGIS project has been developed to help scope and refine the screening exercise for this HRA and enabled the production of all maps within this report (see Figures 5 to 11 and Figures 11 to 22 in Appendix 1).

2.3. Limitations and Assumptions

This HRA is based on the latest available information on the European Sites selected, provided by Natural England at the time of writing. It is likely that in the future the conservation status, objectives and condition of European Sites may change. Natural England is also developing new

and more detailed Conservation Objectives but these are not available at the time of writing. Future HRAs will need to use this new information, as it becomes available. Ecology Services at Warwickshire County Council understand more detailed supplementary information on the River Mease SAC should be available from Natural England by March 2016 (see Appendix 2, Section 2.1.3). In March 2015, the Ribble case in the UK courts[1] has suggested the need to consider older more detailed Conservation Objectives for European Sites which are currently not published on Natural England's website. We have obtained the 2008 Conservation Objectives for Ensor's Pool SSSI and the 2012 Conservation Objectives for the River Mease SAC from Natural England. These are summarised in Appendix 3 of this report. We have also received correspondence from Natural England (dated 24.08.15, extract provided in Appendix 2, Section 2.1.1), that our 'primary focus' should be on the European Site Conservation Objectives for the relevant European Site which are provided in Table 3 of this report.

It should also be noted that in the autumn of 2014, the population of white-clawed crayfish at the only European Site in Warwickshire (Ensor's Pool SAC) was not located during surveys. Natural England is currently investigating the potential causes of this loss and what actions can be taken in future to address this. At this stage on the recommendation of Natural England, in correspondence received on 03.07.15 (see Appendix 2, Section 2.1.1), the HRA has been undertaken on a '*business as usual basis*' as the SSSI/SAC designation has not changed at the time of writing. Future HRAs will need to check for changes and use the latest Conservation Objectives and designations, and update the HRA accordingly.

The European Site selection for this HRA is based on the most recent GIS data available at Warwickshire County Council and provided by the Planning Policy Team at Warwickshire County Council. The Warwickshire Minerals Plan is at an iterative stage so any further proposed changes in the plan and policies within it will need to be checked for LSE to European Sites.

[1] RSPB v Secretary of State for the Environment Food and Rural Affairs, BAE Systems (Operations) Ltd and Natural England, 18th March 2015, [2015] EWHC Civ 227, referred to as the *Ribble* Case.

3. The Screening Assessment

3.1. Scanning and Site Selection of European Sites for Consideration

A total of five European Sites have been chosen to assess based on their geographic location (within Warwickshire or a 15km buffer) and their potential to be impacted by the plan. Table 2 below from the HRA Handbook 2015 has also been used to aid in the selection process.

Scanning and site selection list for sites that could potentially be affected by the plan

Types of plan	Sites to scan for and check	Names of sites selected
1. All plans (terrestrial, coastal and marine)	Sites within the geographic area covered by or intended to be relevant to the plan.	Ensor's Pool Bredon Hill Lyppard Grange Ponds Cannock Extension Canal River Mease As per a 15km buffer agreed with Natural England (see Figure 5).
2. Plans that could affect the aquatic environment	Sites upstream or downstream of the plan area in the case of river or estuary sites	River Mease
	Open water, peat land, fen, marsh and other wetland sites with relevant hydrological links to land within the plan area, irrespective of distance from the plan area	None
3. Plans that could affect the marine environment	Sites that could be affected by changes in water quality, currents or flows; or effects on the inter-tidal or sub-tidal areas or the sea bed, or marine species	N/A
4. Plans that could affect the coast	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes	N/A
5. Plans that could affect mobile species	Sites whose qualifying features include mobile species which may be affected by the plan irrespective of the location of the plan's proposals or whether the species would be in or out of the site when they might be affected	River Mease Ensor's Pool
6. Plans that could increase recreational pressure on European sites potentially vulnerable or sensitive to such pressure	Such European sites in the plan area	N/A
	Such European sites within an agreed zone of influence or other reasonable and evidence-based travel distance of the plan area boundaries that may be affected by local recreational or other visitor pressure from within the plan area	N/A
	Such European sites within an agreed zone of influence or other evidence-based longer travel distance of the plan area, which are major (regional or national) visitor attractions such as European sites which are National Nature Reserves where public visiting is promoted, sites in National Parks, coastal sites and sites in other major tourist or visitor destinations	N/A
7. Plans that would increase	Sites in the plan area or beyond that are used for, or could be affected by, water abstraction irrespective of	Ensor's Pool

the amount of development	distance from the plan area	River Mease
	Sites used for, or could be affected by, discharge of effluent from waste water treatment works or other waste management streams serving the plan area, irrespective of distance from the plan area	Ensor's Pool River Mease
	Sites that could be affected by the provision of new or extended transport or other infrastructure	Ensor's Pool River Mease
	Sites that could be affected by increased deposition of air pollutants arising from the proposals, including emissions from significant increases in traffic	Ensor's Pool River Mease
8. Plans for linear developments or infrastructure	Sites within a specified distance from the centre line of the proposed route (or alternative routes), the distance may be varied for differing types of site / qualifying features and in the absence of established good practice standards, distance(s) to be agreed by the statutory nature conservation body	Ensor's Pool River Mease
9. Plans that introduce new activities or new uses into the marine, coastal or terrestrial environment	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the new activities proposed by the plan	Ensor's Pool River Mease
10. Plans that could change the nature, area, extent, intensity, density, timing or scale of existing activities or uses	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the changes to existing activities proposed by the plan	Ensor's Pool River Mease
11. Plans that could change the quantity, quality, timing, treatment or mitigation of emissions or discharges to air, water or soil	Sites considered to have qualifying features potentially vulnerable or sensitive to the changes in emissions or discharges that could arise as a result of the plan	Ensor's Pool River Mease
12. Plans that could change the quantity, volume, timing, rate, or other characteristics of biological resources harvested, extracted or consumed	Sites whose qualifying features include the biological resources which the plan may affect, or whose qualifying features depend on the biological resources which the plan may affect, for example as prey species or supporting habitat or which may be disturbed by the harvesting, extraction or consumption	N/A
13. Plans that could change the quantity, volume, timing, rate, or other characteristics of physical resources extracted or consumed	Sites whose qualifying features rely on the non-biological resources which the plan may affect, for example, as habitat or a physical environment on which habitat may develop or which may be disturbed by the extraction or consumption	Ensor's Pool River Mease
14. Plans which could introduce or increase, or alter the timing, nature or location of disturbance to species	Sites whose qualifying features are considered to be potentially sensitive to disturbance, for example as a result of noise, activity or movement, or the presence of disturbing features that could be brought about by the plan	Ensor's Pool
15. Plans which could introduce or increase or change the timing, nature or location of light or noise pollution	Sites whose qualifying features are considered to be potentially sensitive to the effects of changes in light or noise that could be brought about by the plan	Ensor's Pool

16. Plans which could introduce or increase a potential cause of mortality of species	Sites whose qualifying features are considered to be potentially sensitive to the source of new or increased mortality that could be brought about by the plan	Ensor's Pool River Mease

Table 2: Table used for scanning and site selection from HRA Handbook 2013

The following five sites have been selected for consideration in this HRA. They are all Special Areas of Conservation (SACs):

- Ensor's Pool SAC
- Bredon Hill SAC
- Lyppard Grange Ponds SAC
- Cannock Extension Canal SAC
- River Mease SAC

The location of each of these European Sites in relation to Warwickshire's boundary is provided in Figure 5 below including the catchment of the River Mease SAC.

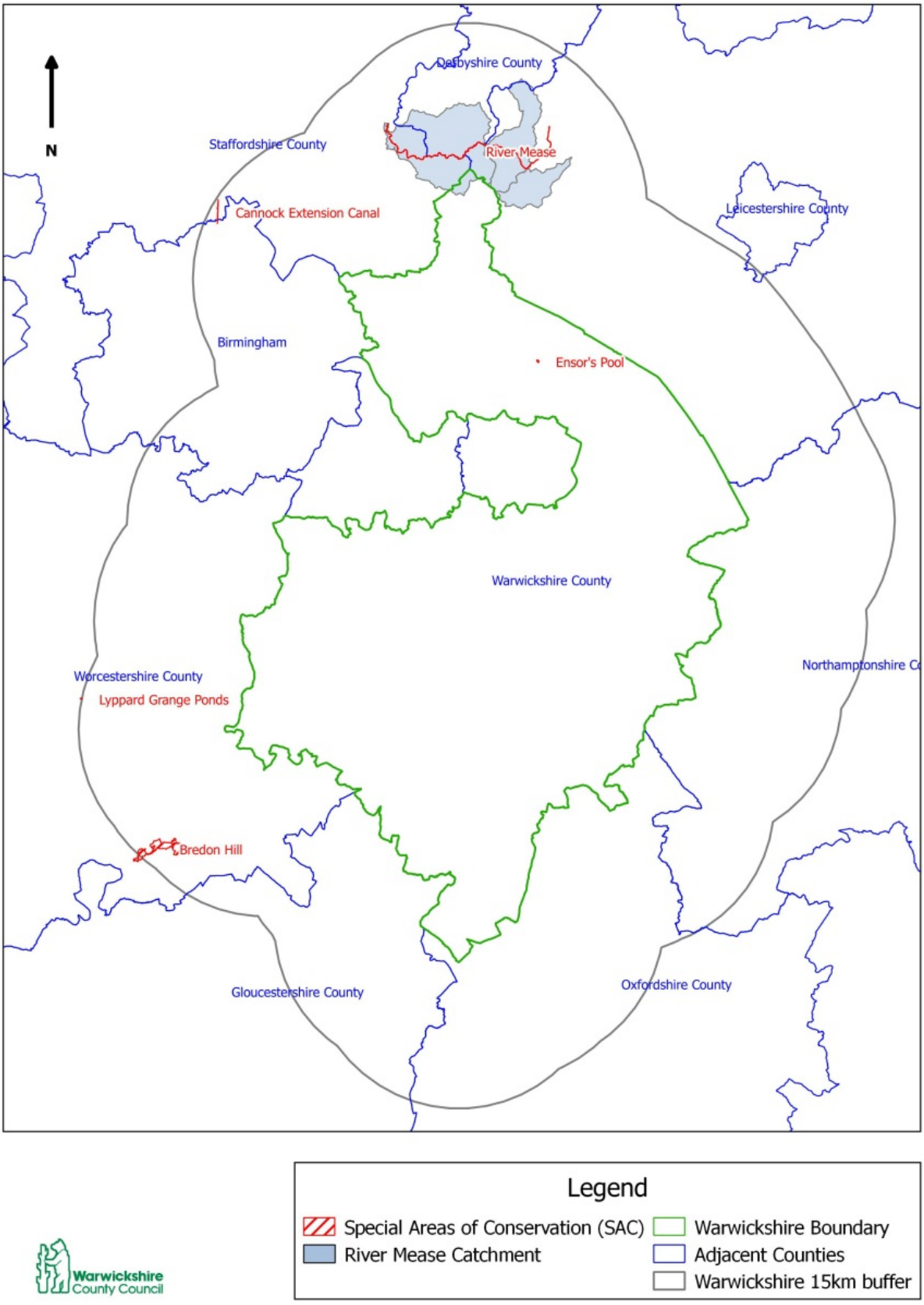

Figure 5: Location of SACs within a 15km buffer zone around Warwickshire

3.2. Site Descriptions

The following section provides descriptions of the selected sites using information sourced from Natural England, Joint Nature Conservancy Council (JNCC) and WCC 2010. Table 3 provides the following key information for each SAC:

- Qualifying features;
- Latest Conservation Objectives;
- Favourable conservation status; and
- Condition of features.

3.2.1. Ensor's Pool SAC

Ensor's Pool was formed from an abandoned clay pit around fifty years ago. It was notified as a SSSI in 1995, designated a Local Nature Reserve in 1997 and designated a SAC in April 2005. It is located on the south-west fringe of Nuneaton's urban area (grid reference SP348903) and covers an area of approximately 3.8ha. It comprises an elongated (220m by 50m) isolated water body with an average depth of 8m. The pool is lined by an impervious layer of clay and is therefore it is assumed that it is reliant on rainwater as the predominant main supply of water. The Environment Agency has undertaken work to ascertain how the pool is fed and this has still not been quantified and remains an unknown factor.

Ensor's Pool is designated a European Site as it provides the habitat to one of the largest populations of healthy white-clawed crayfish (*Austropotamobius pallipes*) in England. The white-clawed crayfish flourished in both Britain and Europe until the commercial introduction of the signal crayfish (*Pacifastacus leniusculus*) from America in the 1970s. As well as preying on its smaller cousin, the signal crayfish carries a fungal disease to which the white-clawed crayfish has no immunity. Unfortunately, the signal crayfish and other non-native crayfish have since escaped the confines of the fisheries and entered the river systems of Britain and Europe, causing the dramatic decline of white-clawed crayfish. The isolation of Ensor's Pool from rivers creates a refuge for the white-clawed crayfish to flourish and that is why it is of both national and European importance.

In November 2014, Natural England reported that '*two recent surveys of Ensor's Pool in Warwickshire, noted for its populations of native white-clawed crayfish, have found no sign of the aquatic invertebrates*' (Natural England 2014a, press release 08.11.14). There is now a Natural England Site Improvement Plan (SIP) for Ensor's Pool where a key action is to '*further investigate the cause of the apparent collapse of the white-clawed crayfish population*' (See Table 4, Natural England 2014b). Given this finding, Ecology Services at WCC contacted Natural England for an official view on how Ensor's Pool should be considered for the purposes of this HRA. An official response was provided in a letter dated 03.07.15 provided in Appendix 2, Section 2.1.1 stated '*Natural England confirms there is no change to the SSSI/SAC designation. We advise that Habitats Regulations Assessment (HRA) of plans and projects with the potential to affect the site should therefore be carried out on a 'business as usual' basis.*' The letter goes on to comment that '*We continue to work with the Nuneaton and Bedworth Borough Council and the Environment Agency in order to decide what actions can be taken to address the loss of white-clawed crayfish population at Ensor's Pool*'. The most recent letter also makes reference to earlier correspondence (dated 14.01.15) between Natural England and Warwickshire County Council in relation to the HRA of the Local Flood Risk Management Strategy. For completeness, this letter is also provided in Section 2.1.1 of Appendix 2.

3.2.2. Bredon Hill SAC

The violet click beetle (*Limoniscus violaceus*) was recorded at Bredon Hill in 1989, although there is a 1939 record from 'Tewkesbury', which may refer to Bredon Hill. It has been found in each of several

years since. It is a very important site for fauna associated with decaying timber on ancient trees, including many Red Data Book and Nationally Scarce invertebrate species. The violet click beetle is primarily associated with ancient trees, as it develops in undisturbed wood-mould at the base of central cavities in these trees. At Windsor Forest it seems to develop exclusively in beech (*Fagus sylvatica*) but at Bredon Hill and Dixton Wood, ash (*Fraxinus excelsior)* appears to be the main species used. It is probable that a large population of ancient trees is necessary for a site to support this species.

3.2.3. Cannock Extension Canal SAC

Cannock Extension Canal in central England is an example of anthropogenic, lowland habitat supporting floating water-plantain (*Luronium natans*) at the eastern limit of the plant's natural distribution in England. A very large population of the species occurs in the canal, which has a diverse aquatic flora and rich dragonfly fauna, indicative of good water quality. The low volume of boat traffic on this terminal branch of the Wyrley and Essington Canal has allowed open-water plants, including floating water-plantain to flourish, while depressing the growth of emergents.

Floating water-plantain occurs in a range of freshwater situations, including nutrient-poor lakes in the uplands (mainly referable to 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*) and slowly-flowing lowland rivers, pools, ditches and canals that are moderately nutrient-rich. It occurs as two forms: in shallow water with floating oval leaves, and in deep water with submerged rosettes of narrow leaves. The plant thrives best in open situations with a moderate degree of disturbance, where the growth of emergent vegetation is held in check. Populations fluctuate greatly in size, often increasing when water levels drop to expose the bottom of the water body and from year to year. At many sites records of floating water plantain have been infrequent, suggesting that only small populations occur, in some cases possibly as transitory colonists of the habitat. Populations tend to be more stable at natural sites than artificial ones, but approximately half of recent (post-1980) records are from canals and similar artificial habitats. Its habitat in rivers has been greatly reduced by channel straightening, dredging and pollution, especially in lowland situations.

3.2.4. Lyppard Grange Ponds SAC

This site, on the outskirts of Worcester, is set amongst a housing development on former pastoral farmland. The ponds are associated with good-quality terrestrial habitats, and are a remnant of a formerly more widespread newt habitat when large numbers of ponds were maintained for agricultural purposes.

The great crested newt (*Triturus cristatus*) is the largest native British newt, reaching up to around 17 cm length. It has a granular skin texture (caused by glands which contain toxins making it unpalatable to predators), and in the terrestrial phase is dark grey, brown or black over most of the body, with a bright yellow/orange and black belly pattern. Adult males have jagged crests running along the body and tail. Newts require aquatic habitats for breeding. Eggs are laid singly on pond vegetation in spring, and larvae develop over summer to emerge in August to October, normally taking two to four years to reach maturity. Juveniles spend most time on land, and all terrestrial phases may range a considerable distance from breeding sites.

Breeding sites are mainly medium-sized ponds, though ditches and other water body types may also be used less frequently. Ponds with ample aquatic vegetation (which is used for egg-laying) seem to be favoured. Great crested newts do not require very high water quality, but are normally found in ponds with a circum-neutral pH. Broad habitat type varies greatly, the most frequent being pastoral and arable farmland, woodland, scrub, and grassland. There are also populations in coastal dunes

and shingle structures. Great crested newts can be found in rural, urban and post-industrial settings, with populations less able to thrive where there are high degrees of fragmentation. The connectivity of the landscape is important, since great crested newts often occur in metapopulations that encompass a cluster of several or many ponds. This helps ensure the survival of populations even if sub-populations are affected by, for example, pond desiccation or fish introductions. Climate may influence the range edge at the north of its distribution in Scotland, but other ecological or landscape factors such as pond density are probably more important in determining distribution across the main part of its British range.

3.2.5. River Mease SAC

The River Mease is a small tributary of the River Trent. It is a relatively unmodified lowland river providing conditions for populations of spined loach (*Cobitis taenia*), bullhead (*Cottus gobio*), white-clawed crayfish and otter (*Lutra lutra*). It has a retained a reasonable degree of channel diversity compared to other similar rivers containing spined loach populations. It has extensive beds of submerged plants along much of its length which, together with its relatively sandy sediments (as opposed to cohesive mud) provide good habitat opportunities for the species.

The spined loach is a small bottom-living fish that has a restricted microhabitat associated with a specialised feeding mechanism. They use a complex branchial apparatus to filter-feed in fine but well-oxygenated sediments. Optimal habitat comprises a patchy cover of submerged (and possibly emergent) macrophytes, which are important for spawning, and a sandy (also silty) substrate, into which juvenile fish tend to bury themselves.

The River Mease is an example of bullhead populations in the rivers of central England. Bed sediments are generally not as coarse as other sites selected for the species, reflecting the nature of many rivers in this geographical area, but are suitable in patches due to the river's retained sinuosity. The patchy cover from submerged macrophytes is also important for the species. The bullhead is a small bottom-living fish that inhabits a variety of rivers, streams and stony lakes. It appears to favour fast-flowing, clear shallow water with a hard substrate (gravel/cobble/pebble) and is frequently found in the headwaters of upland streams. However, it also occurs in lowland situations on softer substrates so long as the water is well-oxygenated and there is sufficient cover. It is not found in badly polluted rivers.

As well as its importance for species, the River Mease has also been selected as a SAC on the presence of the qualifying habitat: water courses of plain to montane levels with the habitat community *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (rivers with floating vegetation often dominated by water-crowfoot).

3.3. Key Information on European Sites for the HRA.

Table 3 below provides the latest information that is available via Natural England's website (as of July 2015) on the current Conservation Objectives, favourable conservation status and condition of features. Appendix 2 also provides consultation responses received from Natural England to date. The key vulnerability of each SAC have been taken directly from the citation for the SAC. The relevant '*Operations Likely to Damage the Special Interest of the Site*' (OLDSIS) considered relevant to the Warwickshire Minerals Plan are listed in Table 3, with a full explanation from the SSSI citation in Appendix 4. Table 4 also highlights the current issues and threats to Ensor's Pool SAC and the River Mease SAC as per the latest Natural England Site Improvement Plans (Natural England 2014b, 2014c).

In addition to the current Conservation Objectives published by Natural England on their website, Ecology Services have also obtained the previous more detailed Conservation Objectives for Ensor's Pool SAC (dated 2008) and the River Mease SAC (dated 2012) , which are also considered as part of this initial screening in line with recent HRA case law[2]. A summary of these more detailed Conservation Objectives and Targets are provided in Appendix 3 (Natural England 2008, 2012).

[2] RSPB v Secretary of State for the Environment Food and Rural Affairs, BAE Systems (Operations) Ltd and Natural England, 18th March 2015, [2015] EWHC Civ 227, referred to as the *Ribble* Case.

Name, site reference and location	Designation status, area and date of designation	Qualifying features	Conservation objectives published by Natural England	General site character	Conservation status	Condition assessment	Key vulnerability / Operations Likely to Damage the Special Interest of the Site (OLDSIS) (see Appendix 4) potentially relevant to the Minerals Plan
Ensor's Pool, **Warwickshire** **Grid reference: SP348903** **EU code: UK0012646** **Further information provided by Natural England in a letter dated 03.07.15 & 14.01.15 (Appendix 2, Section 2.1.1)**	SAC (Ensor's Pool SSSI) 3.80 ha 01.04.05	S1092: White-clawed crayfish *Austropotamobius pallipes*	30th June 2014 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 the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of	Inland water bodies (standing water, running water) (70%); Humid grassland. Mesophile grassland (30%)	In 2012 the population of white-clawed crayfish were found to be favourable at the site level as the population at the site '*remains at a reasonably high abundance*' For current status see Appendix 2	2012 Condition Assessment of the single unit of the SSSI is described as favourable with '*no identified Condition Threat*'. For current status see Appendix 2	Need to protect the sites water quality from direct or diffuse pollution. Avoid changing the amount of water in the pool (by abstracting water from inflowing streams or raising the water level). Avoid increasing the sediment Avoid introduction of non-native species especially non-native crayfish species. Avoid control or removal of natural

			qualifying species within the site. Summary of Conservation Objectives from 2008 are provided in Appendix 3.				aquatic vegetation Avoid intentional or accidental introduction of species such as bottom feeding coarse fish **OLDSIS: 7, 9, 12, 13b, 13c. 14, 15, 20, 21, 22 & 23.**
Bredon Hill, **Worcestershire** **Grid reference: SO965406** **EU Code: UK0012587**	SAC (component of Bredon Hill SSSI) 359.86 ha 01.04.05	S1079: Violet click beetle *Limoniscus violaceus*	30th June 2014 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 the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and,	General site character: Heath. Scrub. Maquis and garrigue. Phygrana (10%); Dry grassland. Steppes (10%); Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas) (80%)	95.20% considered to Favourable and 4.80% Unfavourable recovering (14.07.15)	Site Assessed 23.03.15 Of the 17 SSSI units that make up this SAC, 16 are considered to be 'favourable' 1 'unfavourable recovering' 15 of the SSSI units were considered to have a 'high' Condition Threat Risk with the remaining 2 having '*no*	Main threats are lack of replacement generation of trees for the current ancient trees over much of the hill as many of the younger trees have been removed to increase stock grazing areas, the overall number of ancient trees suitable for the violet click beetle is relatively small. Management agreements are being used to preserve existing tree stocks and to provide replacement planting

			• The distribution of qualifying species within the site.			*identified condition threat*'	**OLDSIS:** None selected as site scoped out of further assessment.
Cannock Extension Canal**, Staffordshire, West Midlands** **Grid reference: SK020058** **EU code: UK0012672**	SAC (Cannock Extension Canal SSSI) 5.47 ha 01.04.05	S1831: Floating water-plantain *Luronium natans*	30th June 2014 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 the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	General site character: Inland water bodies (standing water, running water) (75%); Humid grassland. Mesophile grassland (10%); Broad-leaved deciduous woodland (4.9%); Other land (including towns, villages, roads, waste places, mines, industrial sites) (10.1%)	2010: 41.10% of the site is considered to be '*favourable*' and 58.90% considered to be '*unfavourable recovering*'	2010 Condition assessment of 2 SSSI units One is considered to be '*unfavourable - recovering*' and the second '*considered to be 'favourable*' Condition threat risk is considered to be high for the entire site.	Appropriate management to ensure a careful balance of boat traffic in the canal is key to the population of floating water-plantain. Discharges of surface water run-off (principally from roads) can lead to some reduction in water quality **OLDSIS**: None selected as site scoped out of further assessment.
Lyppard Grange Ponds**, Worcestershire**	SAC (Lyppard Grange Ponds SSSI)	S1166: Great crested newt *Triturus cristatus*	30th June 2014 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that	General site character: 2 ponds in area of open space	2011 92.03% considered to be in favourable	2011 condition assessment of two units of the	Avoid recreational pressure and introduction of fish

Grid reference: SO879556 **EU code: UK0030198**	1.09 ha 01.04.05		the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	surrounded by residential development (formerly located in the grounds of Lyppard Grange Farm) Inland water bodies (standing water, running water) (8%); Heath. Scrub. Maquis and garrigue. Phygrana (22%); Improved grassland (70%)	condition but 7.97% in unfavourable – recovering condition	component SSSI Unit 1 comprising ponds deemed unfavourable – recovering and Unit 2 comprising parkland– deemed favourable The unfavourable condition assessment for unit 1 was due to failing of suitable egg laying substrate, but a remedy for this has now been agreed. Both units considered to have '*no identified condition threat*'.	Need to ensure continued appropriate pond management and that of surrounding terrestrial habitats is maintained. Avoid new barriers to newt movements between breeding ponds. Avoid use of inappropriate pesticides in vicinity of ponds supporting great crested newts. **OLDSIS:** None selected as site scoped out of further assessment.

River Mease, **Derbyshire, Leicestershire, Staffordshire** **Grid reference: SK260114** **EU code: UK0030258**	SAC (River Mease SSSI) 21.86 ha 01.04.05	H3260: Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation S1092: White-clawed crayfish *Austropotamobius pallipes* S1149: Spined loach *Cobitis taenia* S1163: Bullhead *Cottus gobio* S1355: Otter *Lutra lutra*	30th June 2014 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 • 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.	General site character: Inland water bodies (standing water, running water) (100%)	In 2010 the whole site was considered to be Unfavourable – No change because of drainage, inappropriate weirs dams and other structures, invasive freshwater species, siltation, water abstraction, freshwater pollution and pollution from agriculture / run off	2010 condition assessment all four SSSI units considered to be unfavourable – no change. Key reasons for unfavourable condition due to point source and diffuse phosphorus pollution, physical modifications via over dredging, weir, other impoundments. None native species, lack of river bank vegetation, lack of macrophyte species density and composition. Over	Need to avoid any deterioration in water quality and quantity. Diffuse pollution and excessive sedimentation are catchment-wide and have the potential to affect the site. Avoid introduction of non-native species Minimise pollution of river from point and diffuse sources, including discharges of domestic and industrial effluent, run-off from agriculture, forestry and urban land and accidental pollution from industry and agriculture. Avoid / reduce siltation of river bed Riparian areas and the wider catchment need to be managed sensitively to avoid

						abstraction lack of fresh water entering the river, density of designated fish species No assessment of the Condition Threat Undertaken	excessive run-off of soil particles and nutrients into the river. Effluents entering the river… should be treated to reduce the levels of phosphorus contained within them… **OLDSIS: key likely impact is no. 7, 14 & 20. Other possible but considered unlikely impacts given proximity of River Mease to Warwickshire (rather than the catchment) include: 9, 13a, 13b, 13c, 15 & 21.**

Table 3: Information required to undertake a HRA for each selected European Site as per Table 2

In addition to the above key vulnerabilities the currently available SIP for each of the two SAC's considered to have potential to be impacted by the Warwickshire Minerals Plan are provided in Table 4 below (Natural England 2014b,c). These outline the '*prioritised issues that are currently impacting or threatening the conditions of the features and the actions required to address them.*' (Natural England 2014b)

Ensor's Pool – Current Issues and Actions
Changes in species distributions - Historically Ensor's Pool was a stronghold for the native white-clawed crayfish with a population estimate of around 50,000 animals. Surveys in September and October 2014 found no crayfish in the pool. Currently the cause of this decline is unknown and further investigations are currently taking place. The spread of crayfish plague is a key reason for decline of other populations. **PROPOSED ACTIONS:** • Further investigate the cause of the apparent collapse of the white-clawed crayfish population. • Consider potential actions in response to the investigation.
River Mease – Current Issues
1) *Water pollution* – levels of phosphate contribute to eutrophication and increased algal growth and decline in abundance and / or diversity of characteristic plant and freshwater species and habitats of the SAC. Sewage Treatment Works account for much of the phosphorous and more diffuse septic tank discharges. In the headwaters of the river, high levels of ammonia are a concern and may be having an impact on juvenile recruitment of spined loach and bullhead. The source of these elevated levels of ammonia is not fully understood. **2) *Drainage* –** cumulatively drains, field under drainage and other discharges (e.g. sewage treatment works, and roads) within the catchment affect the naturalised flow pattern. Hence the river appears more 'flashy' with water levels rising and falling with increased rapidity. **3) *Inappropriate weirs, dams and other structures* –** these effect the condition of the SAC features and restrict their population size and distribution. Actions include the removal of such structures that prevent fish movement whilst ensuring the white-clawed crayfish population remains protected. **4) *Invasive species* –** particularly Himalayan balsam (*Impatiens glandulifera*) and Japanese knotweed (*Fallopia japonica*). American signal crayfish have recently been found in the lower reaches of the river. Signal crayfish outcompete native species for available food and habitat and carry crayfish plague which our native crayfish has no resistance to**.** **5) *Siltation* –** High levels of siltation smother gravel beds which are the required spawning habitat of bullhead and can also cover areas of fine sand which are used as spawning habitat by spined loach. **6) *Water abstraction* –** this changes the naturalised flow pattern from low to high flows and all flow ranges are importance for different life stage of the SAC species. There are regulated agricultural related abstractions along the river and a permitted transfer of ground water to the Ashby Canal. The 11 sewage treatment works in the catchment provide a net surplus of water to the system overall. The water balance of the catchment and how this affects the flow pattern and ecology needs to be further understood**.**

Table 4: Current issues and threats to Ensor's Pool and the River Mease SAC as per Natural England's latest SIPs (Natural England 2014b,c)

3.4. Screening of SACs.

3.4.1. Introduction to the Warwickshire Minerals Plan

Section 2.2 of the Warwickshire Minerals Plan makes reference to the Minerals Planning Practice Guidance where mineral planning authorities such as WCC '*should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):*

1. ***Designated Specific Sites** – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with minerals extraction;*
2. ***Designated Preferred Areas** – these are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and*
3. ***Designated Areas of Search** – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is potential shortfall in supply*' (WCC 2015a).

As stated in Section 5 of the Warwickshire Minerals Plan…'*the main issue for this plan to address is the shortfall in sand and gravel. Without adequate sand and gravel there will not be enough aggregate to serve the construction industry in the County and sub-region. The current land bank is only 7.2 years, however this needs to be maintained throughout the plan period*' (WCC 2015a).

The Minerals Plan comprises three key parts:

- Section 7: **A Spatial Strategy and Preferred Site Options**. This section makes reference to the 'Revised Spatial Options consultation in 2009' that highlighted a total of 30 sites that could be suitable to be developed for their respective minerals resource. From these sites a total of 9 'preferred' mineral sites have now been identified as likely to come forward in the next 15 years. These 9 Preferred Sites relate only to the extraction of 'aggregates' (in this case sand and gravel) and are illustrated in Figure 6. The remaining 21 sites are considered to be 'Rejected Sites' (as per the '*Site Assessment Methodology for allocating sand and gravel sites 2015*' (WCC 2015b). These 21 Rejected Sites are provided in Figure 7.
- Section 8: **Minerals Core Strategy Policies**. This section outlines policies against which any planning application for mineral extraction or the processing of secondary aggregates will be tested in the plan period. This allows planning applications to be put forward for proposed sites anywhere where a resource is present in the County outside of the 9 Preferred and 21 Rejected Sites outlined in Section 7 of the Warwickshire Minerals Plan. These policies will be used to test all planning applications for minerals throughout the 15 year plan period (including the 9 Preferred Sites as they are put forward).
- Section 9: **Development Management Policies**. This final section provides policies to ensure the development of the minerals resource in Warwickshire is sustainable and adequate measures are put in place to allow the monitoring of the implementation of the Warwickshire Minerals Plan. All planning applications for mineral extraction or processing of secondary aggregates will need to comply with these policies in addition to national and local guidance.

A 15km buffer around Warwickshire has been agreed as an appropriate distance by Natural England for the consideration of potential impacts to European Sites by the Warwickshire Minerals Plan (see correspondence dated 10.07.15 in Appendix 2, see Section 2.1.).

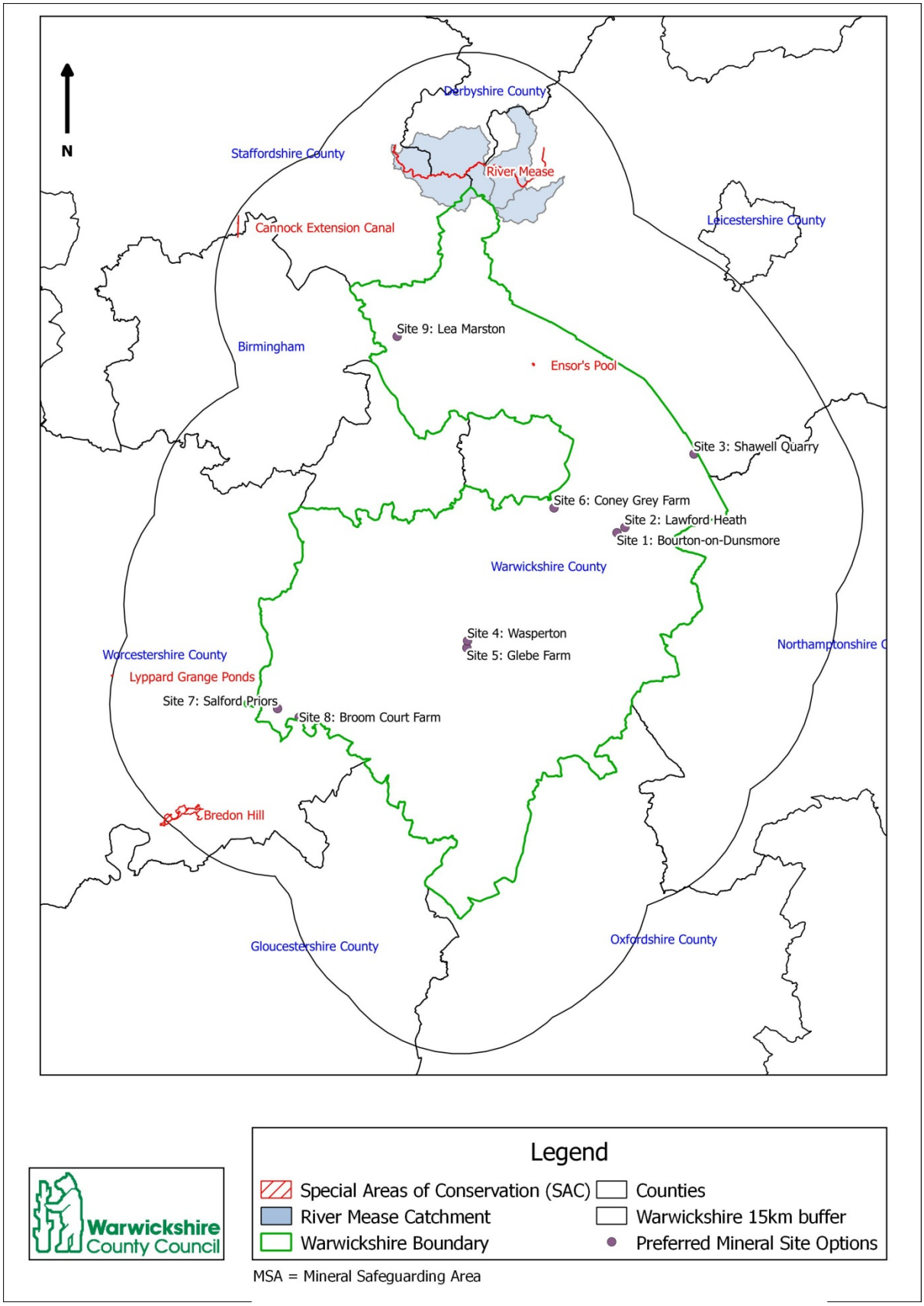

Figure 6: Location of the 9 Preferred Mineral Sites

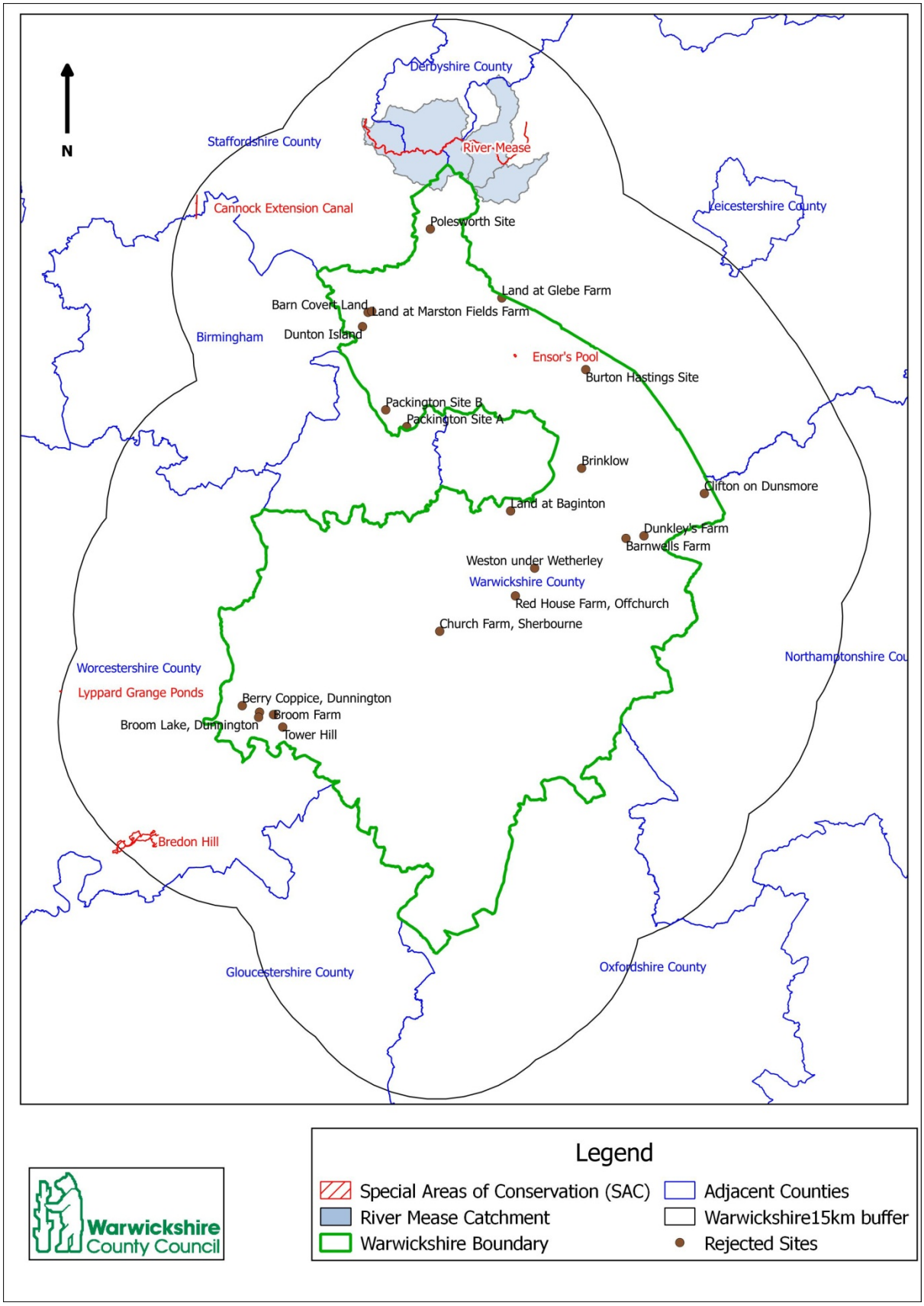

Figure 7: Location of the 21 Rejected Sites

3.4.2. Scoping of SACs with potential to be impacted by the Warwickshire Minerals Plan

The SACs for consideration as part of this HRA have been further scoped and refined by an assessment exercise that has identified if there could be any causal connection or link between the different proposals and policies set out in the Warwickshire Minerals Plan and the qualifying features and key vulnerabilities of each SAC within Warwickshire or a 15km buffer (as described in Section 1.1, Table 3 & 4 and Appendix 3).

The results of this assessment are provided in Table 5 below. A QGIS project was created to help in this scoping process and enabled the creation of a number of maps that provide illustrative justification for the policies / sections of the plan that have been screened into the HRA at this initial stage (see Figures 8 to 10 in Section 3 and Figures 12 to 22 in Appendix 1).

The two sites that have been screened in for further consideration in this HRA are:

1) **Ensor's Pool**. This site is vulnerable to:
   - Direct or diffuse pollution that could impact the water quality of the pool (particularly increases in sediment that not only change the water quality but also have a direct physical effect on white-clawed crayfish);
   - Any change in water levels. Figure 12 in Appendix 1 shows that Ensor's Pool lies within the surface water flooding zone for both 30 year and 200 year event;.
   - Introduction of non-native species, particularly non-native crayfish species;
   - Introduction of bottom feeding coarse fish;
   - Removal or control of natural aquatic vegetation; and
   - Physical disturbance to Ensor's Pool that could impact: the crayfish bankside refuges, the amount of bankside and marginal vegetation around the pool; the appropriate percentage of submerged macrophytes; and appropriate diversity of substrates within the pool.

   Any proposed mineral development under the Warwickshire Minerals Plan that that could lead to any of the above impacts on Ensor's Pool SAC would be lead to the plan having a LSE on Ensor's Pool triggering the need for a full AA of the Warwickshire Minerals Plan to be undertaken (see Stage 2 on Figure 2). This primarily includes any direct or indirect pollution into the pool. In addition any hydrogeological impacts to the pool from development within 2-3km of Ensor's Pool should be considered as recommended by the Environment Agency (see letter dated 16.09.15, in Appendix 2, Section 2.2).

   River Mease. This site is vulnerable to:

   - Deterioration in water quality and quantity. Diffuse and direct pollution and excessive sedimentation / siltation are a current issue for the River Mease catchment. There is a particular need to reduce the levels of phosphorus (and at the headwaters of the Mease levels of ammonia) in the catchment;
   - Introduction of non-native species;
   - Abstraction, drainage and other discharges that affect the naturalised flow of the river; and
   - Inappropriate weirs and dams.

   There is potential that proposed development of minerals resources within the section of the River Mease catchment within the north of Warwickshire (see Figure 5) could impact the River Mease SAC. Impacts include: pollution (especially from increased nutrient levels,

particularly phosphorus), sedimentation and the introduction of non-native species. Figure 13 in Appendix 1 illustrates the location of the River Mease catchment area within Warwickshire. Figures 14 and 15 also in Appendix 1 provide the original Natural England and Environment Agency Maps of the catchment area of the River Mease.

All other European Sites in Table 3 have been screened out as it has been concluded at this stage that the Warwickshire Minerals Plan will not impact these sites. Justification is provided in Table 5 and this decision has been confirmed by correspondence from the Environment Agency (see Appendix 2, Section 2.2).

SAC	9 Preferred Site Options	21 Rejected Site Options	Minerals Core Strategy Policies	Development Management Strategy Policies	Comment on Potential Impacts
Ensor's Pool **SCREENED IN**	*Screened out*: the pool does not lie in close proximity to any of the 9 Preferred Sites (see Figure 6) and have not been identified by the Environment Agency as being hydrologically connected to Ensor's Pool SAC (see Appendix 2, Section 2.2).	*Screened out*: the pool is not close to any of the 21 other Rejected Sites listed (see Figure 7). The Environment Agency have identified Burton Hastings as being approximately 7km east of Ensor's Pool and in close proximity to the headwaters of the River Anker. However the EA consider that the River Anker does not run closely enough to Ensor's Pool to have an effect on it and furthermore the Groundwater Team at the EA have reviewed the potential for hydrogeological linkages between the quarry option and the pool and have found that '*there is no potential for impact to Ensor's Pool*' due to the '*underlying geology being completely different in the two locations*'. (Appendix 2 and Section 2.2).	***Screened in*: there is some potential for impacts to Ensor's Pool by potential future applications for minerals sites outside of the 30 site options in Warwickshire.**	*Screened out*: All of these policies have been screened out during this initial screening exercise HRA (see Table 9).	**The site lies within an area containing the natural resources of Building Stone, Shallow and Deep Coal. It is also close to Brick Clay, Crushed Rock and several existing Aggregate Sites.** **There is potential for the SAC to be impacted by policies MCS 1, MCS 3, MCS 4, MCS 6 and MCS 7 should a new planning application for mineral extraction occur close to Ensor's Pool SAC.** **Theoretically planning applications near to Ensor's Pool could negatively impact its qualifying features. These impacts are most likely to occur through any changes in water level and increase in pollution. The Environment Agency have advised that any minerals planning applications within 2-3km of the boundary of Ensor's Pool should be subject to further**

					investigation in terms of any LSE to Ensor's Pool. (See Appendix 2, Section 2.2.1)
Bredon Hill **SCREENED OUT**	*Screened out*: the site is not near any of the 9 Preferred Site options (see Figure 6).	*Screened out*: the site is not near any of the 21 Rejected Sites listed (see Figure 7).	*Screened out*: the site is on a hill outside of Warwickshire and hence is not at risk of being impacted by the Warwickshire Minerals Plan in terms of off-site diffuse pollution.	*Screened out*: the site is on a hill outside of Warwickshire and hence is not at risk of being impacted by the Warwickshire Minerals Plan.	None. Screened out of this assessment.
Cannock Extension Canal **SCREENED OUT**	*Screened out*: the site is not near any of the 9 Preferred Site options (see Figure 6).	*Screened out*: the site is not near any of the 21 Rejected Sites listed (see Figure 7).	*Screened out*: the site is not connected by any water courses flowing out of Warwickshire.	*Screened out*: due to proximity to Warwickshire.	None. Screened out of this assessment.
Lyppard Grange Ponds **SCREENED OUT**	*Screened out*: the site is not near any of the 9 Preferred Site options (see Figure 6).	*Screened out*: the site is not near any of the 21 Rejected Sites listed (see Figure 7).	*Screened out*: site is considered too far to be impacted by the plan and there is no direct connection to water courses flowing from Warwickshire and this site, and there is a landform / ridge in between the nearest river and the site.	*Screened out*: due to the proximity to Warwickshire.	None. Screened out of the assessment.
River Mease **SCREENED IN**	*Screened out*: the site is not near any of the 9 Preferred Site options (see Figure 6) and have not been identified by the Environment Agency as being hydrologically	*Screened out*: the site is not near any of the 21 Rejected Sites listed (see Figure 7). The Environment Agency have considered the impact to the two sites closest to the River Mease Catchment that lie close to	***Screened in*: a small part of northern Warwickshire contains tributaries that flow directly into the River Mease to the north (see Figure 5).** **If any development as a result of the Warwickshire**	*Screened out*: All of these policies have been screened out during this initial screening exercise HRA (see Table 9).	**The River Mease catchment lies within an area supporting Sand and Gravel resource, Brick Clay, Building Stone & Deep Coal.** **There is potential for the SAC to be impacted by**

	connected to the River Mease SAC catchment (see Appendix 2, Section 2.2).	the River Anker: the **Polesworth** and **Burton Hastings** sites. Further investigations illustrate that the River Anker flows into the River Tame for approximately 17km, then joins the River Trent approximately 400m upstream of where the River Mease joins the River Trent in Staffordshire (see Figure 10). It is therefore considered that there is no LSE from any theoretical pollution to the River Anker or its catchment from any development under the Warwickshire Minerals Plan. This has been confirmed by the Environment Agency in a letter (dated 16.09.15, Appendix 2, Section 2.2.) and allows the thirty sites to be scoped out of this initial HRA.	**Minerals Plan caused pollution to the River Mease Catchment this could potentially impact the River Mease SAC.**		**planning applications under policies: MCS 1, MCS 2, MCS 4, MCS 6 & MCS 7.** **These impacts could include: diffuse or direct pollution and sedimentation (including nutrient run off). Phosphorous and ammonia are known to be a particular problem in the River Mease catchment.**

Table 5: Further scoping of European Sites to consider in the HRA of the Warwickshire Minerals Plan

A desk top exercise has been undertaken to determine the likely types of proposed mineral extraction or other development under the Warwickshire Minerals Plan that could lead to potential impacts on the qualifying features of Ensor's Pool SAC and the River Mease SAC.

Table 6 below highlights where the natural resource or existing aggregate sites overlap or lie close to either Ensor's Pool SAC or the catchment area of the River Mease SAC and the relevant policies that relate to this resource in the Warwickshire Minerals Plan. A series of Figures 8 to 9 below and Figure 16 to 23 in Appendix 1, provide further context for the location of these natural resources in Warwickshire.

Table 7 below highlights some of the generic impacts from mineral extraction that could potentially impact the two SACs via the identified functional pathways. Should a project level HRA for a new application be triggered (as per Section 5 and Figure 11), further assessment at the project level will be required when further details of the proposals are available.

Table 9 in Section 3.5.1, highlights which of the policies in the Warwickshire Minerals Plan have been scoped in or out with ecological justification.

Mineral Resource	Illustrative Figure	Overlap with the resource?		Minerals Policy that potentially be affected
		River Mease SAC catchment	**Ensor's Pool**	
9 Preferred Mineral Sites	Figure 6	No	No	
21 Other Rejected Sites	Figure 7	No	No	
Sand and Gravel Mineral Safeguarding Areas (MSA)	Figure 8, 9 & 16	Yes	No	MCS 2
Crushed Rock (MSA)	Figure 8,9 & 17	No	Not directly, but very close	MCS 3
Secondary Aggregates , Concrete Batching, Mortar & Roadstone Plants	Figure 18	No	Not directly but very close	MCS 4
Cement Raw Materials	Figure 19	No	No	MCS 5
Brick Clay MSA	Figure 8, 9 & 20	Yes	Not directly but very close	MCS 6
Building Stone (MSA)	Figure 8, 9 & 21	Yes	Yes	MCS7
Shallow Coal	Figure 8, 9 & 22	No	Yes	MCS8
Deep Coal MSA	Figure 8, 9 & 23	Yes	Yes	MCS9

Table 6: Proximity of Mineral Resources in Warwickshire to the River Mease SAC, Ensor's Pool SAC and the Preferred and Rejected Minerals Sites

Figure 8 and 9 below provide a summary of the proximity of the Mineral Safeguarding Areas (MSA) for natural mineral resources to both the River Mease Catchment (Figure 8) and Ensor's Pool SAC (Figure 9). A MSA is defined in the glossary of the Warwickshire Minerals Plan as follows '*These are clearly identified sites where mineral reserves are known, assessed and are very likely to be subject to a planning application for extraction in the near future. Warwickshire would expect to be consulted in the event of any planning application or proposed development within these sites and where*

sterilisation of the reserves would occur, permission should be refused unless overriding conditions exist or the mineral could be extracted prior to development' (WCC 2015a).

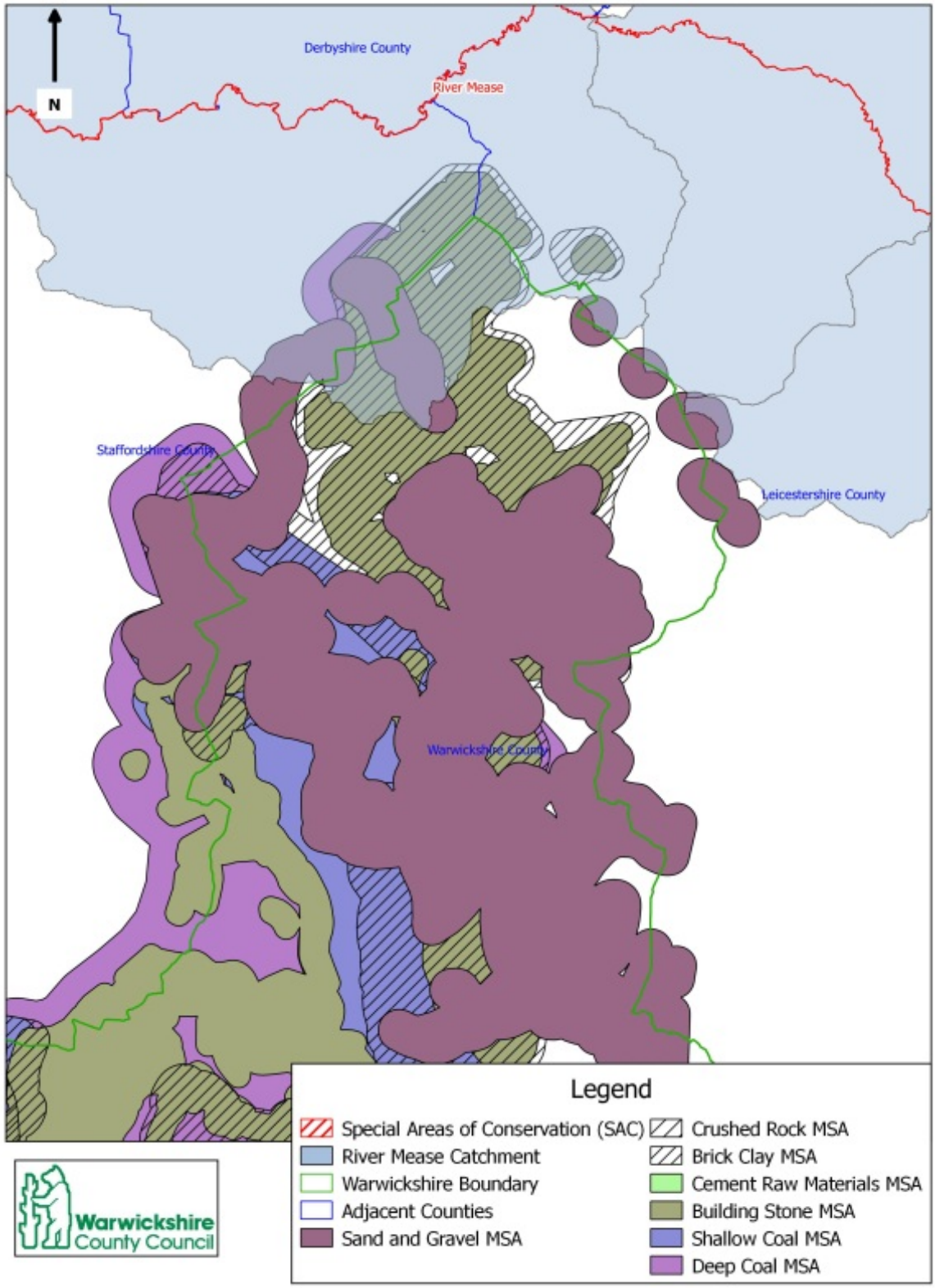

Figure 8: Proximity of MSAs to the River Mease SAC catchment area

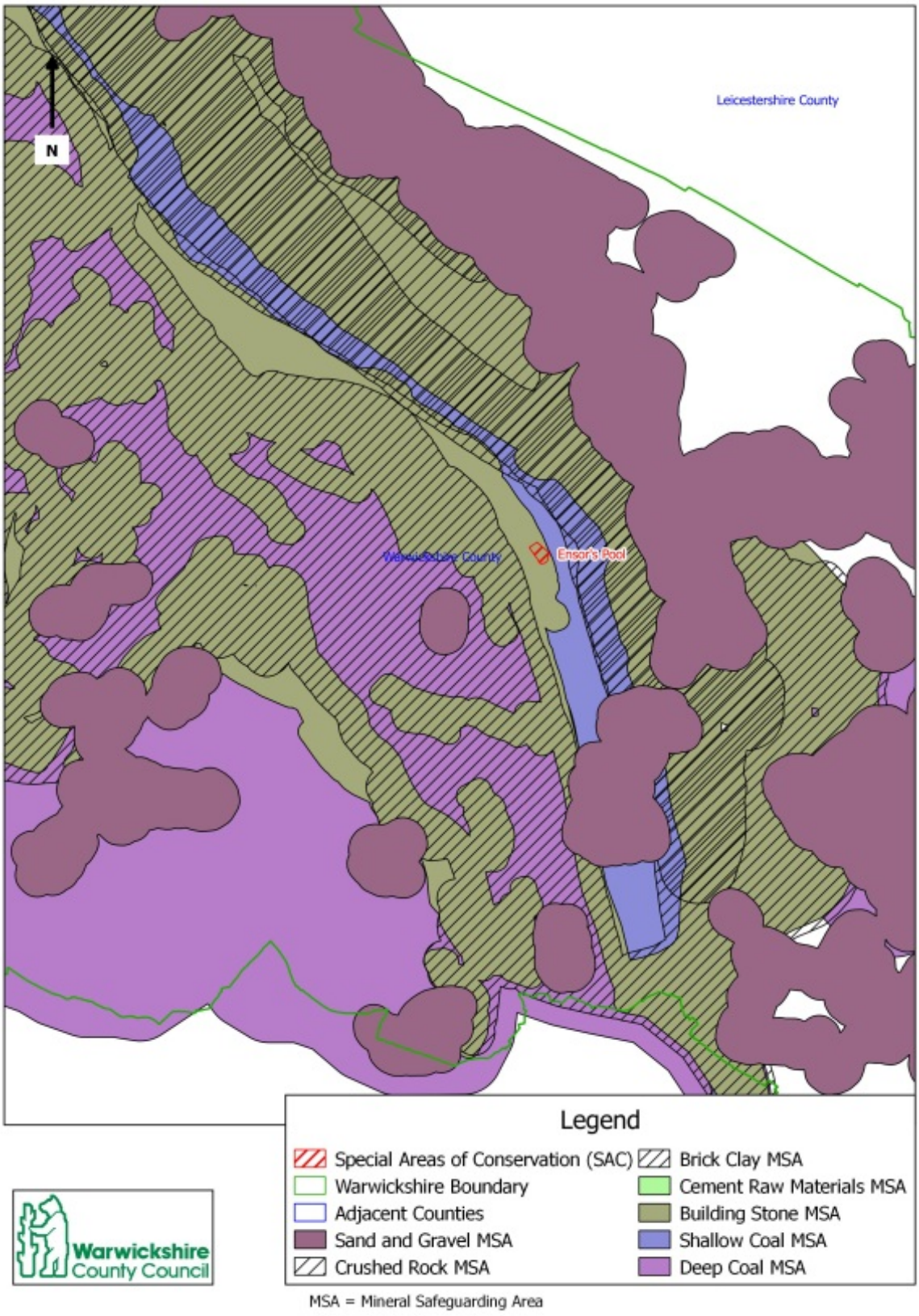

Figure 9: Proximity of MSAs to Ensor's Pool

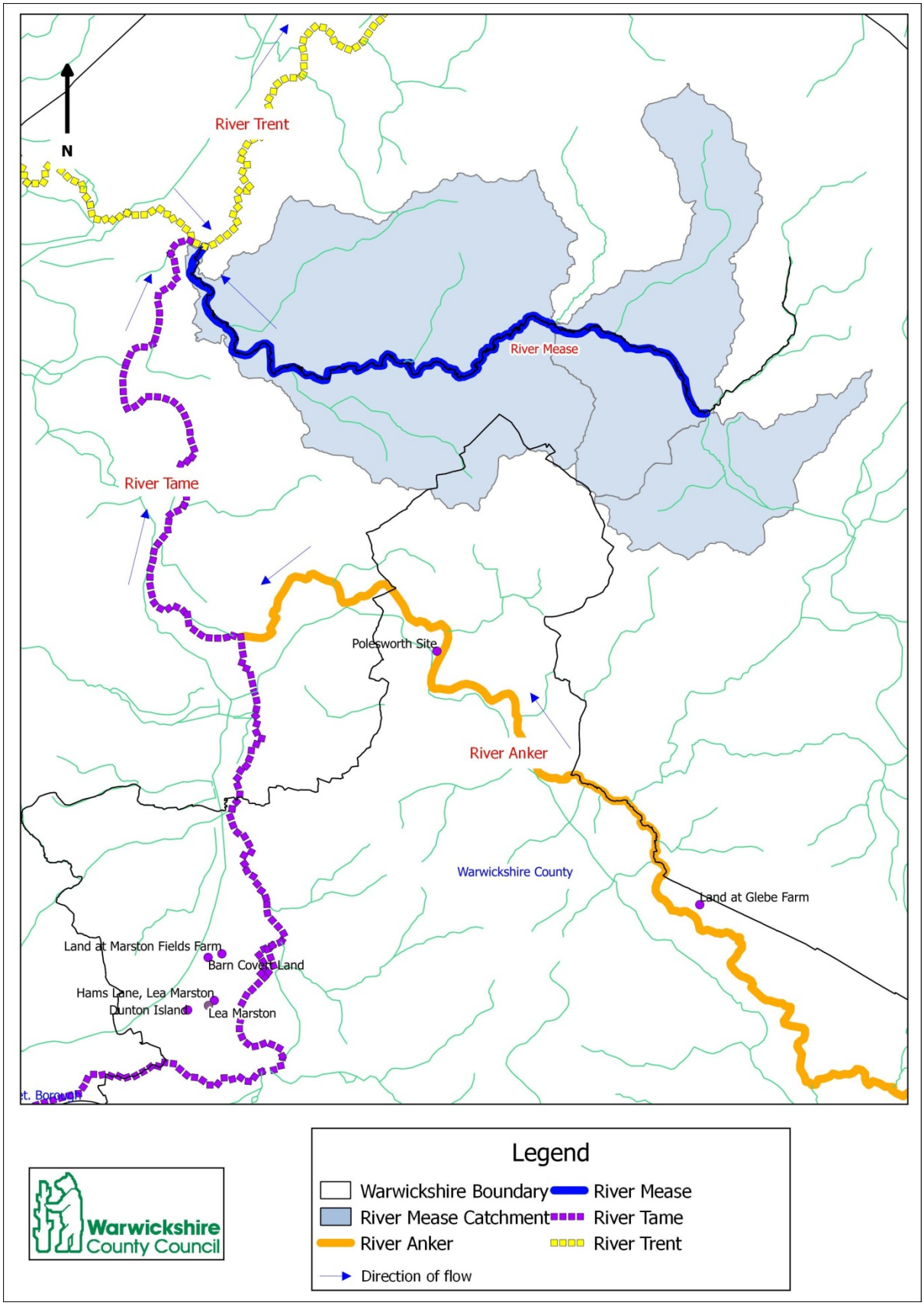

Figure 10: Proximity and flow of the River Tame, Anker, Mease and Trent in relation to the River Mease catchment

3.4.3. Potential Functional Pathways

Table 7 below highlights the key identified potential functional pathways between the likely generic impacts of development under the Warwickshire Minerals Plan as a result of the plan and potential LSE to Ensor's Pool SAC and the River Mease SAC based on their identified specific vulnerabilities and issues of concern relating to their Conservation Objectives (as per Tables 3 & 4 and in Appendix 3). This table draws from a similar approach used by Staffordshire County Council when undertaking their screening of allocated Sites of their new Minerals Local Plan in June 2015 (Staffordshire County Council 2015).

Potential Environmental Impact / Threat	Potential Functional Pathways	Potential to Impact Ensor's Pool?	Potential to Impact the River Mease?	Implications for Potential Planning Applications under the Plan
Water quality: Direct Pollution Pollutants could be potentially discharged from minerals sites either directly into an adjacent water course (as waste water run-off) or during surface water flooding events. These pollutants could increase the existing nutrient levels already present within a watercourse / catchment as well as increasing the level of sedimentation that could be detrimental to the SAC and its qualifying features. There is also a risk from minor fuel and oil leaks	If new minerals sites are adjacent or close to water courses that are connected to the River Mease SAC (see Figure 10) or within the Surface Water Flooding Zone for Ensor's Pool (see Figure 12 in Appendix 1).	Yes – surface water diffuse pollution to Ensor's Pool could occur if new sites are located close to the site and within the Surface Water Flooding Zone (see Figure 12). Changes in water quality and increased siltation would potentially impact the population of white-clawed crayfish for which the site is designated.	Yes – if a proposed new minerals site within the River Mease Catchment and a 2km buffer (see Figure 11) around it is subject to a decrease in water quality including an increase in nutrient level and sedimentation this could lead to an adverse impact on the River Mease SAC itself as they are hydrologically linked. An increase in phosphate and other nutrients will have a particularly negative impact on flora and fauna for which the SAC is designated (including *Ranunclion fluitantis* and *Callitro-Batrachion* vegetation, white-clawed crayfish, spined loach and bullhead). Increased siltation is known to be an issue in the River Mease	Any project within the Surface Water Flooding zone for Ensor's Pool or within the River Mease catchment and a 2km buffer will need to be considered for their potential LSE on European Sites at a project level HRA when further details have become available. Appropriate pollution control measures should be put in place and care to be taken to minimise waste water from minerals sites to be treated to remove silt and muddy discharges prior to discharge. This should also be considered for any new haulage roads or other infrastructure.

and spills during minerals operations, this could be direct or indirect through surface or ground water pollution.			SAC as it can smother gravel beds that are the required spawning habitat for bullhead. Siltation can adversely affect white-clawed crayfish and the spawning of the spined loach.	
Water quality: Indirect Pollution from Air Pollution Sedimentation impacts through air pollution via wet deposition (where pollutants are removed from the atmosphere by precipitation) or dry deposition (deposition of gases and aerosols directly to the Earth's surface[3].	The Air Pollution Information System (APIS) website[3] provides guidance on the main air pollutant releases associated with '*cement lime and minerals operations*' as Nitrogen oxides (NO_x), Particulates (PM) and Heavy Metals. APIS confirm that deposition of '*ammonia, nitrate and other forms of nitrogen from the atmosphere could be*' a significant cause of nitrogen pollution where there is limited agricultural activity such as upland areas, however this is not considered to be relevant to rural Warwickshire. APIS also confirms the acidification of rivers and streams impacts '*aquatic biota at all levels of the food chain*' including '*aquatic algae and macrophytes*	Yes – depending on proximity of any new minerals development. There is little information on the zone of influence of air pollutants. The WCC Waste Development Framework HRA Assessment suggested a 1km buffer around a SAC to trigger the need for a project level HRA. The 2008 HRA for the Staffordshire County Council Minerals Core Strategy suggests a 1km buffer from the Rive Mease Catchment. The Design Manual for Roads and Bridges (DMRB) considered a 2km buffer around a SAC to trigger the requirement of an HRA. Cornwall County Council cite 200m as a buffer for significant effects from the air quality impacts of increased traffic generated emissions	Yes – again depending on proximity to the River Mease catchment a suggested 2km buffer around the River Mease catchment is recommended within which a project level HRA assessment following the precautionary principle of a 2km buffer as stated in the DMRB (see Figure 11).	Any new minerals development within 2km of Ensor's Pool or the River Mease catchment should consider the implications of air quality impacts on a site by site project level basis.

[3] http://www.apis.ac.uk/ accessed September 2015

	to macroinvertebrate (e.g. white-clawed crayfish)*, fish and even water birds*'. Acidification can reduce species biodiversity and lead to '*Aquatic animals (invertebrates and fish)'* being *vulnerable to increased aluminium, hydrogen ion and heavy metal toxicity*'.	(Parsons Brinckerhoff 2012). A 2km buffer from the River Mease catchment has been selected to trigger a project level HRA based on the precautionary principle (see Figure 11).		
Water quantity / changes in water levels / drainage	River flows can be impacted by mineral extraction activities such as water abstraction (could reduce flow) and de-watering operations could increase water levels.	Any development / minerals activity within the Surface Water Flooding Zone around Ensor's Pool could cause an increase in the water level at Ensor's Pool. The Environment Agency's Groundwater Team have also highlighted that any development within 2-3km (see Figure 11) of Ensor's Pool could have a hydrogeological connection to Ensor's Pool, so would require further investigation on potential impacts to the SAC including water level changes.	Yes – any proposal within or close to the River Mease catchment that could impact the River Mease Any works that affect the flow of the river could impact the SAC.	Would need to consider this on a case by case project basis in liaison with experts at the Environment Agency in relation to hydrological linkage issues and consideration of the amount of abstraction or discharges to nearby water bodies. Project level HRAs within 3km of Ensor's Pool and 2km of and within the River Mease Catchment Area will be triggered (see Figure 11).
Invasive species	It is considered very unlikely that minerals development would lead to the direct introduction of non-native species into either Ensor's Pool or the River Mease SAC.	Yes – but considered unlikely.	Yes – but considered unlikely.	All proposed minerals sites should instigate appropriate biosecurity protocols during extraction and restoration to avoid any introduction of non-native species (e.g. signal

				crayfish) or non-native pathogens (e.g. crayfish plague) into any adjacent water courses or water bodies. This issue alone is considered unlikely to trigger a project level HRA unless specific risks are identified.
Direct Disturbance: e.g. Removal of natural aquatic vegetation	Considered unlikely to be caused by minerals development as no land take anticipated.	Yes theoretically but considered unlikely there would be any development that would necessity this type of direct impact.	No- not relevant as River Mease itself lies outside of Warwickshire so no direct impacts of this nature are anticipated as part of the Warwickshire Minerals Plan.	Considered very unlikely but if this is a likely impact a full project level HRA would be required (as per Figure 11).
In-Direct Disturbance: e.g. from light and noise	Noise impacts are considered unlikely given the proximity of the River Mease outside of Warwickshire and that Ensor's Pool already lies within an urban area.	Yes light could be disturbing to white-clawed crayfish present in the pool, but the likelihood of minerals development immediately adjacent to Ensor's Pool to have this impact is considered very unlikely.	Not considered relevant given the River Mease SAC lies outside of Warwickshire.	Considered very unlikely but if this is a likely impact a full project level HRA would be required.

Table 7: Key functional pathways for potential LSE from the Warwickshire Minerals Plan

3.5. Screening Assessment

The screening of the Warwickshire Minerals Plan has been undertaken following guidance and specific 'screening categories' provided in the HRA Handbook 2015, listed in Table 8 below.

The results of the screening for the entire Warwickshire Minerals Plan are provided in Table 9. Justification is provided as to why these have been screened in or out of any further assessment.

The specific wording of the policies / areas of the plan that have been screened in to this initial screening exercise of the Warwickshire Minerals Plan are provided in Table 10.

Category	Justification	Screened In or Screened Out?
	Administrative Text – introductory text about the plan	Screened out
	The plan makers 'vision' or 'general aspiration'	Screened out
	General Statements of overall goals	Screened out
	General Statements of broad objectives (implications are assessed under policy xx below)	Screened out
A	General Statement of policy / general aspiration	Screened out
B	Policy listing general criteria for testing the acceptability / sustainability of proposals	Screened out
C	Proposal referred to but not proposed by the plan	Screened out
D	Environmental protection / site safeguard policy	Screened out
E	Policies or proposals which steer change in such a way as to protect European sites from adverse effects	Screened out
F	Policy that cannot lead to development or other change	Screened out
G	Policy or proposal that could not have any conceivable effect on a site	Screened out
H	Policy or proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects)	Screened out
I	Policy or proposal with a likely significant effect on a site alone	Screened in
J	Policy or proposal with an effect on a site but not likely to be significant alone, so need to check for likely significant effects in combination	
K	Policy or proposal not likely to have a significant effect either alone or in combination	Screened out after in-combination test
L	Policy or proposal likely to have significant effect in combination	Screened in after the in-combination effect

Table 8: The HRAs Handbook 2015 screening categories

3.5.1. Screening of the Warwickshire Minerals Plan

Table 9 below provides the screening matrix for Warwickshire Minerals Plan Summer 2015.

Content of plan	Screening conclusion	Screening Category	Justification
Forward	Forward		Introductory text about the plan.
Introduction 1.1, 1.2, 1.3,1.4, 1.5	Screened out		Introductory text about the plan.
1.6	Screened out	A	General statement about other minerals, their potential extraction / processing to be fully covered under Section 8 'Mineral Core Strategy'.
1.7	Screened out		General statement about possible underground coal gasification and fracking to be fully covered under Section 8 'Mineral Core Strategy'.
2.1	Screened out	D	Section contains general information about the NPPF and also contains information about the importance of setting out relevant environmental criteria to ensure '*permitted operations do not have unacceptable adverse impacts on the natural and historic environment*'.
2.2, 2.3, 2.4	Screened out		Introductory text relating to Minerals Planning Guidance and other planning policy background / context for the plan.
3.1, 3.2, 3.3, 3.4, 3.5,	Screened out		Administrative text and background information on location, population, employment and training.
3.6	Screened out	E	Text providing the environmental context of the plan makes reference to the need for an HRA of the Warwickshire Minerals Plan '*to assess that its plans and projects, either individually or in combination, do not impact up to the conservation objectives of European designated sites*'. This proposal appears to steer the plan in a way to protect European Sites from adverse effects.
4	Screened out		Section provides background information on the mineral resource within Warwickshire, specific development policies and preferred sites are referred to and implications for the HRA are considered in relation to Sections 8 and 7 respectively.
5	Screened out	D	The section outlines the key issues for minerals in the county, which are all dealt with under specific policies within Section 8 of the report. In this section is some mention of the need to consider environmental impacts when a planning application is submitted for mineral development highlighting that '*if it was*

			considered that the adverse effects could not be mitigated it could be a reason for refusing the planning application'. Hence the category of D 'Environmental protection / site safe guard policy' has been allocated to this section.
6.1 & 6.2	Screened out	A / D	This section highlights the spatial vision of the land and is a general statement one policy states '*New quarries will have been located where they are environmentally acceptable through strong design and the imposition of planning conditions*'. This statement can be classified as an environmental protection policy.
6.3 (first paragraph)	Screened out		Introductory text.
6.3 (i)	Screened out	A	General statement of policy / general aspiration.
6.3 (ii)	Screened out	A	General statement of policy / general aspiration.
6.3 (iii)	Screened out	A	General statement of policy / general aspiration.
6.3 (iv)	Screened out	D	Environmental protection / site safeguard policy.
6.3 (v)	Screened out	D	Environmental protection / site safeguard policy.
6.3 (vi)	Screened out	A	General statement of policy / general aspiration.
6.3 (vii)	Screened out	A	General statement of policy / general aspiration.
6.3 (viii)	Screened out	A	General statement of policy / general aspiration.
6.3 (vxi)	Screened out	D	Environmental protection / site safeguard policy.
6.3 (x)	Screened out	D	Environmental protection / site safeguard policy.
7.1	Screened out	J	This section outlines details of the preferred site options for the Warwickshire Minerals Plan. Given none of these sites are located near to Ensor's Pool or the River Mease catchment, this section of the Warwickshire Minerals Plan has been screened out including Figures 1.5 to 1.7.
7.2	Screened out	J	This section outlines details of the Preferred Site options for the Warwickshire Minerals Plan. Given none of these sites are located near to Ensor's Pool or the River Mease catchment, this section of the Warwickshire Minerals Plan has been screened out Figures 6 and 7 illustrate the proximity of the 9 preferred sites and 21 Rejected Sites to Ensor's Pool and River Mease catchment respectively. Since none of the sites are close enough to a SAC to be considered to have a causal link, they

			have been screened out of this assessment.
7.3 Policy S1 – Mineral Sites to be Allocated	Screened out	**J**	Figure 6, illustrates that sites are not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.4 Site 1 – Bourton on Dunsmore	Screened out	**J**	Figure 6, illustrates that site 1 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.5 Site 2 – Lawford Heath	Screened out	**J**	Figure 6, illustrates that site 2 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.6 Site 3 – Shawell Quarry	Screened out	**J**	Figure 6, illustrates that site 3 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.7 Site 4 – Wasperton	Screened out	**J**	Figure 6, illustrates that site 4 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.8 Site 5 – Glebe Farm	Screened out	**J**	Figure 6, illustrates that site 5 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.9 Site 6 – Coney Grey Farm	Screened out	**J**	Figure 6, illustrates that site 6 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.10 Site 7 – Salford Priors	Screened out	**J**	Figure 6, illustrates that site 7 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.11 Site 8 - Broom Court Farm	Screened out	**J**	Figure 6, illustrates that site 8 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
7.11 Site 9 – Hams Lane	Screened out	**J**	Figure 6, illustrates that site 9 is not close enough to Ensor's Pool or the River Mease catchment to have a LSE on these sites.
8.0 Minerals Core Strategy Policies			
Policy MCS 1 Supply of Minerals and Materials & justification	**Screened in**	**I**	**This policy allows for the extraction of minerals throughout the county to ensure there is a sufficient supply and to maintain landbanks of permitted reserves. Nine initial sites have been selected as being Preferred Sites and these are more likely to be approved than others but will still need to be submitted as individual planning applications and comply with policies in the Warwickshire Minerals Plan and other relevant national policy and guidance and legislation such as the NPPF. Given the plan provides flexibility for potential extraction and processing of secondary aggregates anywhere in Warwickshire (i.e. outside of the 9 Preferred Sites and 21 Rejected Sites), there is a potential for a LSE for any planning application coming forward close to Ensor's Pool or within the River Mease**

			catchment area. Hence, subject to the strengthening of wording in Policy DM1, this policy is currently screened in.
Policy MCS 2 Sand and gravel	**Screened in**	**I**	**The policy theoretically allows for a planning application for sand and gravel extraction to be made anywhere where the resource is physically present. Figures 8, 9 & 16 illustrate that this resource lies within the River Mease catchment but not close to Ensor's Pool. Hence there is a potential LSE of this policy on the River Mease SAC, so it is screened in subject to the strengthening of wording in Policy DM 1.**
Policy MCS 3 Crushed rock	**Screened in**	**I**	**The policy theoretically allows for a planning application for crushed rock to be made anywhere where the resource is physically present. This resource is not present in the River Mease catchment, but does lie close to Ensor's Pool so there is potential for a LSE if an area of this resource is extracted close to Ensor's Pool (See Figures 8, 9 & 17).** **The justification text for Policy MCS3, highlights that one of the tests against which proposals for crushed rock minerals workings will be assessed includes '*any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated*' This wording does not rule out a LSE on a European Site so this policy is currently screened in to the HRA subject to the strengthening of wording to policy DM 1.**
Policy MCS 4 Secondary and recycled aggregates	**Screened in**	**I**	**The locations of existing secondary aggregate sites, concrete batching, mortar and coated roadstone plants are illustrated on Figure 18.** **The wording of the policy suggests that new recycled aggregates site could come forward at any location in Warwickshire the precise locations cannot be predicted at this time. Hence there is potential for a LSE to either the River Mease SAC or Ensor's Pool SAC so this policy is screened in, subject to the strengthening of wording to policy DM 1.**
Policy MCS 5 – Safeguarding Minerals and Minerals Infrastructure	Screen out	B	This policy outlines specific criteria for testing the acceptability of proposals in relation to ensuring mineral resources are safeguarded from sterilisation by incompatible non-mineral development. We have been made aware that this policy

			includes any development associated with cement raw materials, but given this resource is nowhere near either SAC (see Figure 19), this policy is screened out.
Policy MCS 6 Brick Clay	**Screened in**	**I**	**The brick clay resource within Warwickshire lies within the River Mease catchment and close to Ensor's Pool (see Figures 8, 9, 20), hence there is a risk that the extraction brick clay in these areas could have a LSE. It is also of note that the sites for proposed stock piling of any brick clay extracted are also unknown so could also potentially have a LSE, depending on location.** **This policy is screened in, subject to the strengthening of wording to policy DM 1.**
Policy MCS7 Building Stone	**Screened In**	**I**	**The building stone resource lies both within the River Mease SAC Catchment and Ensor's Pool SAC (see Figures 8, 9 & 21) hence development within or near these areas could theoretically have a LSE.** **This policy is screened in, subject to the strengthening of wording to policy DM 1.** **It is of note that neither Ensor's Pool or the River Mease catchment area lie within the Cotswold Area of Outstanding Natural Beauty (AONB) so this part of the policy is not relevant to this HRA.**
Policy MCS 8 Coal mining (opencast and deep mining)	Screened out	D / H	Ensor's Pool lies within both the deep and shallow coal resource in Warwickshire and a small area of the River Mease catchment area lies within the shallow coal resource (see Figures 8, 9, 22 & 23). Any proposed coal mining close to or within these areas could have a LSE. There is also a theoretical LSE from the disposal of colliery spoil and where materials would be stockpiled should coal mining be re-instated in Warwickshire in the life of this plan. It is however considered that the policy currently states that '*coal mining will only be approved where the proposal is demonstrated to be environmentally acceptable*'. Given that any LSE on a European Site would be not accord with the policy as it is currently stated, this policy is currently screened out. It is of note that strengthening the wording of Policy DM 1 would increase the protection.

Policy MCS 9 Conventional Hydrocarbons	Screened out	E	Policies or proposals which steer change in such a way as to protect European Sites from adverse effects. There is theoretically a risk of a LSE from this policy should any exploration, appraisal to produce oil and gas be undertaken close to or within Ensor's Pool or the River Mease catchment. However, the policy highlights that these proposals will be supported where they '*do not give rise to any unacceptable impacts on the environment*'. Furthermore the accompanying text states '*Developers should avoid developing proposals within influencing distance of sites designated as being internationally or nationally important for nature conservation*.' Given any LSE to a European Site could never been considered environmentally acceptable, this policy is screened out. It is of note that strengthening the wording of policy DM 1 would increase the protection.
Policy MCS10 Unconventional Hydrocarbons	Screened out	E	Policies or proposals which steer change in such a way as to protect European Sites form adverse effects. There is theoretically a risk to European Sites from this policy should any exploration, appraisal to produce oil and gas be undertaken close to or within Ensor's Pool or the River Mease catchment. However we note that the policy highlights that these proposals will be supported where they '*do not give rise to any unacceptable impacts on the environment*'. Furthermore, the accompanying text states '*Developers should avoid developing proposals within influencing distance of sites designated as being internationally or nationally important for nature conservation*.' Given any impact to a European Site would not be acceptable this policy is screened out. It is of note that strengthening the wording of policy DM 1 would increase the protection.
Policy MCS11 Underground coal gasification	Screened out	**E**	Policies or proposals which steer change in such a way as to protect European Sites from adverse effects. There is theoretically a risk to European Sites

			from this policy should proposals for underground coal gasification, the production of Syngas and the erection of plant to utilise the gas to produce energy and / or fuels and chemical feedstocks if put forward under this Warwickshire Minerals Plan close to or within Ensor's Pool or the River Mease catchment. However we note that the policy highlights that these proposals '*will be refused unless the proposal(s) is environmentally acceptable or can be made so by planning conditions or obligations*'. Furthermore, the accompanying text states '*Developers should avoid developing proposals within influencing distance of sites designated as being internationally or nationally important for nature conservation*.' This policy therefore is screened out. It is of note that strengthening the wording of Policy DM 1 would increase the protection.
9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7	Screened out		This section provides introductory text to put the development management policies and the planning application process in context
9.8 Policy DM1 – Protection and enhancement of the natural and built environment	Screened out	E	This policy provides wording to protect, conserve and where possible enhance the natural and built environment. The policy makes indirect reference to European Sites and highlights that '*the level of protection to be afforded to the asset will be commensurate with its designation and significance*.' Further detail on the European Sites present within Warwickshire are provided in the justifying text including the following: '*Where a proposal may have an adverse effect on the integrity of a site or sites designated as of international importance for nature conservation, planning permission will only be permitted where it is demonstrated that there are no suitable alternatives and there are imperative reasons of overriding public interest*'. This policy is screened out.
9.9 Policy DM2 – Managing Health, Economic and Amenity Impacts of	Screened out	D	Environmental protection / site safeguard policy

Mineral Development			
9.10 Policy DM3 – Sustainable Transportation	Screened out	B	Policy listing general criteria for testing the acceptability / sustainability of proposals. This policy relates to Sustainable Transportation and has been screened out of the assessment
9.11 Policy DM4 – Public Rights of Way and Recreational Highways	Screened out	H	Policy or proposal the (actual or theoretical) effects of which cannot undermine the Conservation Objectives (either alone or in combination with other aspects of this or other plans or projects) Any proposals for diversions to public rights of way are not considered to have impacts to the conservation objectives of either SAC. Ensor's Pool is already fully accessible to the public and the River Mease SAC lies outside of Warwickshire itself and instead lies within Staffordshire, Leicestershire and Derbyshire.
9.12 Policy DM 5 – Flood Risk and Water Quality	Screened out	D	Environmental protection / site safeguard policy
9.13 Policy DM 6 – Aviation Safeguarding	Screened out	G	Policy or proposal that could not have any conceivable effect on a site
9.14 Policy DM 7 – Reinstatement, reclamation, restoration and aftercare	Screened out	D	Environmental protection / site safeguard policy
9.15 Policy DM 8 – Mineral Safeguarding	Screened out	B	This policy outlines specific criteria for testing the acceptability of proposals in relation to non-mineral development ensuring mineral resources are safeguarded from sterilisation by incompatible non-mineral development. Hence this policy is screened out.
9.16 Policy DM9 'Whole Life' Approach to Mineral Development	Screened out	D	Environmental protection / site safeguard policy
10.1 & 10.2 Implementation and Monitoring	Screened out	B	Policy listing general criteria for testing the acceptability / sustainability of proposals with targets for each policy in the plan stated. This policy just highlights the implementation and monitoring policies for the entire plan. This section also includes maps with background

			information
11 Glossary	Screened out		Administrative text

Table 9: Screening matrix for the Warwickshire Minerals Plan

Following the screening exercise, Table 10 below provides the wording of the current policies within the Minerals Plan that have been screened in at this stage 1 of the HRA.

Section / policy reference	**Text of Policy / Section that has been screened in to this initial HRA**
MCS 1	The County Council will seek to maintain a supply of materials from alternative sources and will take account of this before considering the extraction of aggregate minerals in the County. The Council will seek to ensure that during the plan period there is a sufficient supply of minerals through Warwickshire's appropriate contribution to local and national needs. The Council will seek to maintain landbanks of permitted reserves for aggregate minerals and for clay. Where there is no identified shortfall in provision (when assessed against Government guidance) any planning application for mineral development will be treated on its merits and assessed against all other relevant Development Plan policies, taking into account the guidance of the National Planning Policy Framework and all other relevant material planning considerations.
MCS 2	The Council will seek to ensure that during the plan period there is a steady and adequate supply of sand and gravel, taking account of the Council's latest land bank figures, based on annual monitoring and the latest Local Aggregates Assessment (LAA). The County's requirement based on the LAA is 11.33 million tonnes over the 15 year plan period. The Council will seek to maintain a minimum seven year landbank for sand and gravel. Proposals for sand and gravel extraction within the sites identified on the Policies Map will be supported where the proposal accords with all other relevant development plan policies. Proposals for sand and gravel extraction outside the sites shown on the Policies Map will only be supported where the proposal: a) would provide significant operational, transport, environmental and restoration benefits from working in that location; and b) would accord with all other relevant development plan policies.
MCS 3	The Council will seek to ensure that during the plan period there is a steady and adequate supply of crushed rock, taking account of the Council's latest landbank figures, based on the latest published annual monitoring and the latest Local Aggregates Assessment (LAA). The Council will seek to maintain a minimum 10 year landbank for crushed rock. Proposals for the winning and working of crushed rock will be supported where: - the proposal would accord with all other relevant development plan policies; and

	- it is demonstrated that the proposal would provide significant operational, transport, environmental and restoration benefits from working in that location. Proposals for the working of limestone in the Cotswold AONB for crushed rock provision will be refused unless it can be clearly demonstrated that it is in the public interest and that there are very significant benefits arising from the proposal which would over-ride any potential adverse impacts from working in that location.
MCS 4	Proposals for the reception, processing, treatment and distribution of waste materials for the production of recycled and secondary aggregates will be supported where the proposal will promote the management of waste in accordance with the principles of the Waste Hierarchy and facilitate a reduction in the need for primary aggregates and will accord with all other relevant development plan policies.
MCS 5	Mineral resources of economic importance within the Mineral Safeguarding Areas shown on the Policies Map will be safeguarded from sterilisation by incompatible non -mineral development. Non-mineral development within the Mineral Safeguarding Areas shown on the Policies Map will have to demonstrate that the sterilisation of mineral resources of economic importance will not occur as a result of the development and that the development would not constrain or hinder future extraction in the vicinity. If this cannot be demonstrated, prior extraction will be sought where practicable. Prior extraction will be supported where: - it is practicable; - It can be carried out without any unacceptable adverse impacts; - It can be carried out within a reasonable timescale; and - There are proposals to restore the site should the development be delayed or not implemented. Existing permitted sites and facilities for the storage, handling and processing of minerals and recycled and secondary materials will be safeguarded from non -mineral development which could constrain or hinder their existing and potential use for these purposes.
MCS 6	The Council will seek to maintain a minimum of 25 years permitted reserves of brick clay to support capital investment required for new or existing plant for brick manufacturing and the maintenance and improvement of existing plant and equipment, particularly premium brick clays such as those from the Etruria Formation. Proposals for brick clay extraction will be encouraged where the proposal makes an appropriate contribution to local and national markets, releases minerals which will create products that facilitate good quality design and the proposal accords with all other relevant development plan policies. Proposals for the long term stockpiling of clays released through the extraction of other minerals or prior extraction will be supported unless the proposals; - are not practicable and environmentally feasible; - will lead to any unacceptable adverse impacts; and - Accord with all other relevant development plan policies.
MCS 7	The Council will support proposals for small scale extraction of building stone where the

	proposal encourages local distinctiveness, contributes to good quality design and provides for high quality restoration at the earliest opportunity and accords with all other relevant development plan policies. Proposals for building stone extraction in the Cotswolds AONB will only be approved where the proposal provides very significant benefits that outweigh any unacceptable adverse impacts of working in that AONB location.
MCS 8	Proposals for coal mining will only be approved where the proposal is demonstrated to be environmentally acceptable, or can be made so through planning conditions. Where this cannot be demonstrated, planning permission will only be granted where the proposal is demonstrated to provide national, local or community benefits that clearly outweigh the adverse impacts arising from the proposal and where it accords with all other relevant development plan policies. In particular, appropriate consideration will need to be given to the proposal's impacts in terms of: • contribution to delivering an indigenous source of energy and securing a diverse energy mix; • disposal of colliery spoil (deep mining); • minimising the nature and extent of surface subsidence (deep mining) • Arrangements for the extraction and stockpiling of other minerals (surface mining). For surface coal mining proposals the County Council will have regard to the desirability of the preservation of natural beauty, of the conservation of flora and fauna and geological or physiological features of special interest and of the protection of sites, buildings, structures and objects of architectural , historic or archaeological interest and the extent to which the coal operator has complied with the duty under Section 53 of the Coal Industry Act 1994 when preparing any planning application.

Table 10: Wording of policies screened in to the HRA

The wording of key policy that relates to nature conservation is provided below. Section 5 of this report provides recommended edits to this policy to enable the adequate protection of all European Sites / Natura 2000 sites in the implementation of the Warwickshire Minerals Plan.

Policy DM1 - Protection and enhancement of the natural and built environment

Mineral development should protect, conserve, and where possible enhance, the natural and built environment by ensuring that there are no unacceptable adverse impacts upon:

- **natural resources (including water, air and soil resources);**
- **biodiversity;**
- **geodiversity;**
- **archaeology;**
- **heritage and cultural assets and their settings;**
- **open space, sport, tourism and other recreational facilities and land**
- **the quality and character of the landscape;**
- **adjacent land uses or occupiers; and**

- **the distinctive character and setting of the County's settlements;**

And the development satisfies Green Belt policies.

Mineral development proposals should demonstrate that valued landscapes and sites, species, habitats and heritage assets (an indicative list of sites, species, habitats and heritage assets is contained in Table 9.1 and, where relevant, their settings) of international and national importance will be preserved or conserved and, where possible, enhanced. The level of protection to be afforded to the asset will be commensurate with its designation and significance.

Proposals should also maintain or, where possible, enhance biodiversity and recognised sites, species, habitats and heritage assets (an indicative list of sites, species, habitats and heritage assets is contained in Table 9.1) of sub-regional or local importance, as well as designated Local Green Spaces or open space, sports and recreational facilities and land identified in Local Development Documents as of specific importance. The level of protection to be afforded to such assets will be commensurate with the level of importance and contribution to wider ecological or geological/geomorphological networks.

Mineral development should be undertaken in close consultation with local communities in order to address any valid local concerns raised by the proposals.

If it is considered that the development is justified against the above criteria, proposals will only be permitted where the adverse impacts will be

i) Avoided; or

ii) Satisfactorily mitigated (where it is demonstrated that adverse impacts have been avoided as far as possible); or

iii) Adequately compensated or offset as a last resort where any adverse impacts cannot be avoided or satisfactorily mitigated.

Under the justification text of DM 1 in the current Warwickshire Minerals Plan a reference is made to Biodiversity Offsetting in Warwickshire and the sub-regional Green Infrastructure Strategy which refers to the '*Warwickshire, Coventry & Solihull Sub-Regional Green Infrastructure Strategy*' prepared by Warwickshire Museum and Natural Environment (undated).

4. In-combination Assessment

4.1. Scoping of Plans for Consideration

In order to determine the nature of any other plans and projects that could have an in-combination effect the statutory agencies Natural England and the Environment Agency were consulted on 24th June 2015 and 1st July 2015 respectively.

Natural England confirmed on 10.07.15 that '*other plans to be included should be any minerals & waste plans and transport & infrastructure plans in the surrounding local authorities that may impact Warwickshire*.'

The Environment Agency have confirmed in correspondence dated 16.09.15 that '*we are not aware of any plans or programmes that need to be considered as part of this assessment*'. Initial telephone consultation in July 2015, revealed the importance to reviewing the latest Local Aggregate Assessment 2015 (WCC 2015c).

Given the importance of ensuring only the relevant plans are considered, a scoping exercise has been undertaken to ensure a tightly focused and relevant In-combination Assessment for this HRA. Only plans associated with the River Mease catchment or counties / districts / borough immediately adjacent to Ensor's Pool are considered. Table 11 below provides justification as to why certain plans have been included or excluded from this In-combination Assessment.

Plan Title	**District / County**	**Scope in or out for each SAC**		**Justification**
		Ensor's Pool	**River Mease**	
Warwickshire Waste Core Strategy	Warwickshire	Scope In	Scope In	Relates to the County
Warwickshire Transport Plan	Warwickshire	Scope In	Scope In	Relates to the County
Nuneaton and Bedworth Borough Plan	Nuneaton and Bedworth	Scope In	Scope Out	Ensor's Pool lies within this district
North Warwickshire's Proposed Submission Core Strategy	North Warwickshire District Council	Scope In	Scope In	The River Mease catchment lies within this district
Leicestershire Minerals and Waste Cores Strategies	Leicestershire	Scope Out	Scope In	The River Mease catchment falls within this adjacent county
Leicestershire Local Transport Plan	Leicestershire	Scope Out	Scope In	The River Mease catchment falls within this adjacent county
North West Leicestershire District Council Local Plan	North West District	Scope Out	Scope In	The River Mease catchment falls within this adjacent district
Staffordshire and	Staffordshire	Scope Out	Scope In	The River Mease

Stoke-on-Trent Joint Waste Core Strategy 2010-2015				catchment falls within this adjacent county
Staffordshire Emerging Local Transport Plan	Staffordshire	Scope Out	Scope In	The River Mease catchment falls within this adjacent county
Lichfield District Council Local Plan	Lichfield District	Scope Out	Scope In	The River Mease catchment falls within this adjacent district
South Derbyshire District Council Local Plan	South Derbyshire District	Scope Out	Scope In	The River Mease catchment falls within this district
Hinckley and Bosworth Borough Local Plan	Hinckley and Bosworth Borough Local Plan	Scope Out	Scope Out	The boundary of this district lies to the north of the A5 that separates Nuneaton and Hinckley. The district likes approximately 5km to the east of Ensor's Pool and due to distance it has been scoped out of the in-combination assessment. The River Mease Catchment area does not lie within this district
Tamworth Local Plan	Tamworth	Scope Out	Scope Out	Not in the River Mease SAC catchment area
Local Aggregate Assessment Summer 2015	Warwickshire	Scope In	Scope In	As requested the Environment Agency.
Site Assessment Methodology for allocating sand and gravel sites 2015	Warwickshire	Scope In	Scope In	To be consistent with inclusion of the Local Aggregate Assessment
River Mease SAC Water Quality Management Plan	All counties that lie within the River Mease Catchment	Scope Out	Scope In	Considered to potentially be relevant to the plan
The River Mease Diffuse Water Pollution Plan	All counties that lie within the River Mease Catchment	Scope Out	Scope In	Considered to potentially be relevant to the plan

Table 11: Scoping of plans for the In-combination Assessment

4.2. Details of Plans Scoped In

4.2.1. Warwickshire Waste Core Strategy

The Warwickshire Waste Development Framework comprises two planning documents: the Waste Core Strategy that was adopted in July 2013 and the Waste Site Specific Allocations. The Warwickshire County Council website currently states that '*at the present time, it is not envisaged that site allocations for waste facilities are required*'. Prior to 2013 a number of consultations on preferred options and proposals were undertaken in 2005, 2006, 2008, 2011 and 2012.

The following HRA reports for the waste plan have been produced.

- Habitats Regulation Assessment – Screening Report for Minerals and Waste Development Frameworks dated 2008 (WCC 2008). This HRA undertaken in 2008 provided an initial screening assessment of both the Minerals Development Framework (MDF) and Waste Development Framework (WDF). The screening identified the mechanisms by which potential minerals and waste development could impact European Sites and confirmed that further assessment will be undertaken once site specifics are known for each development framework. The four key impacts to investigate are as follows:
    - Air quality
    - Water quality
    - Water supply and hydrology
    - Disturbance
    - Spread of invasive species

  The screening report also scoped out impacts to any European Sites other than Ensor's Pool and the River Mease SACs.

- Habitats Regulation Assessment – Scoping Report for the Waste Development Framework – Core Strategy (WCC undated). Figure 1 in this document provides an indication of the likely locations of new waste development in Warwickshire (Policy CS2 of the Waste Plan). None of these areas lie close to the section of the River Mease catchment that is present in Warwickshire. However there is potential for waste development close to Ensor's Pool SAC. The report concluded that '*As the Ensor's Pool SAC lies within the broad locations identified in Core Strategy policies CS2, potential development may be possible within relative proximity (i.e. 1km) of the site. However the likelihood of new waste development coming forward in these locations is highly unlikely given the choice of sites available, and the few mechanisms by with the SAC could be affected*.' Impacts through thermal treatment were considered to be very unlikely '*as the latest treatment capacity information indicates that there is sufficient waste treatment capacity with planning permission to negate the need for large scale thermal treatment*'. The HRA therefore concluded that '*any potential impacts from implementing the Waste Core Strategy are both highly unlikely and inconsequential*.' However following the precautionary principle the County Council included a policy '*that requires applicants to undertake a site specific HRA at the planning application stage in instances where Natura 2000 sites may be affected. In implementing this policy, planning permission will not be granted where the proposal will, either alone or in combination with other developments, have a significant adverse impact upon the integrity of such sites*'.

Currently no in-combination impacts with the Warwickshire Minerals Plan are anticipated.

4.2.2. Warwickshire Transport Plan

The third Warwickshire Transport Plan (LTP 3) was adopted on 1st April 2011. The plan covers the period 2011 to 2026 and provides the framework for how '*the transport network will be maintained and improved across Warwickshire over the next fifteen years*'.

An HRA of the plan was undertaken by Warwickshire County Council in 2010 (WCC 2010). The HRA concluded that '*If Warwickshire County Council adheres to the accompanying policies identified in Chapter 5 below plus follows Planning Policy Guidance, best practice guidelines and seeks advice and guidance from Natural England, other specialists and authorities in relation to air pollution impact modelling, then the Local Transport Plan should have no likely significant direct or indirect impacts on SACs*.'

The HRA concludes that '*This assessment therefore concludes that there are no significant impacts considered likely to trigger a progression to Phase 2, Appropriate Assessment.*'

Given the findings of the HRA of the Warwickshire Transport Plan, **it is not anticipated that this plan will have any in-combination impacts with the Warwickshire Minerals Plan**.

4.2.3. Nuneaton and Bedworth Borough Plan

The current adopted Nuneaton and Bedworth Borough Plan is dated 2006 and currently being revised via the preferred options public consultation (sent out in July and August 2013, see below). The current 2006 plan contains policy Env 17 that relates to Nature Conservation and states the following text '*Development not directly connected with or necessary to the management of a European site, a proposed European site or a RAMSAR site, and which may have a significant effect on a site (whether on its own or in combination with other proposals) will be subject to the most rigorous examination. Where an adverse impact on the integrity of a site cannot be ruled out development will not be permitted unless there is no alternative solution and there are imperative reasons of overriding public interest why the development should proceed*.' The plan goes on to provide a commitment that plan aims to ensure that '*the Borough's key nature conservation and geological assets are protected*' acknowledging that '*the most important biodiversity sites are internationally designated*' and include European Sites specifically mentioning Ensor's Pool SAC within the borough.

The preferred options for the Nuneaton and Bedworth Borough Plan were published for public consultation between July and August 2013. A shadow HRA was also submitted with the plan by Mott MacDonald on February 2013. Ensor's Pool lies within '*Locality 2 – Arbury and Stockingford*' and it is noted that a large new '*Arbury Strategic Housing Site – SHS2*' is proposed immediately adjacent to Ensor's Pool. The site is to support approximately 1000 homes with secondary and primary schools and other associated infrastructure.

The HRA for the Nuneaton and Bedworth Borough Plan states that this strategic housing site is '*adjacent to Ensor's Pool SAC. Given the proximity to the SAC and the proposed numbers of residential properties, it is likely that the incidents of dogs, illicit fishing and general visitors to the site would increase. At this stage it is not possible to rule out a significant impact on the conservation objectives or management of the SAC'*.

The HRA also identifies an additional three employment sites approximately 300m to the west, 684m to the northwest and 676m to the east of Ensor's Pool. The assessment for all of these sites is as follows '*the potential proximity of a new employment site is likely to mean the SAC is subject to increased visitors during the day, which in turn increases the potential for pollution events and contamination of the water body. Increased visitors could therefore produce an adverse cumulative*

effect however without further information on the type of employment site; it is not possible to say whether this would result in a significant impact on the conservation or management objectives of the SAC'.

It is however noted in the Nuneaton and Bedworth Borough Council Borough Plan Preferred Options summary that developments of these sites will include '*measures to protect Ensor's Pool, local wildlife sites and the landscape setting of Arbury Hall*'.

Given the proximity of the new developments (in particular the adjacent Arbury Strategic Housing Site), it is considered likely that without appropriate mitigation this new development and adjacent new employment could lead to an increased:

- risk of pollution to Ensor's Pool by surface run-off;
- chance of introduction of non-native species; and
- chance of increasing the water levels if inadequate measures are put in place to ensure a reduction of surface water flooding as part of the design of any new development in the area.

It is noted that the borough plan confirms development will include measures to protect Ensor's Pool and **hence at this stage there is no evidence to suggest the Nuneaton and Bedworth Borough Plan will result in an in-combination impact on the current Warwickshire Minerals Plan**.

Further consultation with Nuneaton and Bedworth Borough Council in July 2015 has revealed that the 2013 HRA report has gone to Natural England for consultation and further consideration of appropriate mitigation for any works that could impact Ensor's Pool as part of the plan is currently being undertaken.

4.2.4. North Warwickshire's Proposed Submission Core Strategy

The Core Strategy for the Local Plan for North Warwickshire (formerly the Local Development Framework (LDF) was adopted in 2014.

An HRA Screening report for North Warwickshire's Proposed Submission Core Strategy was produced by Land Use Consultants (LUC) in October 2012. In July 2014, an addendum to this report was also prepared by LUC to further assess subsequent proposals to make modifications to the Core Strategy.

Ensor's Pool SAC was noted to be approximately 3km to the east of the North Warwickshire Borough boundary. The site was not considered to be impacted by the North Warwickshire's Proposed Core Strategy or via any of its subsequent proposed main modifications. Given the SAC is considered to be primarily rain-water fed this plan should not have an impact on water levels within Ensor's Pool. The plan goes on to conclude that '*water quality effects and the risk of introduction of invasive species are not likely to have a significant effect from proposals in the Core Strategy, as the scale of development proposed within North Warwickshire is relatively small, the nearest focus for development, Atherstone is approximately 6.7km from the site*'.

The River Mease is noted to be located approximately 1.3km from the North Warwickshire Borough boundary. The HRA for North Warwickshire's Proposed Submission Core Strategy highlights that '*water qualify is a particular concern since phosphate targets are already exceeded at the site and any additional load on the sewage treatment works in the catchment could exacerbate this. However the HRA for the North Warwickshire Proposed Core Strategy considered that most of the new housing and employment proposed lies within the catchment of the River Anker rather than the River Mease hence the HRA concludes that the plan will not impact the water quality of the River Mease*'.

It is therefore concluded that **North Warwickshire's Proposed Submission Core Strategy will not have any in-combination effects with the current Warwickshire Minerals Plan** on either the River Mease SAC or Ensor's Pool SAC.

4.2.5. Leicestershire Minerals and Waste Core Strategies

The current Minerals Core Strategy and Waste Core Strategy (with associated Development Control Policies) were adopted in October 2009. A review of the County's Minerals and Waste Core Strategies began with the production of the 'Issues document' in November 2013.

A Habitats Regulation Assessment of the Leicestershire Minerals and Waste Local Plan up to 2031 – Consultation Draft July 2015 was undertaken by Leicestershire County Council in 2015.

Given that Ensor's Pool lies 5km from the boundary of Leicestershire it not considered that the plan would have a significant impact on this SAC. The River Mease SAC was the only European Site that was considered in terms of potential LSE in the HRA.

The HRA highlights that only one site (Donington Island) lies within the River Mease catchment within Warwickshire, but the assessment of the proposed impacts of this site on the River Mease was that this site would not lead to a LSE on the Conservation Objectives of the River Mease. The HRA highlights a specific policy DM 7 which highlights the protection of internationally important biodiversity sites. The HRA does however state that '*future works in the catchment area of the River Mease SAC may require appropriate assessment to ensure that the qualifying interest and conservation objectives of the site are not affected*'.

Given these findings it is therefore concluded that the Leicestershire Minerals and Waste Core Strategies are they currently stand in the Issues document will not lead to any in-combination effects with the current Warwickshire Minerals Plan.

4.2.6. Leicestershire Local Transport Plan

Leicestershire's third Local Transport Plan (LTP3) was published in 2011 (Leicestershire County Council 2011a). The LPT3 consists of two parts: the long-term strategy (2011 to 2026) and the short term 3 year implementation Plan. The aim of the strategy is to '*manage and develop the county's transport system in the future*'. No specific mention of European / Natura 2000 or International sites is made in the strategy and no HRA has been conducted.

Chapter 10 of the strategy states that '*Overall, however with the exception of the major transport infrastructure development, the threat of our transport system to biodiversity is considered low*'. '*The threat will be managed through the use of our existing procedures and information, and through adopting good design and maintenance principles'*.

Whilst no HRA was undertaken for the Leicestershire Local Transport Plan a SEA was undertaken in March 2011 (Leicestershire County Council 2011b). The SEA concluded that '*There are no transport strategy or policy proposals in LTP3 which are likely to cause significant net harm to the natural environment, heritage, and social wellbeing or human health*'. Given that part of the River Mease SAC and its catchment area lie within Leicestershire there is potential for any future local transport schemes to lead to pollution of the **River Mease catchment which could lead theoretically lead to in-combination impacts. However these should be dealt with under the river Mease Diffuse Water Pollution Plan (see Section 4.2.16) and each individual scheme will be subject to their own project level HRA to avoid impacts. It is therefore considered at this stage, when no known specific transport projects have been identified by Natural England or the Environment Agency to**

Warwickshire County Council that no in-combination effects with this plan and the Warwickshire Minerals Plan.

4.2.7. North West Leicestershire District Council Local Plan

The North West Leicestershire District Local Plan 1991 to 2006 was adopted in 2002, some of these policies were saved under the Planning and Compulsory Purchase Act 2004 until September 2007. The council is currently preparing a new local plan with the last consultation held in the summer of 2014. Following consultation a new local plan has been drafted that is due to be considered by full Council in September 2015. A shadow HRA to inform the HRA of the local development plan was produced by DTA Ecology on 24th June 2015. In this shadow HRA, the River Mease is identified as being a European Site that could potentially be affected by the new draft local plan. The key potential effects identified upon the River Mease were discharge of waste water, disturbance associated with proximity of development, and emissions to air, water and soil. Eight policies were identified as having LSE. However the HRA provides some suggested wording and concludes that provided the recommendations in the HRA report are incorporated into the plan '*the Draft Local Plan will have no likely significant effects, either alone or in combination with other plans and projects, upon any European sites. An appropriate assessment is note required.*' (DTA 2015).

Provided the relevant recommended changes as per the HRA are made to the plan, it is not considered that this plan will have any in-combination effects with the Warwickshire Minerals Plan.

4.2.8. Staffordshire and Stoke-on-Trent Joint Waste Core Strategy 2010 – 2026

This strategy was adopted in March 2013. '*The aims of the Plan are to ensure that there are sufficient opportunities for the provision of waste management facilities to manage the waste produced in the area, and also to manage the change in the type of facilities that are required to re-use, recycle and recover more from the waste produced*.'

The Joint Waste Local Plan does not allocate any sites for the development of new waste facilities and its policies are not linked to a specific location.

A HRA of '*Sites with Potential to Meet the Waste Management Capacity Gap*' was undertaken by LUC in 2011. This HRA identified there are total of 23 European Sites within 15km of the boundary of the county of Staffordshire. Nine of these sites were scoped out of any potential impacts with the remaining 14 scoped in has having a possibility of LSE. Further screening assessment found that *'development of waste facilities at 50 of the 95 sites with potential would not generate any significant impacts owing to their proximity*' to European Sites (LUC 2010). The report then highlights which potential waste sites would likely need a full Appropriate Assessment at the project / site level stage should they be put forward for development as part of the Staffordshire Waste Plan. We have not been advised by Natural England or the Environment Agency of any specific waste projects currently planned that are likely to have in-combination impacts with the Warwickshire Minerals Plan **and hence at this stage we conclude there are no impacts to consider**.

4.2.9. Staffordshire Emerging Minerals Local Plan

The current Minerals Local Plan for Staffordshire and Stoke-on-Trent was for the period 1994 to 2006 and was adopted in 1999. Staffordshire County Council are currently producing a new Minerals Local Plan, for which the public consultation period ended in the summer of 2015. It is currently anticipated that the plan will be adopted around the autumn / winter of 2016.

An HRA Screening of Allocated Sites was undertaken by Staffordshire County Council in June 2015. A total of 15 possible minerals sites were considered. Three of these sites were ruled out of having any adverse effects on European Sites, nine were identified as requiring further information '*before the risk of impact could be ruled out*' and three were identified as needing '*detailed assessment*' before planning permission could be granted (Staffordshire County Council June 2015). .

This plan is still in development and we have not been made aware of any specific projects by the Environment Agency or Natural England that we need to consider at the time of writing. We therefore conclude at this stage **there are no In-combination impacts of this plan with the Warwickshire Minerals Plan.**

4.2.10. Staffordshire Local Transport Plan

The Staffordshire Local Transport Plan was adopted in 2011 and aims to set out the council's '*proposals for transport in the county, including walking, cycling, public transport, car based travel and freight, together with the management and maintenance of local roads and footways*' (Staffordshire County Council Website 2015). The plan runs up until 2026. The Plan has a whole Chapter 7 dedicated to 'Respecting the Environment'. It includes Policy 7.9 that specifically aims to '*protect the network of internationally significant nature conservation sites*' as well as a policy to minimise pollutants entering watercourses.

The 2011 HRA assesses the potential implications for 8 European Sites within the influence of the plan. Some additional policies were suggested and the HRA concludes '*it should be entirely possible to avoid and mitigate any adverse impacts on N2K sites arising from measures proposed in the Local Transport Strategy Plan either alone or in-combination with other plans or projects*'. No specific projects under this plan have been identified by the statutory agencies as likely to have an In-combination impact with the Warwickshire Minerals Plan, **so it is currently concluded there are no in-combination impacts to consider**.

4.2.11. Lichfield District Council Local Plan

The Lichfield District Local Plan Strategy for 2008 to 2029 was adopted in February 2015. Lichfield District lies adjacent to Warwickshire and within the River Mease catchment.

In May 2012 an HRA of the Lichfield District and Tamworth Borough's Local Plans was undertaken. The HRA highlights that in relation to the River Mease SAC no allocations are provided in the plan but that new housing development could lead to impacts to the River Mease through increased discharges from sewage works / waste water treatment works in the catchment. The report however goes on to highlight that the Lichfield District Local Plan does include specific policies to '*enable protection of water quality, quantity and biodiversity of the SAC to be safeguarded from development. It is therefore considered that the impacts on the River Mease arising from the Lichfield Local Plan and Tamworth Local Plan will not be significant*' but goes onto to state that when further details of projects are provided a further assessment may be required. The HRA also highlights the River Mease Developer Contribution Scheme that may enable the local plan to '*contribute positive to the health of the River Mease*' (see Section 4.2.15).

No specific projects under this plan have been identified by the statutory agencies as likely to have an in-combination impact with the Warwickshire Minerals Plan so it is currently concluded there are no in-combination impacts to consider.

4.2.12. South Derbyshire District Council Local Plan

The River Mease lies within the area covered by South Derbyshire District. South Derbyshire District Council is currently producing a new local plan that will replace the existing South Derbyshire Local Plan. The new plan comprises two parts: part 1: Core Strategy and part 2: that provides the details of the smaller development sites within South Derbyshire. An HRA of the main report was undertaken in March 2014. The HRA highlights that whilst the plan seeks to '*allocate 13, 454 homes and 53ha of employ land to 2028*'… '*none of the development proposed is within the River Mease catchment and will not increase foul or surface water flows to the catchment.*' **It is therefore not considered that this plan will impact the River Mease SAC and therefore no in-combination impacts with the Warwickshire Minerals Plan are anticipated.**

4.2.13. Warwickshire Local Aggregate Assessment 2015

During initial consultation with the Environment Agency, this plan was highlighted for consideration as part of the In-combination Assessment. The Local Aggregate Assessment (LAA) has been used to '*underpin the Minerals Plan by setting out the parameters of how much aggregate will be required to plan for over the plan period. This will impact on how many sites might be required for aggregate extraction in the County until 2032*' (WCC 2015c). The requirement to produce a LAA was brought in by the NPPF in 2012.

The plan provides details on the sources of aggregate in Warwickshire with details of historic sales, current reserves and landbanks of minerals within the County. This information has been used to determine the 9 Preferred Sites and 21 Rejected Sites that are assessed as part of this HRA. A key finding of the LAA is that Warwickshire's sand and gravel have been found to be declining, leading to the selection of the 9 Preferred Sites in Warwickshire within the Warwickshire Minerals Plan aimed to help reduce this short-fall.

The implications for European Sites as a result of the LAA are provided in this HRA of the Minerals Plan and hence it is **not considered that this plan will have any In-combination impacts with the Warwickshire Minerals Plan.**

4.2.14. Site Assessment Methodology for Allocating Sand and Gravel Sites 2015

This document, like the LAA also supports the Warwickshire Minerals Plan providing the methodology for the selection of the 9 Preferred Sites from the total 30 sites proposed for sand and gravel extraction in Warwickshire. The document confirms that any proposed minerals sites that could have an adverse impact on European Sites were excluded from selection.

'*Sites have been excluded if they would cause a significant adverse effect on an international or national designation either through overlapping physical location or indirect effects*.'(WCC 2015b).

This criteria has aided to protect European Sites from any adverse effects of the allocation of sand and gravel sites and hence no negative impacts to European Sites from the sites selected are anticipated and no in-combination effects are anticipated from this plan.

4.2.15. River Mease SAC Water Quality Management Plan

During initial consultation with Natural England and in relation to the In-combination Assessment for the LFRMS, Ecology Services at WCC was asked to consider the '*River Mease Special Area of Conservation, Water Quality Management Plan (WQMP), Developer Contribution Scheme*' prepared by David Tyldesley and Associates (DTA) in October 2012.

Given that any proposed development under the Warwickshire Minerals Plan, proposed within or close to the River Mease catchment in the north of Warwickshire (see Figure 5), could be subject to the Development Contribution Scheme, this plan is included in this In-combination Assessment.

The Developer Contribution Scheme (DCS) for the River Mease was developed following survey work by the Environment Agency that '*revealed the quality of the water in the river was poor, mainly due to high phosphorous levels.*' The DCS '*currently applies to all development which contributes additional wastewater via the mains sewerage network to a sewage treatment works which discharges into the catchment of the River Mease SAC*.'

The section of the River Mease catchment plan that lies within Warwickshire is included within the River Mease from Hooborough Brook to Trent area (see map in Figure 15, Appendix 1) and hence falls within the remit of this DCS. The DCS confirms that '*all new development which contribute additional wastewater to the foul water catchment areas of the above treatment works will be subject to a developer contribution*'.

Any increase in phosphorous pollution into the River Mease will have a negative impact on the River Mease SAC.

The plan aims to improve and protect the River Mease SAC and will not lead to any negative impact on the SAC itself, so it therefore cannot lead to any cumulative in-combination impacts with the Warwickshire Minerals Plan. So for the purposes of the In-combination Assessment the plan can be excluded.

If however the Warwickshire Minerals Plan does lead to any development within the section of Warwickshire that is included in the plan, it may be that the DCS could be relevant to these developments (which do not necessarily have to be residential as the plan states that non-residential development will '*be assessed on a case by case basis, with the contribution being calculated on the basis of the estimated volume of wastewater to mains associated with the nature and scale of the development being proposed*').

The contributions made under the DCS are used to fund specific mitigation measures aimed to reduce the level of phosphorous and hence nutrient level in the River Mease, from both point and diffuse sources (in line with the SIP for the River Mease).

Specific mitigation measures stated in the plan may be worth implementing to reduce any additional phosphorus input into the Warwickshire section of the River Mease catchment.

Mitigation measures include:

- installation of silt traps especially where roadsides are being eroded (and can lead to road run-off into rivers and tributaries), an important pathway of phosphate release in rivers
- River restoration projects including '*floodplain restoration, wetland and wet woodland creation, riparian planting and restoration, removal of modified bank structures and re-naturalising bank profile and weir removal*'. Appropriately managed and created woodland and wet grassland can slow down surface water and hence reduce the sediment and phosphorus loading into a river via surface water. Taking land out of agricultural production also reduces the use of phosphate-rich fertilisers and is another example of mitigation.

4.2.16 The River Mease Diffuse Water Pollution Plan

This plan, produced jointly by the Environment Agency and Natural England in 2011, identifies existing pressures and impacts on the River Mease and provides an action plan of measures required

to combat these. There is a commitment from both Agencies '*to gather evidence and implement necessary remedy measures as guided by this plan, in order to maintain an improving trend in nutrients and sediment in the Mease catchment, so that SSSI condition targets are achieved in the future*'. **The plan's principle aim is to protect and enhance the River Mease SAC and hence no HRA and no In-combination effects are anticipated as the plan aims to conserve the River Mease and there are no negative impacts predicted.**

4.3. Summary of In-combination Assessment

The In-combination Assessment of those plans highlighted by Natural England and the Environment Agency at the initial consultation stage has concluded **that there are no in-combination impacts to consider at this stage of the HRA process.**

Given this is a iterative document, it may be that subsequent HRAs will require other plans to be assessed following further statutory consultation and include any new proposals that arise in the interim period between this draft document being produced and the final document.

5. Incorporated Mitigation and Recommendations

This Stage 1 HRA has considered all aspects of the current version of the Warwickshire Minerals Plan Summer 2015 in terms of assessing any potential Likely Significant Effects to the Conservation Objectives of Ensor's Pool SAC and the River Mease SAC.

The initial screening exercise has identified a total of eight policies have been screened in to the HRA (MCS1,2,3,4,5,6,7,8). These are highlighted in Table 10. This suggests at this stage that there is a need to progress to Stage 2 of the HRA process (see Figure 2) and an Appropriate Assessment will be required.

However an alternative option (as per Figure 3), which would avoid the need for a full AA, is to ensure the addition of 'incorporated mitigation measures' into the Warwickshire Minerals Plan to ensure the plan has no LSE on European Sites given the level of information that is currently available within the Warwickshire Minerals Plan.

It is therefore recommended that the following text (or similar wording providing the same meaning) is added to Policy DM 1:

'*The plan should ensure that European Sites (Natura 2000 sites) will be protected. Any proposed development that could lead to a negative likely significant effect on any of the qualifying features of any European Site will not be permitted unless there are no alternatives and there are imperative reasons of overriding public interest that could be of a social and economic nature or relating to human health, public safety or benefits of primary importance to the environment.***'**

This screening HRA confirms that all the 9 Preferred Sites and 21 Rejected Sites are scoped out of having any LSE on Ensor's Pool SAC or the River Mease SAC.

The inclusion of the above wording within DM 1 will enable the plan to protect European Sites unless there are no alternatives and imperative reasons of overriding public interest.

This initial HRA recommends that any future planning applications that lie within or within a 2km buffer of the River Mease Catchment (based on the DMRB) or a 3km buffer of Ensor's Pool (on the recommendation of the Environment Agency) should be considered for a project level HRA when further details of the precise scheme and proposals are made available for consideration of LSE on these SACs. The buffers are illustrated on Figure 11 below.

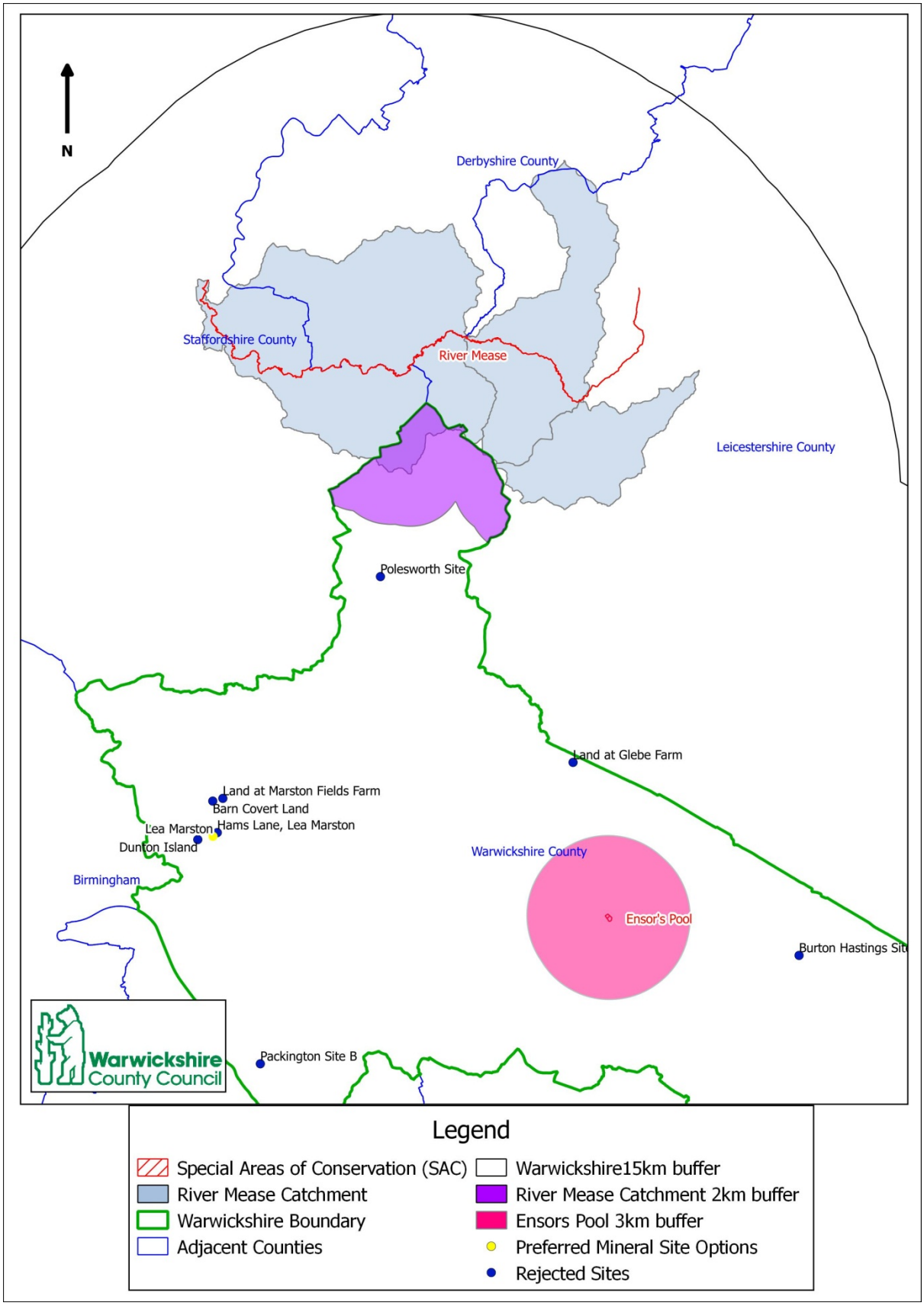

Figure 11 Buffers around European Sites that should trigger a project level HRA

6. Next Steps

The next steps are as follows:

- Warwickshire County Council Planning Policy Team to consider the recommended 'incorporated mitigation wording' to be included in DM 1 of the plan.
- Once this or similar wording amendments are made, the Warwickshire Minerals Plan can be re-screened with a view of enabling the screening out of the policies currently screened in to this initial HRA.
- This HRA report should be sent to Natural England and the Environment Agency for consultation and comment
- Following this re-screening (see step 8 of Figure 3), this HRA report will be updated to comprise version 2 including the implications of the incorporated mitigation wording as recommended in Section 5.
- Following consultation, and provided consultees (Natural England and the Environment Agency) are in agreement that no LSE are anticipated either alone or in-combination, the plan can be authorised and the final HRA report produced and the template within Appendix 5 of this report completed.

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Appendix 1: Figures 12 to 22

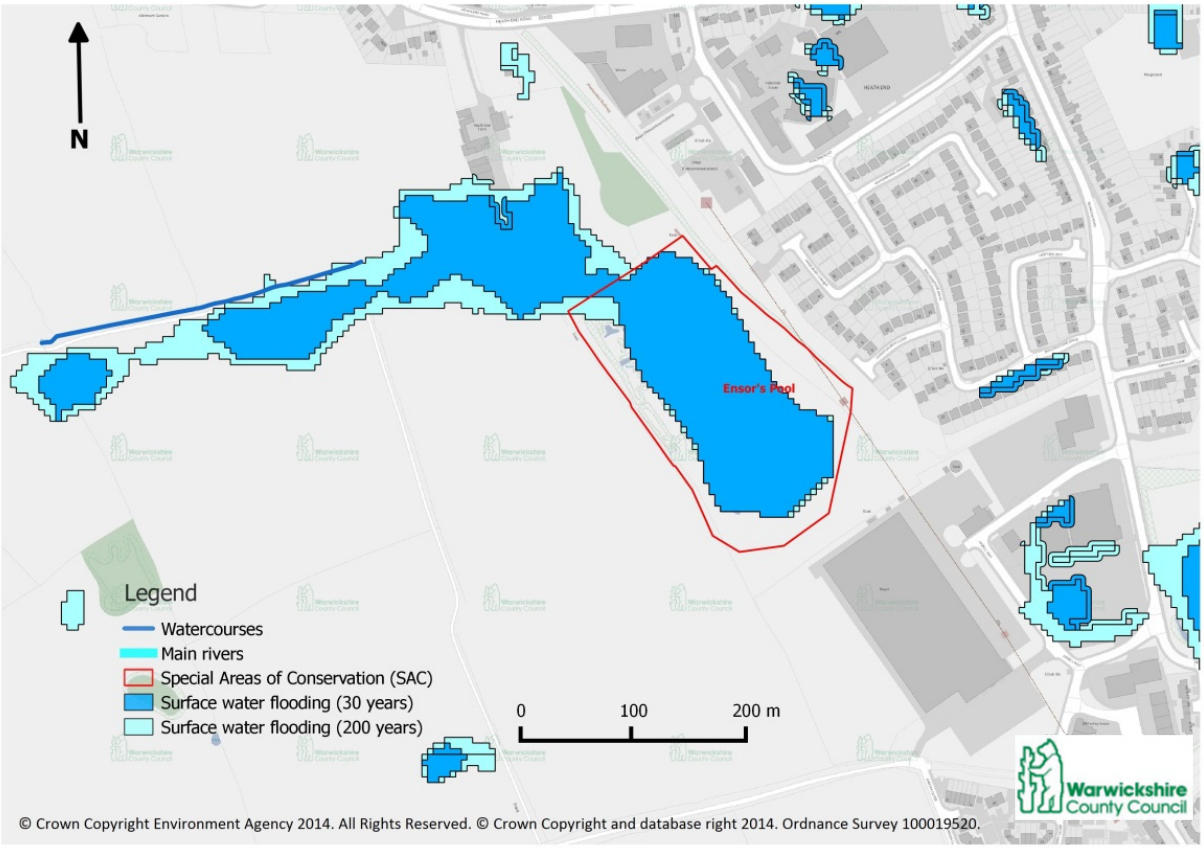

Figure 12: Ensor's Pool and surface water flooding predictions for 30 years and 200 years

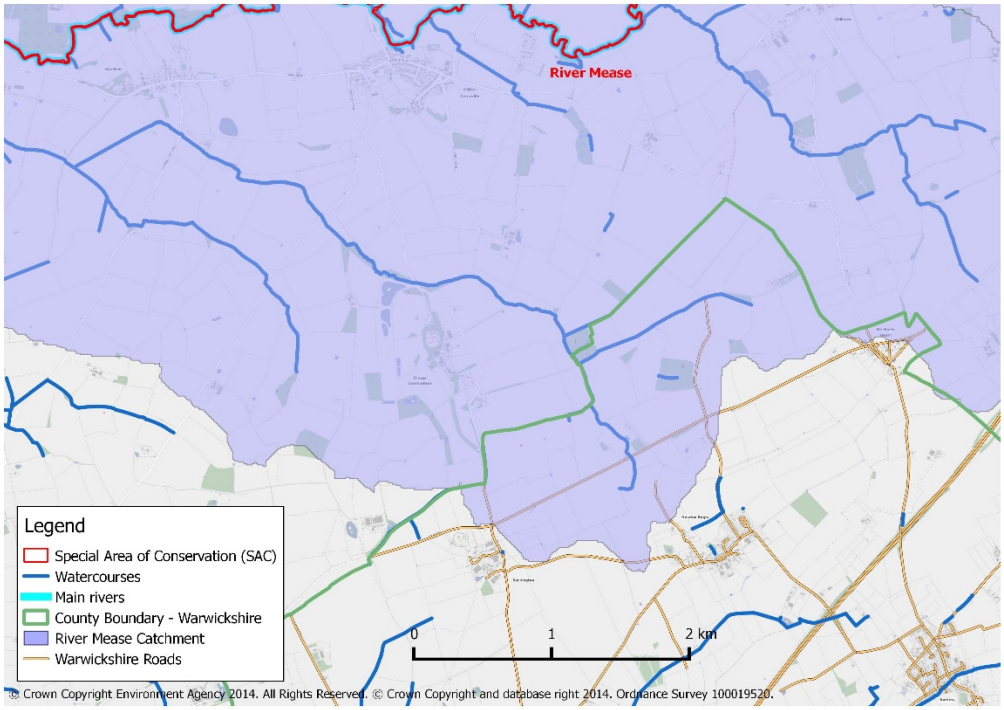

Figure 13: River Mease catchment area

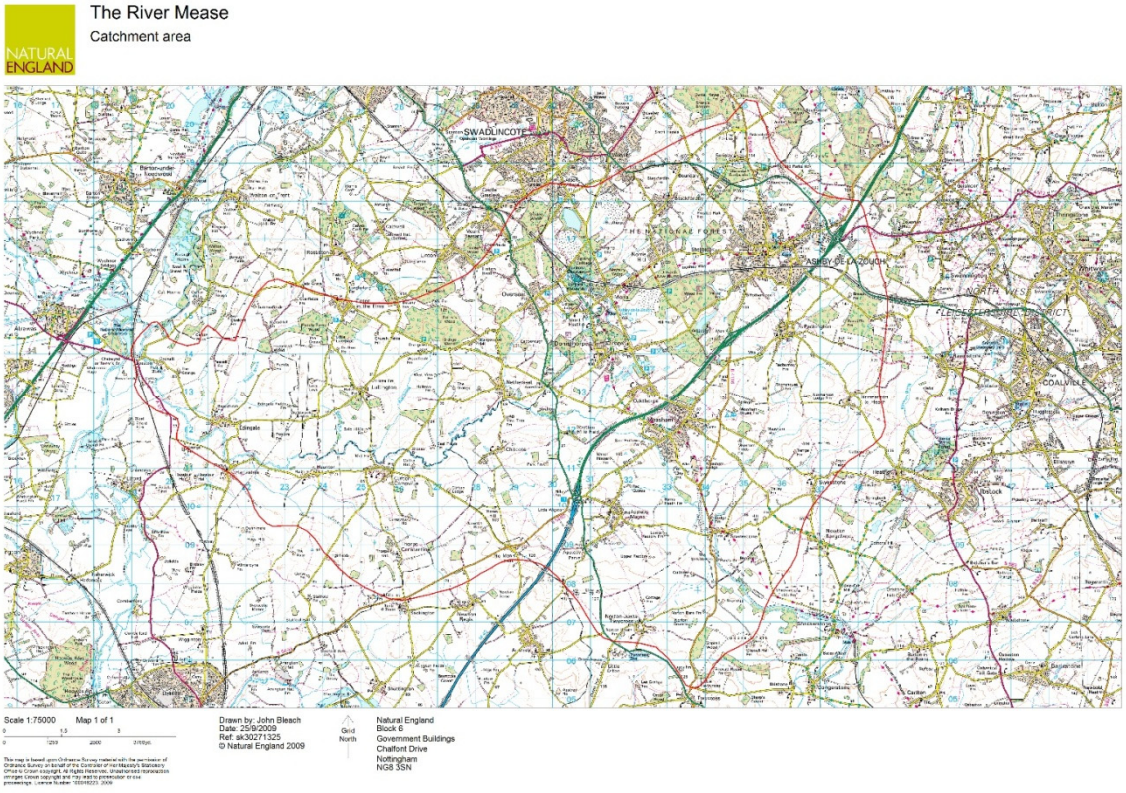

Figure 14: Natural England River Mease catchment area

Central Area - Tame and Anker Team
Mease catchment Plan - WFD reasons for failure

Waterbody ID	Waterbody name	Reason for Failure
GB104028046550	River Mease from Source to Gilwiskaw Brook	Rural Diffuse Pollution
		Water Company Point Source Pollution
GB104028046560	River Mease from Hooborough Brook to Trent	Rural Diffuse Pollution
		Water Company Point Source Pollution
GB104028046570	River Mease from Gilwiskaw Bk to Hooborough Brook	Rural Diffuse Pollution
		Water Company Point Source Pollution
GB104028046580	Hooborough Brook from Source to River Mease	Rural Diffuse Pollution
		Water Company Point Source Pollution
GB104028046590	Gilwiskaw Brook from Source to River Mease	Rural Diffuse Pollution
		Water Company Point Source Pollution

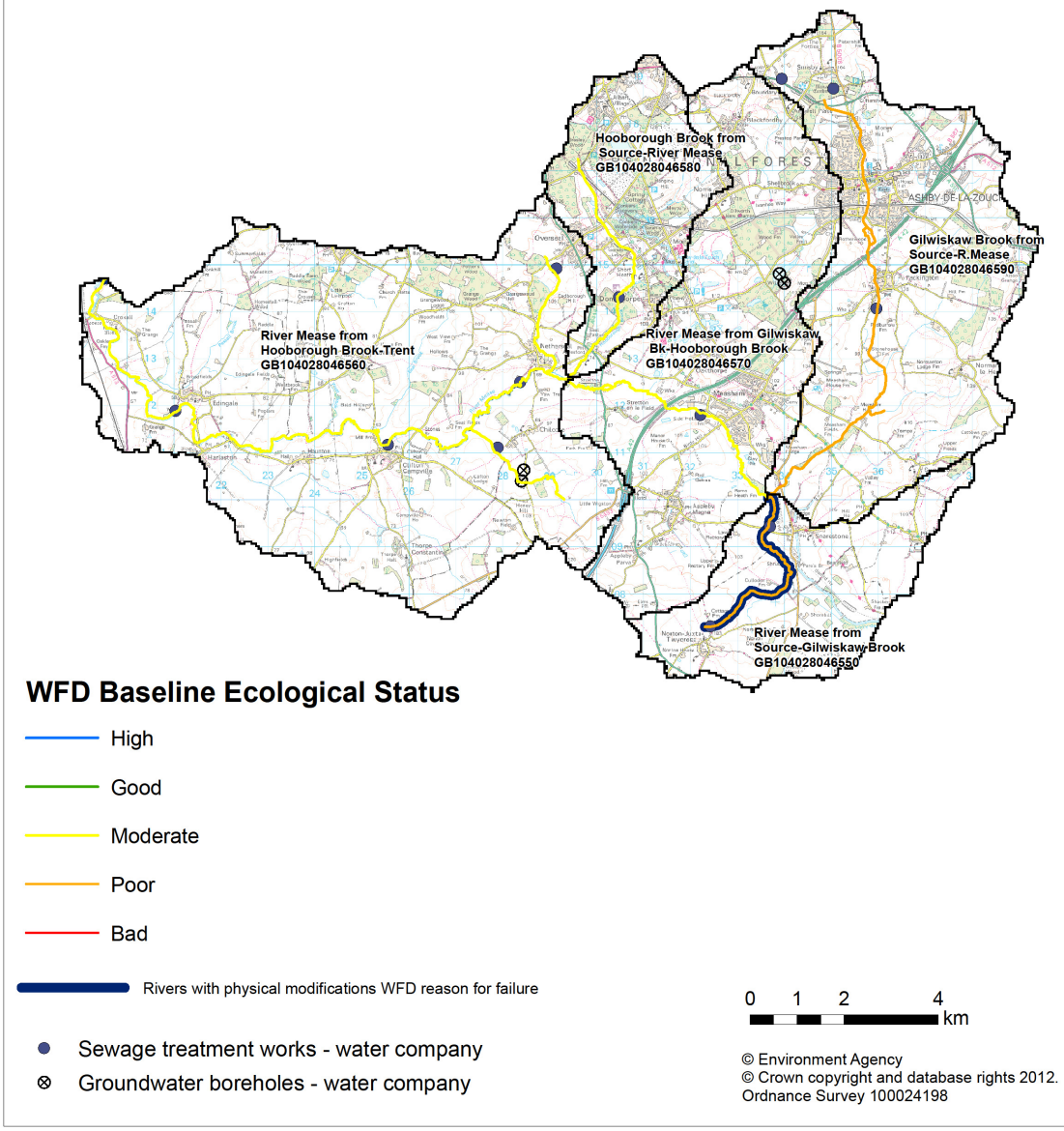

Figure 15: River Mease catchment plan map from the Environment Agency

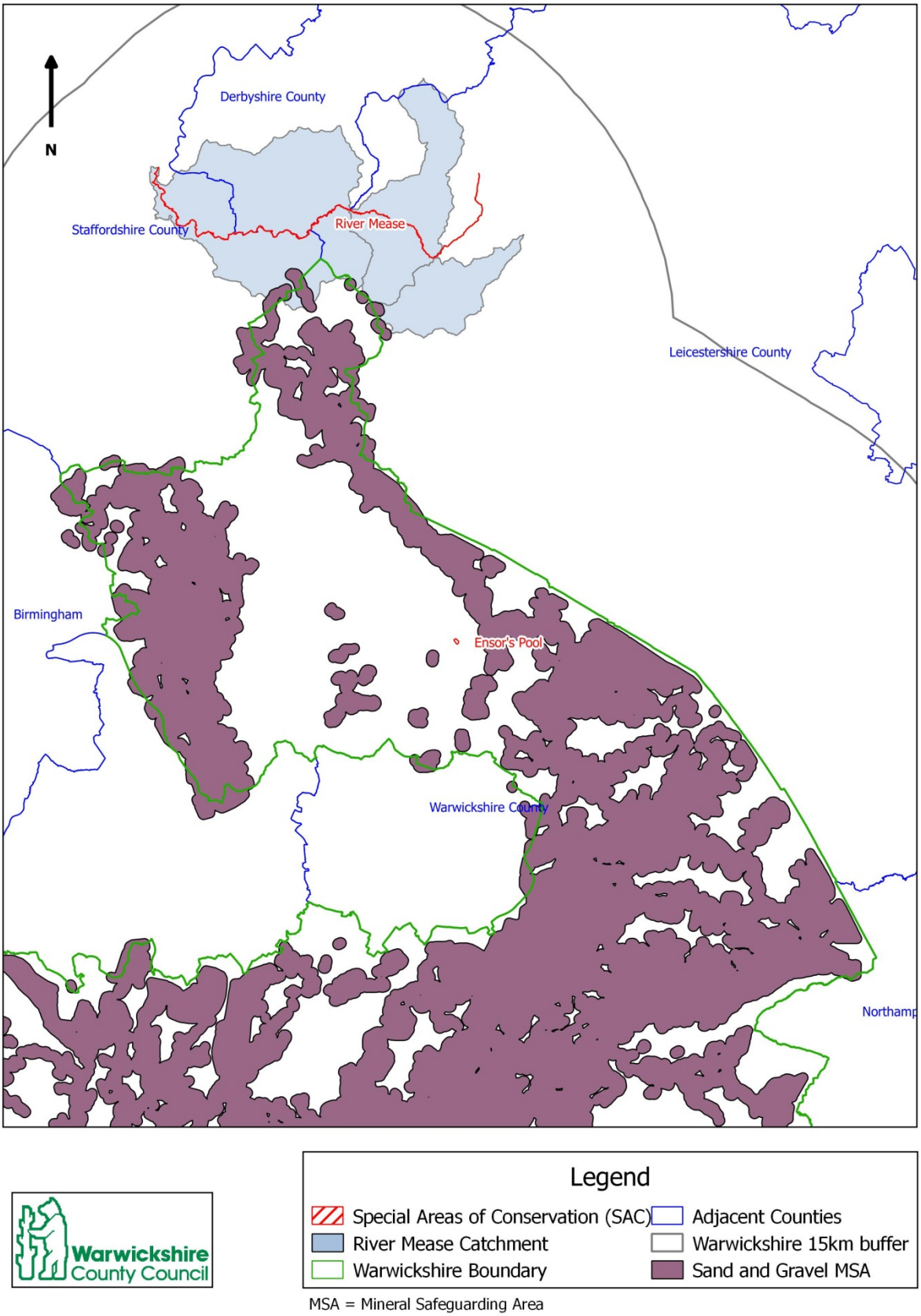

Figure 16: Proximity of the sand and gravel resource in Warwickshire

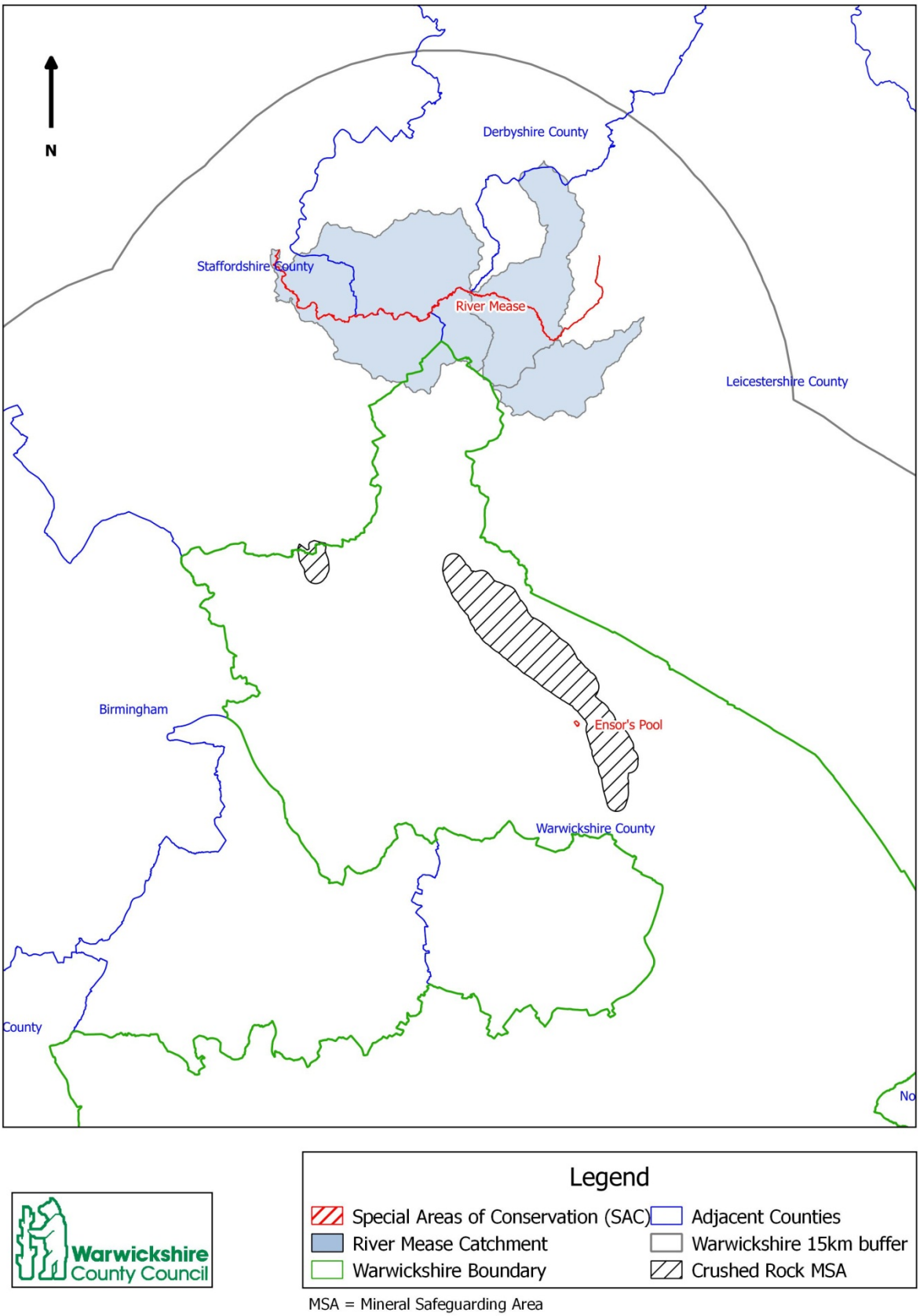

Figure 17: Proximity of the crushed rock resource in Warwickshire

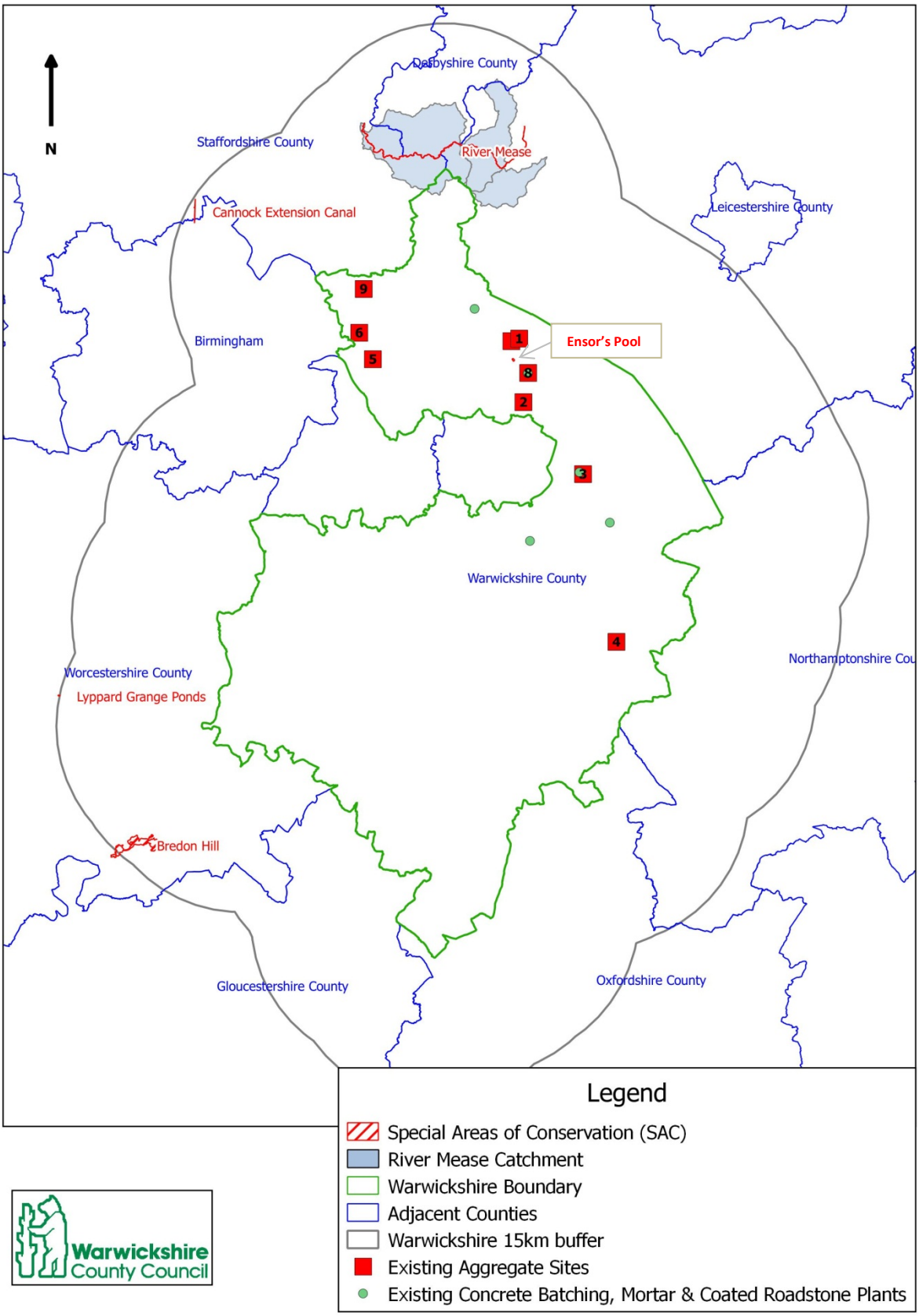

Figure 18: Proximity of existing concrete batching, mortar & coated roadstone plants in Warwickshire

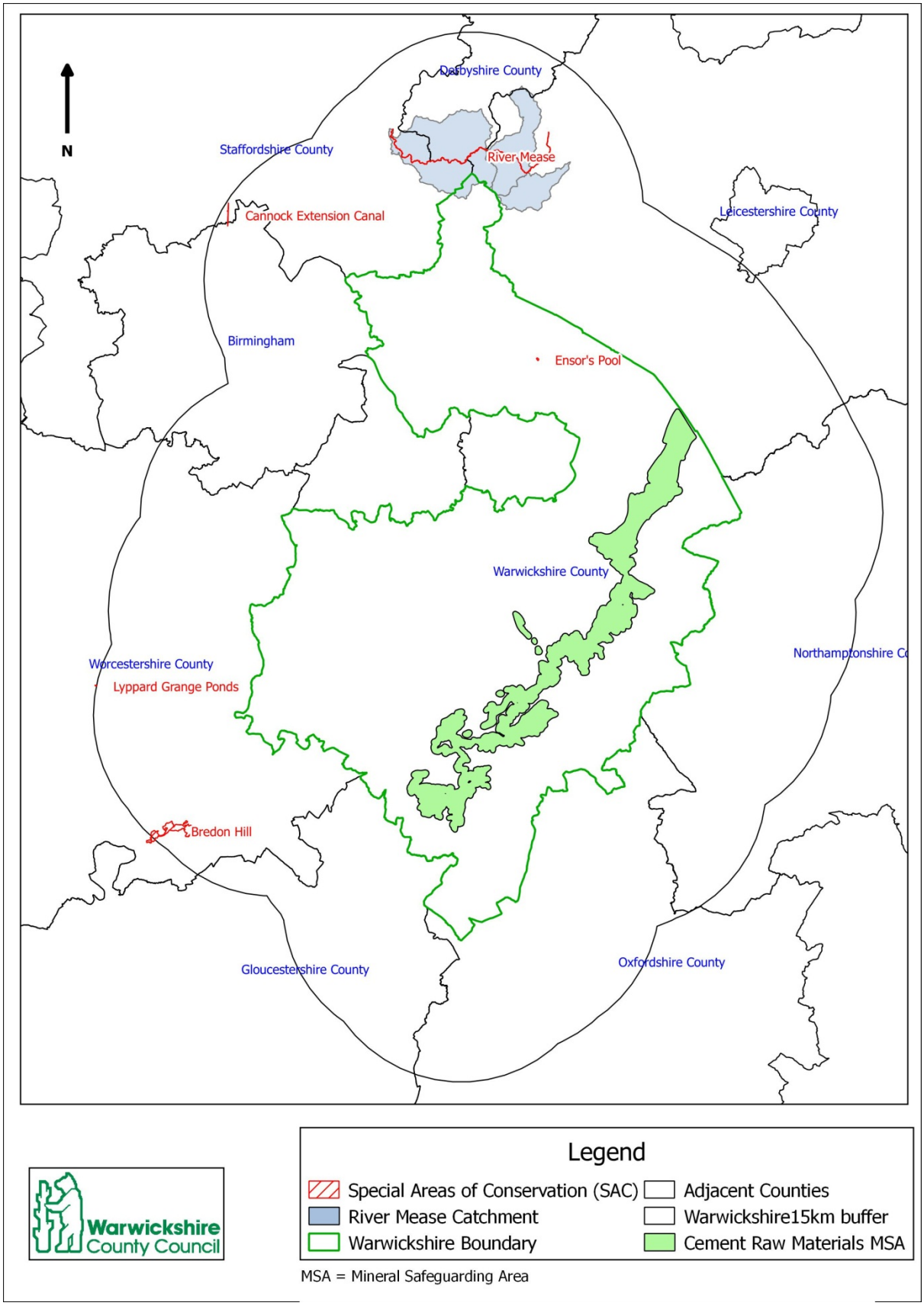

Figure 19: Proximity of cement raw materials in Warwickshire

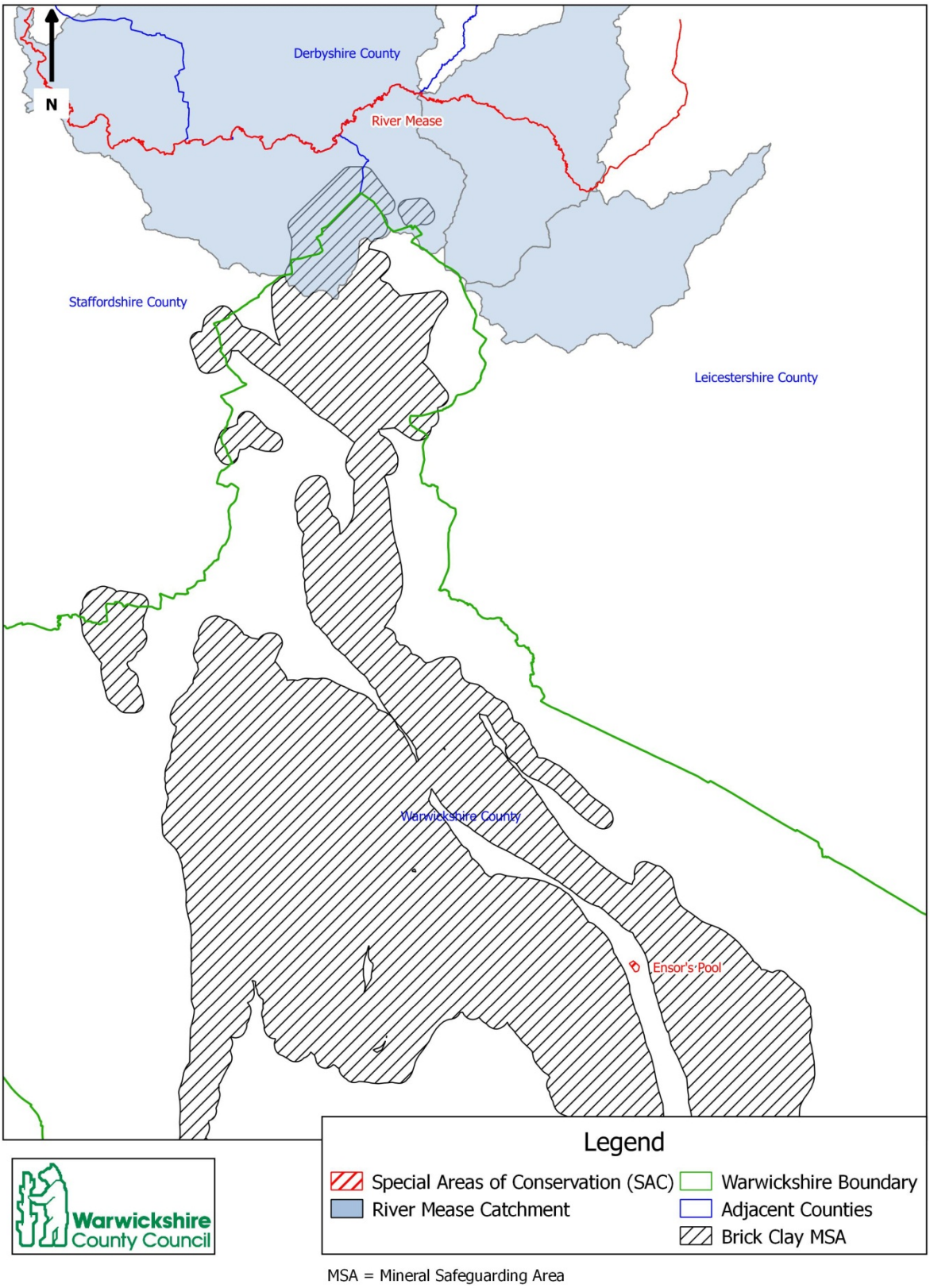

Figure 20: Proximity of brick clay resource in Warwickshire

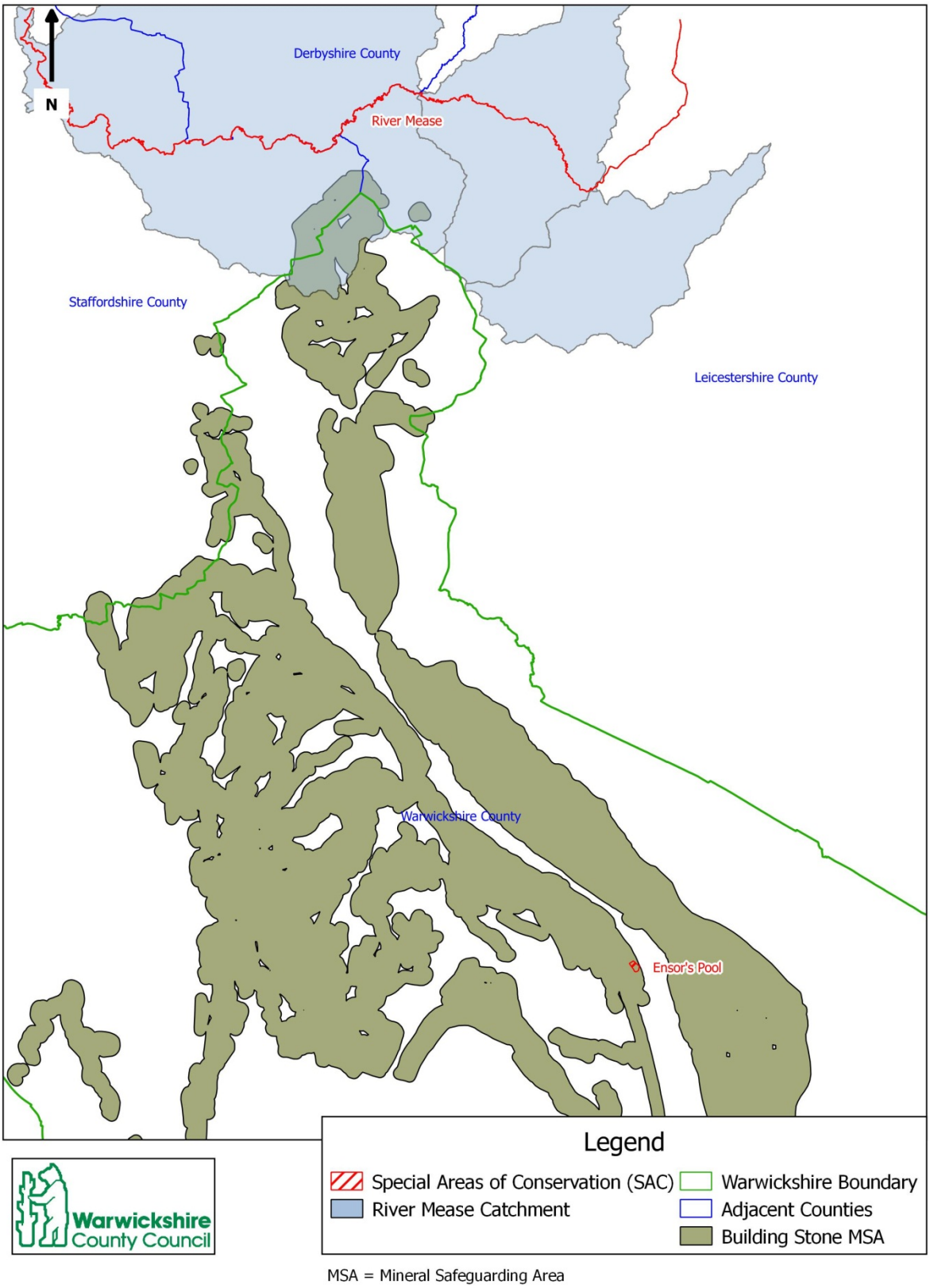

Figure 21: Proximity of building stone in Warwickshire

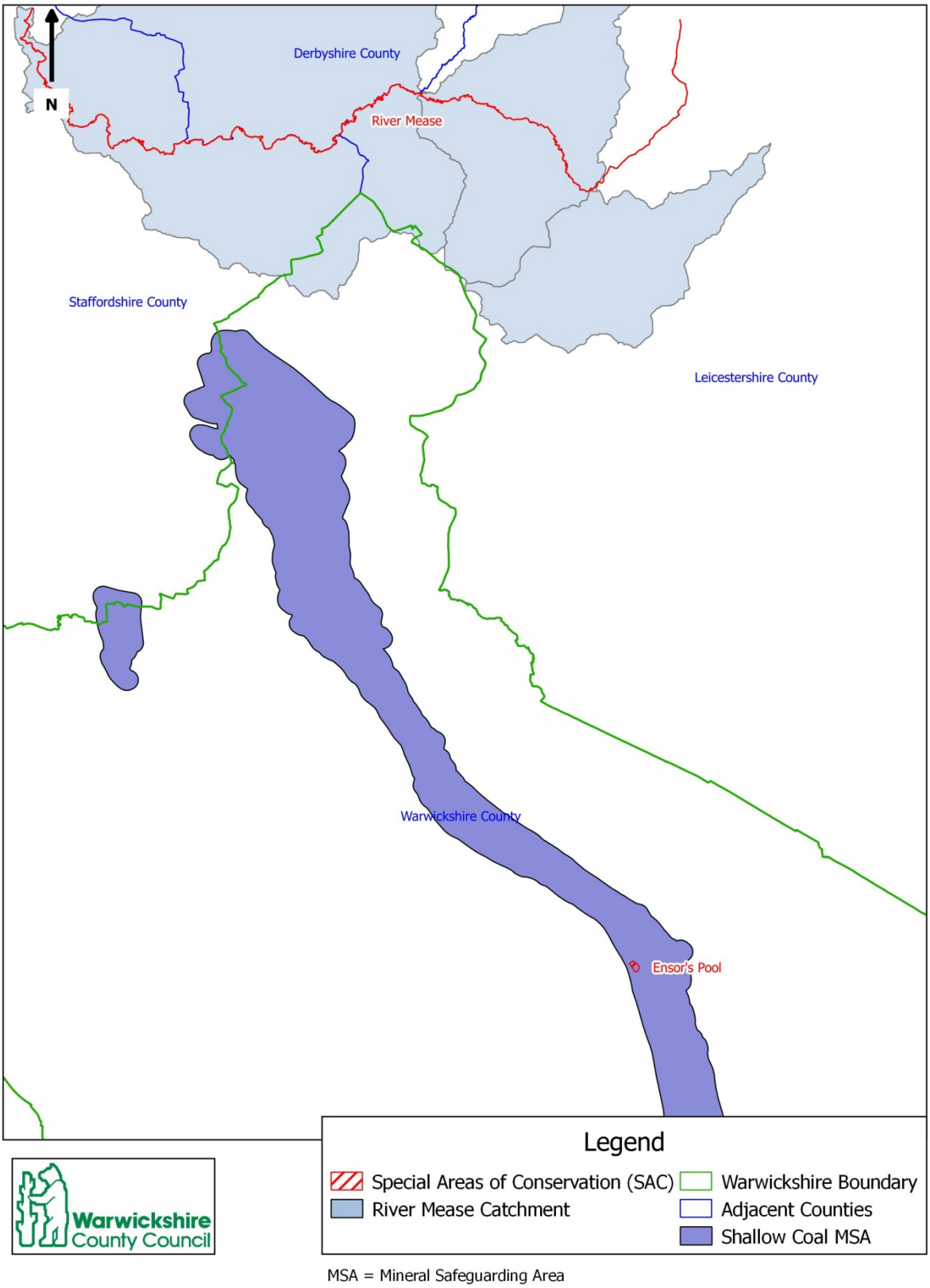

Figure 22: Shallow coal resource in Warwickshire

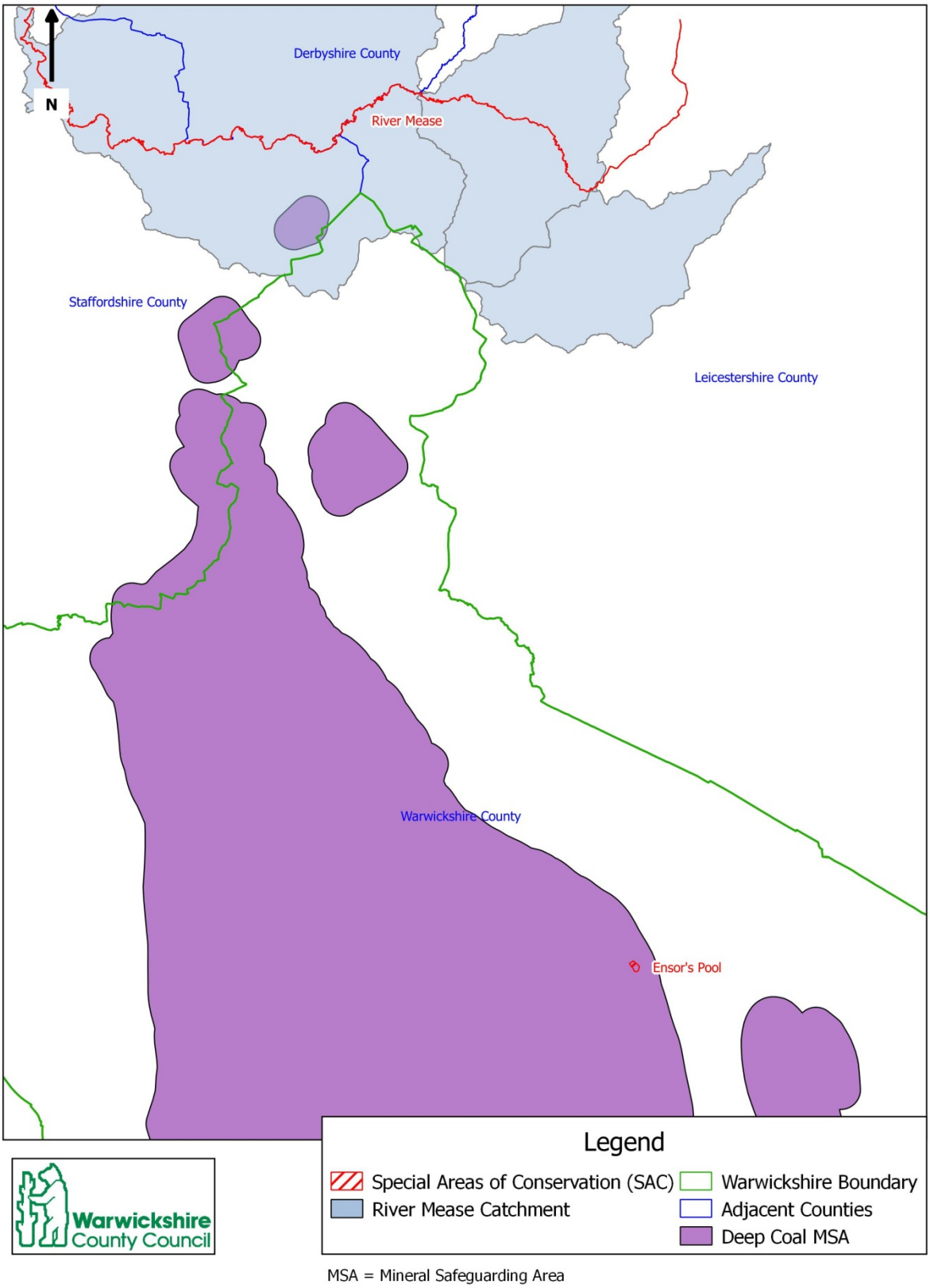

Figure 23: Deep coal resource in Warwickshire

Appendix 2: Key Consultation Responses

2.1. Natural England Correspondence

2.1.1. Correspondence from Antony Muller, Lead Advisor

Date: 03 July 2015
Our ref: 157743
Your ref: Email 24.6.15

NATURAL ENGLAND

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Warwickshire Ecology Unit

FAO Louise Mapstone

BY EMAIL ONLY

Dear Louise

Consultation: Request for advice regarding Habitats Regulations Assessment of plans or projects in relation to Ensor's Pool Special Area of Conservation (SAC)

Thank you for your phone call and email about the above on 24 June 2015.

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

Our advice letter of 14.1.15 still applies. Natural England confirms there is no change to the SSSI/SAC designation. We advise that Habitats Regulations Assessment (HRA) of plans and projects with the potential to affect the site should therefore be carried out on a 'business as usual' basis.

We continue to work with the Nuneaton and Bedworth Borough Council and the Environment Agency in order to decide what actions can be taken to address the loss of white clawed crayfish population at Ensors Pool.

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

For any queries relating to the specific advice in this letter only please contact me on 0300 060 1640. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely

Antony Muller
Lead Adviser – Sustainable Development and Wildlife Team – North Mercia Area

Date: 14 January 2015
Our ref: 140335
Your ref: Email 17.12.14

NATURAL ENGLAND

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
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Cheshire
CW1 6GJ

T 0300 060 3900

Warwickshire Ecology Unit

For the attention of Louise Mapstone

BY EMAIL ONLY

Dear Louise

Consultation: Request for advice regarding Habitats Regulations Assessment of plans or projects in relation to Ensor's Pool Special Area of Conservation (SAC)

Thank you for your consultation on the above dated 17 December 2014 which was received by Natural England on the same day. We are grateful for the extra time to reply.

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

Natural England confirms there is no change to the SSSI/SAC designation. We advise that Habitats Regulations Assessment (HRA) of plans and projects with the potential to affect the site should therefore be carried out on a 'business as usual' basis.

We are co-ordinating further investigations to confirm the presence of native crayfish in the Pool and further explore the reasons for the reduction or loss of the population. Depending on the outcome of our investigations we will be exploring options for restoration/reintroduction taking into account the practicalities of a site with public access. Any review of the designated site's condition will be carried out after this investigation work is complete.

I attach a copy of the media information about the SAC (released on 8.11.14).

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

For any queries relating to the specific advice in this letter only please contact me on 0300 060 1640. For any new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely

Antony Muller
Lead Adviser – Sustainable Development and Wildlife Team – North Mercia Area

Warwickshire County Council

Louise Mapstone <louisemapstone@warwickshire.gov.uk>

HRA of Warks Minerals Plan - update

Muller, Antony (NE) <Antony.Muller@naturalengland.org.uk> 24 August 2015 at 17:10
To: Louise Mapstone <louisemapstone@warwickshire.gov.uk>
Cc: "Steer, Eric (NE)" <Eric.Steer@naturalengland.org.uk>

Hi Louise

Our reference – 159832

Hope you had a good holiday. Some feedback following your email of 30.7.15:

HRA process

Happy to discuss this over the phone but in essence:

The favourable condition table document provides information based on using common standards monitoring. This is for use when assessing the condition of designated sites. Although to some extent you can use the FCT as part of your HRA thought process I would advise that your approach in the context of a development plan is very likely to need a wider consideration of potential impacts/ pathways that the FCT tables won't help with. Nonetheless I appreciate that in the context of the Ribble case it makes sense to ensure you take account of relevant information, such as the FCT document, as an interim measure.

The primary focus for your attention should be on the 'European site conservation objectives' for the relevant N2k site. Link to list of relevant docs here:

http://publications.naturalengland.org.uk/category/5134123047845888

As you may be aware work is in hand to supplement these updated conservation objectives with 'supplementary information'. Although this information has not yet been produced for Ensor's Pool SAC I attach a copy of our new operational standard which provides a full description of the revised approach.

In terms of the way forward, until such time as the supplementary information for relevant N2k sites is available we would encourage an iterative approach whereby you keep in touch with us as you carry out HRA of development plans. We propose that as you identify candidate impact 'pathways' that generate a need for environmental information to complete the thought process (and that might in the fullness of time be included in the forthcoming 'supplementary information' document) you can contact us to agree next steps. We envisage a 'light touch' here.

2.1.2. Correspondence with Kayleigh Cheese, Planning Advisor

Warwickshire County Council

Louise Mapstone <louisemapstone@warwickshire.gov.uk>

Advice regarding an HRA of Warwickshire's Minerals Plan

6 messages

Louise Mapstone <louisemapstone@warwickshire.gov.uk> 24 June 2015 at 14:53
To: "Melvin, Jamie (NE)" <Jamie.Melvin@naturalengland.org.uk>, Hayley.Fleming@naturalengland.org.uk

Dear Jamie and Hayley

I'm writing to you both in relation to the HRA of Warwickshire's Minerals Plan that I've been tasked to complete on behalf of Warwickshire County Council. I previously contacted Jamie in December last year in relation to another HRA I was working on for our Local Flood Risk Management Strategy that should be with you shortly for further consultation and comment. At that time, Hayley was on maternity leave and as I'm not yet sure if she has returned, so I am writing to you both on this occasion.

In addition to this email, today I have also spoken and emailed your colleague Antony Muller in relation to the current status of Ensor's Pool SAC and he has confirmed for now, the situation remains the same as it did in January 2015 and I am anticipating a formal response letter in relation to this HRA shortly.

So in contacting you now I'm interested in your thoughts on the following two areas:

1) We are required to undertake an in-combination screening assessment in relation to other relevant plans and projects in the area that we should be considering as part of this work. We would like to identify with you any specific projects and plans that need to be considered in-combination specifically relating to this minerals plan.

We previously discussed and included in the previous HRA, the Nuneaton and Bedworth Borough Plan which I assume we will also need to consider in relation to this HRA?

The other plan we discussed earlier this year was the River Mease SAC Water Quality Plan.

I am currently in the process of assessing if the Minerals plan could have any potential impact on the section of the River Mease catchment that lies within Warwickshire and Ensor's Pool, and hence to assess if these plans need to be considered.

I'd be grateful if you could let me know if there are any further plans or projects that you know of that we should be considering as part of this HRA?

2) We'd also be interested in getting your thoughts on the area outside of Warwickshire that you think we should be considering as part of the HRA. Previously we have considered a 15km buffer around Warwickshire's boundary.

I'm also going to be contacting the Environment Agency in addition in relation to this matter, but please do get in touch if you require any further information, contact details can be found below.

We look forward to hearing from you

Kind Regards

Louise

Louise Mapstone MSc CEnv MCIEEM AIEMA
Ecologist
Warwickshire County Council
Tel 07826 904421

Warwickshire County Council

Louise Mapstone <louisemapstone@warwickshire.gov.uk>

Advice regarding an HRA of Warwickshire's Minerals Plan

Cheese, Kayleigh (NE) <kayleigh.cheese@naturalengland.org.uk> 10 July 2015 at 09:07
To: louisemapstone@warwickshire.gov.uk

Dear Louise,

Thank you for contacting Natural England regarding the HRA of Warwickshire's Minerals Plan.

Other plans to be included should be any minerals & waste plans, local plans and transport & infrastructure plans in the surrounding local authorities that may impact on Warwickshire.

The minerals plan should include a Green infrastructure (GI) strategy, which may be used to mitigate any potential impacts on European sites identified in the HRA process.

We would advise that a buffer of 15km around the boundary of Warwickshire also sounds appropriate.

Kind regards

Kayleigh

Kayleigh Cheese

Planning Adviser

Sustainable Development Team

South Mercia Area

Natural England
Block B, Government Buildings
Whittington Road
Worcester, WR5 2LQ

0300 060 1411

www.gov.uk/natural-england

2.1.3. Telephone conversation with Sadie Hobson, River Mease Responsible Officer

Record of a telephone conversation between Sadie Hobson of Natural England (responsible officer for the River Mease SAC) and Louise Mapstone on 26.08.15 13:30.

Sadie confirmed more supplementary and detailed information in relation to the River Mease SAC was in development and is due to be published by Natural England on the .gov.uk website by March 2016.

2.2. Environment Agency Correspondence

Warwickshire County Council
Department Of Planning Transport & Economic Strategy
PO Box 43
Warwick
Warwickshire
CV34 4SX

Our ref: UT/2008/104606/OR-03/PO1-L01
Your ref:

Date: 09 September 2015

Dear Madam

HABITAT REGULATIONS ASSESSMENT FOR WARWICKSHIRE MINERALS PLAN

Thank you for your recent enquiry in relation to the above document.

With reference to the potentially sensitive receptors, we only consider that Ensors Pool and The River Mease catchment has the potential to be impacted by the proposed minerals sites.

Looking at the 30 potential site options, there are only 2 that are in close enough proximity to impact the sensitive receptors, so only these have been looked at in further detail. These are the Polesworth Site on the River Mease Catchment and Burton Hastings on Ensors Pool.

Polesworth and the River Mease
Upon closer inspection, the potential site at Polesworth drains into the River Anker catchment, running west towards Tamworth initially, instead of north to the River Mease. The Anker then joins the River Tame and finally the Trent, just upstream of the River Mease confluence with the River Trent.

Burton Hastings and Ensors Pool
Ensors Pool lies approximately 7km west of the potential site at Burton Hastings. It is again in close proximity to the headwaters of the River Anker, but it does not run closely enough to Ensor's Pool to have any effect on it. Our Groundwater Team have reviewed the potential for Hydrogeological linkages between the quarry option and the pool and have found that there is no potential for impact upon Ensors Pool from the Burton Hastings site due to the underlying geology being completely different in the two locations.

Environment Agency
9, Sentinel House Wellington Crescent, Fradley Park, Lichfield, WS13 8RR.
Customer services line: 03708 506 506
www.gov.uk/environment-agency
Cont/d..

However, we note that the 9 preferred sites do not include either location and therefore we are unlikely to have any further comments to make at any later stage of this particular process.

We are not aware of any plans or programmes that need to be considered as part of this assessment.

Yours faithfully

Mr Martin Ross
Planning Specialist

Direct dial 01543 405047
Direct e-mail martin.ross@environment-agency.gov.uk

End 2

Appendix 3: Summary of Former Detailed Conservation Objectives and Targets

Below is a summary of the former detailed Conservation Objectives and Targets for both Ensor's Pool SAC (dated 2008) and River Mease SAC (dated 2012) as provided by Natural England.

Ensor's Pool – Summary of Detailed Conservation Objectives and Targets dated 2008

- To maintain the designated habitats in favourable condition, which is defined in part in relation to a balance of habitat extent (extent attribute). Favourable condition is defined at this site in terms of the following site-specific standards: On this site favourable condition requires the maintenance of the extent of each designated habitat type. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent. The estimated extent in 2008 was 1.89 ha of Standing Open Water. The site specific target is to have no artificial reduction in the wetted area.
- To maintain the native crayfish population at Ensor's Pool SSSI in favourable condition with reference to the following on-site specific standards. These include ensuring the population of native white-clawed crayfish is at least moderately high abundance, an absence of individuals infected with crayfish plague and porcelain disease (Thelohaniasis) should not affect more than 10% of the population.
- To maintain the standing open water habitat that supports the native crayfish at Ensor's Pool in favourable condition. Favourable condition of the supporting habitat is defined at this site in terms of the following site-specific standards. Biological Water Quality should be equivalent to Biological GQA Class b and should be equivalent to at least Chemical GQA Class: B. The extent and diversity of bankside refuges should be maintained. Overhanging vegetation should be present intermittently along the east, north and west banks throughout the year. This should cover 60% of the bank length, distributed in patches along the bank. The southern bank is open grassland. A fringe of marginal vegetation 1-4m wide should be present along at least 10% of the bank sides and submerged macrophytes should cover 10 to 20% of the pool from June to September. The extent and diversity of the site's substrates should be maintained and non-native crayfish species should be absent from the waterbody and their catchments.

River Mease SAC – Summary of Detailed Conservation Objectives and Targets dated 2012

- To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents. On this site favourable condition requires the maintenance of the extent of each habitat type. In this instance the habitat features is Rivers and streams and the estimated extent in 2012 was 22.87ha. The target is to have no reduction in area and any consequent fragmentation without prior consent.
- To maintain the designated species in favourable condition. This is defined at this site in terms of requiring the maintenance of the population of each designated species or assemblage. Species or assemblage present include: bullhead, spined loach, otter, white-clawed crayfish.
- Specific Targets of species are as follows:
- Bullhead
  - No reduction in densities from existing levels (no less than 0.5m -2 in lowland rivers)
  - Young –of-year fish should occur at densities equal to adulates
  - Four age classes with 0+ individuals at least 40% of population
  - Largest females attain a fork length > 75mm
  - Species should be present in all suitable reaches. As a minimum no decline in distribution from current.
- Spined loach
  - At least three year-classes should be present at significant densities. At least 50% of the population should consist of 0+ fish
  - Largest females attain a fork length of > 85mm
- Otter
  - Otters present on site and the population maintained or increasing
- White-clawed crayfish
  - Population at least moderate abundance
  - Berried females should be present during the period November to April
  - Porcelain disease (Thelohaniasis) should not affect > 10% population
  - Absence of individuals infected with crayfish plague

- To maintain Rivers and Streams in the River Mease in favourable condition. At this site favourable condition relates to site-specific standards and a number of targets have been set that apply to the river and marginal vegetation only. A summary of the targets are provided below
- Siltation: No excessive siltation. Maximum silt content <20% in top 10cm of mid-channel gravels. Channel should be dominated by clean gravels. For spined loach sand fractions in finer substrates should reach at least 20% sand and no more than 40% silt. For bullhead no excessive siltation on the surfaces of coarse substrates
- Channel Form: should be generally characteristic of river time with predominately unmodified planform and profile. In-channel natural features present at frequent intervals (such as riffle / pool sequences, pools, slacks and submerged tree root systems).
- A sufficient proportion of all aquatic macrophytes should be allowed to reproduce in suitable habitat, unaffected by river management practices. Ranunculus should be able to flower and set seed.
- Blanketweeed, epiphytic or other algae, *Potamogeton pectinatus* or *Zannichellia palustris*: cover values over 25% should be considered unfavourable and should trigger further investigation. Cover values should not increase significantly from an established baseline.
- There should be no impact on native biota from alien or introduced macrophyte species and these species should not be present at levels likely to be detrimental to the characteristic biological community.
- No artificial barriers should be installed that significantly impact migratory species from essential life-cycle movements
- Species Composition: At least 60% of species with abundance V or IV in the constancy table should be present AND at least 25% of specie with abundance III should be present. Loss of Species: 60% of species with cover of over 1 in the baselines should be at least present along with dominant species in the baseline survey. Abundant species: At least 25-35% of species recorded as dominant in baseline survey should still be dominant.
- There should be no artificial release of fish unless agreed this is in the interests of the population and only with local stock. Any fish introductions should not interfere with the river to support self-sustaining and healthy populations of characteristic species
- Targets for EA standard protocols include the following: Biological GQA: Class A or B. Chemical GQA: Class A or B. Un-ionised ammonia ,0.021 mg L-1 as a 95-percentile. Suspended solids: No unnaturally high loads, Spined Loach and bullhead: 25mg; /litre annually. Orthophosphate levels: 0.06mg/litre as an annual mean.
- Bank and Riparian zone vegetation structure should be near-natural. Woody debris removal should be minimised and restricted to essential activities such as flood defence. Weed cutting should be limited to nor more than half of the channel width.
- Maintain the characteristic physical features of the river channel, banks and riparian zone
- Non-native crayfish should be absent and if present, measures taken to control numbers
- For otters: Fish biomass should stay within expected natural fluctuations. No increase in pollutants potentially toxic to otters. Otter populations not be significantly impacted by human induced kills. No significant change to river or bankside usage. No significant development. No overall permanent decrease
- Flow regime should be characteristic of the river. Levels of abstraction should not exceed the generic thresholds laid down for moderately sensitive SSSI rives by national guidance.

Appendix 4: Key to Operations Likely to Damage the Special Interest of the Site

Operations Likely to Damage the Special Interest of the Site (OLDSIS) considered relevant to the Warwickshire Minerals Plan as per Table 3.

Reference Number	Type of Operation
7	Dumping, storage, spreading or discharging of any materials or substances (including effluent disposal) (N.B Abstractions and discharges, and certain alterations of water levels, are subject to regulation by the Environment Agency through byelaws, licences and consents.)
9	The release into the site of any wild, feral, captive bred or domestic animal (includes any mammal, reptile, bird, fish or invertebrate), plant, seed or micro-organism (including genetically modified organisms).
12	The introduction of tree and/or woodland management and changes in tree and/or woodland management including planting
13a	The introduction of drainage, including the use of mole, tile, tunnel or other artificial drains
13b	Modification of the structure of watercourses (rivers, streams, springs, meanders, mill leats, backwater channels, ditches, dykes and drains), including their banks and beds, by means such as re-alignment, infilling, damming, weir and sluice installation and repair, re-grading, revetment, sheet piling and narrowing.
13c (Ensor's Pool)	Management of aquatic and bank vegetation for drainage purposes
13c (River Mease)	Dredging of, and damage or disturbance to the river bed
14 (Ensor's Pool)	The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
14 (River Mease)	Water impoundment, storage and alterations to water levels and tables. Abstraction from surface and ground water bodies and water utilisation including irrigation flooding (N.B Abstractions and discharges, and certain alterations of water levels, are subject to regulation by the Environment Agency through byelaws, licences and consents.)
15 (Ensor's Pool)	Infilling of ditches, drains or pools
15 (River Mease)	Excavation, widening or infilling of ditches, ponds, pools, meanders, mill leats, marshes and pits.
20 (Ensor's Pool)	Extraction of minerals, including topsoil, subsoil and marl where possible
20 (River	Extraction of minerals, including peat, shingle, sand and gravel, topsoil or

Mease)	subsoil.
21	Construction, re-routing, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks (other than the repair of existing ones), and the laying maintenance or removal of pipelines and cables, above or below ground
22	Storage of materials
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling

Appendix 5: Template for recording the conclusion of the Habitat Regulations Assessment

Extract from the HRA Handbook 2013

RECORD FOR A PLAN WHICH WOULD NOT BE LIKELY TO HAVE A SIGNIFICANT EFFECT ON ANY EUROPEAN SITE, EITHER ALONE OR IN COMBINATION WITH ANY OTHER PLAN OR PROJECT

Introduction and conclusion of the assessment

The [*enter title of plan*] was considered in light of the assessment requirements of regulation 61 of the Conservation of Habitats and Species Regulations 2010 by [*enter name of plan-making body*] which is the competent authority responsible for adopting the plan and any assessment of it required by the Regulations.

Having carried out a 'screening' assessment of the plan, the competent authority has concluded that the plan would not be likely to have a significant effect on any European site, either alone or in combination with any other plans or projects (in light of the definition of these terms in the 'Waddenzee' ruling of the European Court of Justice Case C – 127/02) and an appropriate assessment is not therefore required.

[*Enter name of SNCB*] was consulted on this conclusion and has [*agreed / disagreed*]. Any relevant written responses are appended and referred to below.

Information used for the assessment

A copy of the list used to scan for and select European sites potentially affected by the plan is appended as [*Enter an appropriate reference to a scanning and site selection list based on that given as an example in Figure F.4.4 in the Handbook*]

A summary of the information gathered for the assessment is presented in the Information Required for Assessment table, which is appended as [*Enter an appropriate reference to a table or schedule based on that given as an example in Figure D.1.1 in the Handbook*].

The screening of the plan

A summary of the outcomes of the screening process is given in the screening schedule below (and re-screening schedule where relevant), which is appended as [*Enter appropriate reference to a schedule based on those given as examples in F.6 of the Handbook*]

Mitigation measures

In reaching the conclusion of the assessment the competent authority took the following mitigation measures into account:

[*Enter list which could be based on F.7 of the Handbook, or refer to appended document*]

Assumptions and limitations

The screening conclusion necessarily relies on some assumptions and it was inevitably subject to some limitations. Most of the assumptions and limitations would not affect the conclusion but the following points are recorded in order to ensure that the basis of the assessment is clear.

[Enter list of assumptions and limitations that have the potential to affect the assessment conclusions if circumstances materially change]

References and reports

In reaching the conclusion of the assessment the competent authority took the following documents into account:

[*Enter list of references and / or links to any supporting documentation or reports with dates as appropriate*]

Further supplementary information [*is not required / is appended*]

Dated: [*enter a date*]

Copy sent to [*select appropriate body*] on [*enter a date*]