

**Appendix 6: Other Plans and Projects Considered for In-Combination Effects**

Plan or project	Date of Adoption	Does it allocate sites?	International sites initially screened in to HRA by both the other LP/Project and Shropshire DLP	Shropshire DLP Identified in-combination effects
Telford & Wrekin Local Plan 2011-2031	11 January 2018	Yes	<p><b>Cannock Chase SAC</b> – NLSE alone or in combination, distance and policies.</p> <p><b>Midland Meres and Mosses Ramsar Site Phase 1 – Berrington Pool, Bomere and Shomere Pools</b> NLSE alone or in combination.</p> <p><b>Midland Meres and Mosses Ramsar Site Phase 2 – Aqualate Mere, Hencott Pool and Cop Mere</b></p> <p><b>Mottey Meadows SAC</b> NLSE alone or in combination for recreation</p> <p><b>Severn Estuary SAC</b></p> <p><b>Severn Estuary Ramsar</b></p> <p><b>Severn Estuary SPA</b></p> <p><b>Stiperstones</b> screened out as &gt;20km</p> <p>Concludes NLSE alone or in-combination through increased diffuse atmospheric pollution (policy wording).</p> <p>Overall conclusion NLSE alone or in combination.</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes see AA</p> <p>Yes see AA</p> <p>Yes see AA</p> <p>No</p>
Herefordshire Local Plan Core Strategy 2011 - 2031	15 October 2015	Yes	<p>In county:</p> <p><b>River Clun SAC</b> screened out as downstream of SAC</p> <p><b>Downton Gorge SAC</b></p> <p>Outside boundary:</p> <p><b>Rhosgoch SAC,</b></p> <p><b>Severn SAC, SPA and Ramsar.</b></p> <p>Identified potential for significant in-combination effects with a number of plans on <b>Downton Gorge SAC and Severn Estuary SAC/SPA/Ramsar site</b> as a result of <b>changes to water levels and water quality</b>. These effects were again considered in more detail at the AA stage and it was concluded that the mitigation provided by Pre-Submission policies and current regulatory processes (EA Review of Consents), <b>the SWDP will not have adverse in combination effects on the integrity of the identified European sites through reduced water levels or water quality.</b></p>	<p>No</p> <p>No</p> <p>No</p> <p>Yes see AA</p>

Cheshire West and Chester Local Plan (Parts one and two)	18 July 2019	Yes	<p><b>Berwyn and South Clwyd Mountains SAC</b>, Ruled out diffuse air pollution</p> <p><b>River Dee and Bala Lake SAC</b> – HRA of LP part 1 HRA screened out recreational pressure, water availability and reduced air quality. AA It is concluded that the Local Plan (Part Two) will not lead to adverse effects on the integrity of the River Dee and Bala Lake SAC, either alone or ‘in combination’ with other plans and projects through reduced water quality. The HRA can therefore conclude that the Cheshire West and Chester Local Plan Part Two would not lead to adverse effects on the integrity of the Berwyn and South Clwyd Mountains SAC.</p>	No Yes see AA
Local Plan Strategy 2010-2030  Site Allocations and Development Policies Document	27 July 2017  Draft published 19 August 2019	Yes	<p><b>West Midlands Mosses SAC (Wybunbury Moss) LSE</b> Recreation</p> <p><b>Brown Moss SAC</b> NLSE alone or in-combination due to distance and no hydrological connection, nearest site allocation is 8km</p> <p><b>Fenn’s, Whixall, Bettisford, Wem and Cadney Mosses SAC and Ramsar</b> – 9km no LSE due to distance for recreation or no hydrological connection. Nearest site allocation proposed 12.2km plus lack of hydrological connectivity</p> <p><b>River Dee and Bala Lake SAC</b> – 18km away and no hydrological connections to any watercourses that could be affected by development. Closest allocation being considered is more than 14.7 km away NLSE but new development could lead to an increased demand for water. LSE In-comb at AA</p> <p><b>Oakhanger Moss</b> – LSE changes in water quantity/quality due to proximity of development. Airborne pollution including increased use of M6, recreation no integrity effect due to mitigation policies.</p> <p><b>Midland Meres and Mosses Phase 1</b> <b>Quoisley Mere</b> no hydrological LSE No road impacts due to DMRB after 50m emissions very low. NLSE</p> <p><b>Wybunbury Moss</b> LSE for recreation. Traffic emissions screened out on distance. AA states no adverse effect on integrity due to recreation and general policies.</p> <p><b>Midland Meres and Mosses Phase 2</b> <b>Oss Mere</b> – NLSE potential nearest allocation is over 6.4km <b>Chapel Mere</b> NLSE at over 5km</p>	No No No Yes see AA No No No No

Stoke-on-Trent and Newcastle-under-Lyme Draft Joint Local Plan- Part One (Strategies and Policies)	Jan 2020	No	<p><b>Midland Meres and Mosses Phase 1 and 2 Ramsar</b>  <b>Betley Mere,</b>  <b>Oakhanger Moss,</b>  <b>Black Fir and Cranberry Bog</b> (close to or in Cheshire East)  <b>Wybunbury Moss</b> over 4.5km,  <b>Oss Mere</b> and  <b>Aqualate Mere</b> both &gt;11km from boundary,  <b>Oakhanger Moss</b> &gt;2.5km and  <b>Cop Mere</b> .5.5km  <b>West Midlands Mosses SAC – Wynbunbury Moss</b> &gt;4.5km  <b>Brown Moss SAC</b> – more than 13km from county boundary  <b>Cannock Chase SAC</b> screened out as &gt;20km away.  Due to the distance of the majority of European sites from the DJLP boundary, it is considered unlikely that any adverse in-combination effects would result from the DJLP and the development strategy set out within the Shropshire Council Local Plan.</p>	<p>No  No  No  No  No  No  No  No  No  No</p>
<p>The Plan for Stafford Borough 2011- 2031</p> <p>The Plan for Stafford Borough 2011- 2031 – Part 2</p>	<p>19 June 2014</p> <p>31 January 2017</p>	Yes	<p><b>Cannock Chase SAC</b>  <b>Cop Mere Phase 2 Ramsar</b> no in combination  <b>Aqualate Mere phase 2 Ramsar</b> no in combination  <b>Motey MeadowsSAC</b> No in-combination  <b>Betley Mere</b> &gt;10km No in-combination  <b>Black Firs and Cranberry Bog</b> 10km – No incombination</p>	<p>No  No  No  No  No  No</p>
<p>South Staffordshire Council, Core Strategy</p> <p>South Staffordshire Site Allocations document (SAD)</p>	<p>December 2012</p> <p>11 September 2018</p>	Yes	<p><b>Motey Meadows SAC</b> in SStaffs  <b>Cannock Chase SAC</b>  <b>Fens Pools SAC</b> 2.5km east in Dudley  <b>Midland Meres and Mosses Phase 2</b> 4.2km north (ruled out on distance)  <b>West Midland Mosses SAC and Midland Meres and Mosses phase 1</b> – c. 10km to north east.(ruled out on distance)</p>	<p>No  No  No  No  No</p>

Wyre Forest District Local Plan Review to 2036	28 Feb 2019	Yes	No sites close enough for in combination effects. <b>Fens Pools SAC</b> c. 8.7km from boundary – NLSE alone or in combination.	No
South Worcestershire Development Plan 2006 to 2030  (joint plan for Malvern Hills District Council, Wychavon District Council and Worcester City Council)	25 February 2016	Yes	<b>Downton Gorge SAC</b> <b>Severn Estuary SAC/SPA/Ramsar</b> - The screening concluded that there is uncertainty with regard to the potential for significant in combination effects on Severn Estuary SAC/SPA/Ramsar as a result of changes water levels and changes to water quality. Based on the precautionary approach these issues were progressed through to the AA stage to be considered in more detail. The AA assessed that the mitigation provided by Pre-Submission policies and current regulatory processes (EA Review of Consents) would ensure that the potential impacts of proposed development on the water environment would be minimised. It was concluded that the SWDP will not have adverse in combination effects on the integrity of the identified European sites through reduced water levels or water quality.	No Yes see AA
Wrexham Unitary Development Plan 1996-2011  Local Development Plan 2013-2028	February 2005  Under examination 2020.	Yes	<b>Berwyn SPA and Berwyn and South Clwyd Mountains SAC</b> - The Preferred Strategy will have no likely significant effect upon Berwyn SPA or Berwyn and South Clwyd Mountains SAC from either recreational pressure or increased deposition of air pollutants, either alone or in combination with other plans and projects. <b>River Dee and Bala Lake SAC</b> - potential risks identified as a result of increased water abstraction NLSE Potential effects via wastewater. – LSE see section 5.2 Recommendation 1 clearly identifies the need for a more detailed policy wording to be agreed with NRW and DCWW for inclusion within the final Deposit Plan. <b>Johnstown Newt Sites SAC</b> - preferred strategy proposes an estimated 930 dwellings across the six settlements but does not provide any indication of distribution. It is considered unlikely that all 930 houses will be allocated within Rhosllanerchrugog but is entirely reasonable that an allocation of 300-400 houses <i>might</i> be identified in the later Deposit Plan. LSE <b>Fenn's, Whixall, Bettisford, Wem and Cadney Mosses SAC and Ramsar</b> - the Preferred Strategy does not make any	No  Yes see AA  No  Yes see AA

			<p>provisions for new or improved roads near to these sites and is therefore also considered to have no likely significant effect upon these sites from increased deposition of air pollutants, either alone or in combination with other plans and projects. Only low numbers of windfall sites in vicinity of site so no LSE from recreation.</p> <p><b>Midlands Meres and Mosses (Phase 2) Ramsar (Hanmer Mere)</b> - the Preferred Strategy does not make any provisions for new or improved roads near to these sites and is therefore also considered to have no likely significant effect upon these sites from increased deposition of air pollutants, either alone or in combination with other plans and projects.</p>	No
Powys Local Development Plan 2011-2026	April 2018	Yes	<p><b>Montgomery Canal SAC</b> only one listed as in-combination with Shropshire LDF. Close to site allocations – <i>TD3 – Montgomery Canal and Associated Development</i> policy promoting restoration and multifunctional role, including as a site for Nature Conservation.2.5 and 5km buffers, much development within 5km. NLSE due to policy mitigation.</p> <p><b>Granllyn SAC</b> Close to site allocations – mitigation measures proposed.</p> <p><b>Rhos-Goch SAC</b></p> <p><b>Berwyn and South Clwyd Mountains SAC/SPA</b> – small site allocations close by plus potential from other policies.’</p> <p><b>Elenydd SAC</b> – away from any allocated site</p> <p><b>Tanat and Vyrnwy Bat Sites SAC</b> close to site allocations</p> <p><b>Downton Gorge SAC</b></p> <p><b>Johnston Newt Site SAC</b></p> <p><b>River Dee and Bala Lake</b> screened out as separated by watershed.</p> <p><b>River Clun SAC</b> too distant from planning area – screened out</p> <p><b>The Stiperstones and Hollies SAC Site</b> vulnerabilities are largely land management and outside planning area. Screened out.</p> <p><b>Midland Meres and Mosses Ramsar Site</b> too far outside planning area. Screened out.</p>	<p>Yes see AA</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes see AA</p> <p>No</p>
Shropshire North West Relief Road			<p>Project in development and supported but not allocated by Shropshire Council (Settlement Policy S16.1). <b>Midland Meres and Mosses Ramsar Site Phase 2 - Hencott Pool</b> lies to the north of the proposed route but currently at &gt; 200m away.</p>	No.

			Project level HRA currently being researched before submission of planning application.	
Range of water infrastructure and resource related plans			Assessed via the Shropshire Water Cycle Study 2020 – <b>Severn Estuary SAC/SPA and Ramsar Sites</b>	Yes see AA
Montgomery Canal Conservation Management Strategy 2005			<b>Montgomery Canal SAC management plan</b> supported by NRW	Yes see AA.

## **Appendix 7:**

### **SHROPSHIRE COUNCIL**

#### **Site Allocations & Management of Development Plan (SAMDev)**

#### **Pre-Submission Draft (Final Plan)**

#### **Mineral Allocations for the plan period 2012 – 2026**

#### **Habitats Regulations Assessment**

**March 2014**

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

<b>Contents:</b>	<b>Page:</b>
1. Introduction	3
2. Allocated minerals sites in Shropshire <ul style="list-style-type: none"> <li>• <i>History of Mineral Allocations in Shropshire</i></li> <li>• <i>The Mineral Site Allocations in Shropshire for 2012 – 2026</i></li> <li>• <i>Site Information</i></li> </ul>	3
3. Identifying Potential Effect Pathways	5
4. Summary of findings <ul style="list-style-type: none"> <li>• <i>‘Screening out’ of Mineral Allocations from the HRA Process</i></li> <li>• <i>Mineral Allocations which cannot be ‘Screened Out’ of the HRA Process</i></li> </ul>	10
5. Appropriate Assessment of the allocation of Wood Lane North Extension	11
6. Next steps in the Habitats Regulations Assessment process	15
7. Conclusions	15
<b>Figures:</b>	
<b>Tables:</b>	
Table 1: Potential Mineral Site Allocations	4
Table 2: Potential Effect Pathways	5
<b>Appendices:</b>	
Appendix 1: Mineral Allocation Site Maps	17



Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

**1. Introduction**

- 1.1 This HRA Report should be read in conjunction with the Core Strategy Development Plan Document: Habitat Regulation Assessment, Screening Report (March 2009), the Core Strategy Development Plan Document: Habitat Regulation Assessment, Stage 2 Report (February 2010) and the Site Allocations and Management of Development (SAMDev) Plan HRA FOR Site Allocations and Development Management Policies (February 2014).
- 1.2 The aim of this HRA Report is to assess the possible effect pathways between the allocated mineral sites in MD5a and b of the SAMDev Plan and Natura 2000 sites.
- 1.3 The HRA Screening Report (March 2009) and the HRA Stage 2 Report (February 2010) identified the Natura 2000 Designated Sites in and around Shropshire which could potentially be impacted by proposed plans or projects in the county. That information has been updated in Appendix 1 of the SAMDev allocations HRA (February 2014).

**2. Allocated minerals sites in Shropshire**

***History of Mineral Allocations in Shropshire***

- 2.1 Shropshire Council intends to allocate a number of mineral sites to provide ongoing supplies of sands and gravels for the Core Strategy plan period 2012 – 2026.
- 2.2 A call for potential sand and gravel sites was made in 2009 and the sites assessed here as allocations come from those submitted by mineral operators, land owners and agent in response to that call.
- 2.3 These allocations have been previously assessed in a document titled Assessing Sand and Gravel Sites for Allocation in the Shropshire Sub Region by Entec (June 2010)<sup>1</sup>.
- 2.4 The assessment document by Entec (2010) provides background information on each of the allocations. The document assessed 18 sites from which 3 have been drawn forward as allocations for Shropshire.
- 2.5 The assessment document by Entec (2010) does assess the land surrounding the potential allocations including identifying any designated sites in the surrounding area. It does not, however, identify potential effect pathways by which the potential allocations might impact upon those designated sites and does not go into the detail required for the

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<sup>1</sup> Shropshire Council and Telford and Wrekin Council. Assessing Sand and Gravel Sites for Allocation in the Shropshire Sub Region: Site Assessment Report by Entec UK Ltd, June 2010.

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

HRA process. This HRA report relies on the information gathered by the site assessment document by Entec (2010).

***The three mineral site allocations in Shropshire for 2012 - 2026***

- 2.6 There are only 3 allocations in Shropshire for 2012 – 2026. These 3 sites are sufficient to address the sand and gravel needs of Shropshire for that period along with the sites which currently have planning permission.

**Table 1: Potential mineral site allocations**

<b>Site Name</b>	<b>Grid Reference</b>
Gonsal: North and South extensions (Condover)	SJ 4847 0550
Morville extension	SO 6828 9333
Wood Lane North extension (Ellesmere)	SJ 4241 3317

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

**Site Information**

2.7 Full details of the potential allocated sites can be found in the document Assessing Sand and Gravel Sites for Allocation in the Shropshire Sub Region by Entec (June 2010)<sup>2</sup> in Figures 4.1 – 4.7 and Appendix A of that report.

**3. Identifying Potential Effect Pathways**

- 3.1 The particular vulnerabilities of each Natura 2000 Site in and around Shropshire, along with their reasons for designation are set out in the Core Strategy Development Plan Document: Habitat Regulation Assessment, Screening Report (March 2009) and the Core Strategy Development Plan Document: Habitat Regulation Assessment, Stage 2 Report (February 2010).
- 3.2 Table 2 describes the three mineral allocations, identifies any European Designated Sites within 10km and the potential effect pathways by which the proposed allocation could impact upon a European Designated Site.
- 3.3 Potential effect pathways have been identified for the allocated sites. Where no potential effect pathways have been found the sites have been screened out. For sites with potential effect pathways, further information has been sought.

**Table 2: Potential Effect Pathways**

Allocated Site	European Designated Site	Distance	Site Vulnerability	Potential Effect Pathways
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<sup>2</sup> Shropshire Council and Telford and Wrekin Council. Assessing Sand and Gravel Sites for Allocation in the Shropshire Sub Region: Site Assessment Report by Entec UK Ltd, June 2010.

Shropshire Site Allocations & Management of Development Plan: Mineral  
 Allocations for the plan period 2012 – 2026  
 Habitats Regulations Assessment – March 2014

<p>MD5b Gonsal: North and south extensions</p>	<p>Midland Meres &amp; Mosses Ramsar Phase 1 – Bomere, Shomere and Betton Pools</p>	<p>2.3km – 3.6km</p>	<p>Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, &amp; recreational disturbance</p>	<p>Intervening habitat is a mosaic including large areas of farmed land.        There are no surface water connections from Gonsal Quarry to the Ramsar sites. The Quarry is on the far side and downstream of Cound Brook, which runs through the valley between the quarry and the Ramsar Sites.        The nearest point of the northern quarry extension is c. 2.3 km from the catchment of Bomere, Shomere and Betton pools. These sites are on perched water tables. Condover Quarry, which lies immediately adjacent to Bomere and Shomere pools, appears not to have affected water levels in the EU sites. Condover Quarry lies between Bomere Pool and Gonsal Quarry. In view of the above there should be no adverse hydrological effects on Bomere, Shomere or Betton Pools.         There should be no impact from dust from Gonsal Northern and Southern Extensions as they are &gt;1km from the nearest Ramsar Site.         Traffic levels are unlikely to be significantly higher than current levels and the nearest road likely to be used by quarry vehicles is 1km away from the Ramsar site, making traffic emissions unlikely to have a negative effect.        Therefore, no likely significant effect identified.</p>
	<p>Midland Meres &amp; Mosses Ramsar Phase 1 – Berrington Pool</p>	<p>3.7km – 4.7km</p>	<p>Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation and erosion.</p>	<p>- Intervening habitat is a mosaic including large areas of farmed land.        There are no surface water connections from Gonsal Quarry to the Ramsar site. The Quarry is on the far side and downstream of Cound Brook, which runs through the valley between the quarry and the Ramsar Sites.        The nearest point of the surface water catchment for Berrington Pool to the northern extension is 3.2km. In view of the above there</p>

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

				<p>should be no adverse hydrological effects on Bomere, Shomere or Betton Pools.</p> <p>There should be no impact from dust from Gonsal Northern and Southern Extensions as they are &gt;1km from the nearest Ramsar Site.</p> <p>Traffic levels are unlikely to be significantly higher than current levels and the nearest road likely to be used by quarry vehicles is 3.5km away, making traffic emissions unlikely to have a negative effect.</p> <p>Therefore, no likely significant effect identified.</p>
MD5b Gonsal: North and south extensions	The Stiperstones & The Hollies SAC	9.3km	Site sensitive to inappropriate grazing levels & afforestation as well as recreational pressure.	No potential effect pathways identified
MD5b Morville extension	Nearest Natura 2000 site is over 20km away (Berrington Pool)	-	-	No potential effect pathways identified
MD5a Wood Lane North extension	Midland Meres & Mosses Ramsar Phase 1 – White Mere	410m	Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, & recreational disturbance	<p>Potential impacts from dust possible as White Mere lies 410m from the nearest point of the extension. The smallest particles could reach the Mere.</p> <p>There are no hydrological connections as White Mere lies on a perched water table and there are no surface water connections to the extension. In view of the above there should be no adverse hydrological effects on White Mere.</p> <p>Quarry traffic may pass close to White Mere on the busy A528, however recent (2013) road drainage improvements will greatly decrease sediment entering the Mere compared with previous levels.</p>

Shropshire Site Allocations & Management of Development Plan: Mineral  
 Allocations for the plan period 2012 – 2026  
 Habitats Regulations Assessment – March 2014

<p>MD5a Wood Lane North extension</p>	<p>Midland Meres &amp; Mosses Ramsar Phase 2 – Colemere</p>	<p>170m</p>	<p>Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, &amp; recreational disturbance</p>	<p>A drainage ditch runs part way along the northern boundary of the proposed extension and groundwater flows from the proposed extension towards Colemere. Pollution incidents within the extension could adversely affect water quality. Disturbance of the surface and groundwater catchment could adversely affect the water levels. The Shropshire Union Canal and Baysil Wood lie immediately to the north of this potential mineral allocation and connect to the designated site at Colemere.</p> <p>Further consideration of hydrological information and an appropriate assessment will be required.</p> <p>Potential impacts from particulate matter possible as Colemere lies only 170m from the nearest point of the extension.</p>
	<p>Midland Meres &amp; Mosses Ramsar Phase 1 – Clarepool Moss</p>	<p>1km</p>	<p>Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, &amp; recreational disturbance</p>	<p>There should be no impact from dust from the North Extension as it is 1km from Clarepool Moss.</p> <p>There are no surface water connections from Wood Lane North Extension to Clarepool Moss. Groundwater appears to flow towards Colemere and the quarry extension is beyond Colemere. In view of the above there should be no adverse hydrological effects on Clarepool Moss.</p>
	<p>West Midland Mosses SAC - Clarepool Moss</p>	<p>1km</p>	<p>Habitats sensitive to scrub encroachment and recreational disturbance.</p>	<p>There should be no impact from dust from the North Extension as it is 1km from Clarepool Moss.</p> <p>There are no surface water connections from Wood Lane North Extension to Clarepool Moss. Groundwater appears to flow towards Colemere and the quarry extension is beyond Colemere. In view of the above there should be no adverse hydrological effects on Clarepool Moss.</p> <p>The north extension will not adversely affect recreational pressure on Clarepool Moss.</p>

Shropshire Site Allocations & Management of Development Plan: Mineral  
 Allocations for the plan period 2012 – 2026  
 Habitats Regulations Assessment – March 2014

	Midland Meres & Mosses Ramsar Phase 2 – Sweat Mere & Crose Mere	2.1km	Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, & recreational disturbance	<p>Intervening habitat is a mosaic including large areas of farmed land.</p> <p>There should be no impact from dust from the North Extension as it is &gt;1km from the Meres.</p> <p>In same surface water catchment as the quarry extension but water apparently drains from higher ground to south and drains from these sites eastwards. In view of the above there should be no adverse hydrological effects on Sweat Mere and Crose Mere.</p>
	Midland Meres & Mosses Ramsar Phase 2 – Brownheath Moss	4.3km	Site sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, & recreational disturbance	<p>Intervening habitat is a mosaic including large areas of farmed land.</p> <p>Impacts not anticipated as Brownheath Moss is in a separate surface water catchment.</p> <p>Dust will not adversely affect the site as it is &gt;1km away.</p>
	Midland Meres & Mosses Ramsar Phase 2 – Fenn's, Whixall, Bettiesfield, Cadney & Wem Mosses	4.2km	Habitats present are sensitive to alterations in water level, especially lowering of water table. Some evidence of siltation having an adverse effect. Above critical load for ammonia, emitted by poultry farms, agriculture and industry	<p>Environmental Network formed by the Shropshire Union Canal and associated habitats links this potential mineral allocation to the designated site. However, the proposed quarry extension is not in the same catchment as the Mosses. The Shropshire Union Canal is clay lined and effectively isolated from the catchment, other than it discharges into Colemere. In view of the above there should be no adverse hydrological effects on Fenn's, Whixall, Bettiesfield, Cadney &amp; Wem Mosses.</p> <p>There should be no impact from dust from the North Extension as it is &gt;1km from the Mosses.</p> <p>No other impacts anticipated at this distance</p>

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

	Midland Meres & Mosses Ramsar Phase 2 – Hanmer Mere	6km	Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, & recreational disturbance	Intervening habitat is a mosaic including large areas of farmed land Impacts not anticipated– Hanmer Mere is not in the same catchment as the proposed extension.
	Midland Meres & Mosses Ramsar Phase 2 – Llyn Bedydd	7km	Sites sensitive to invasive species, water quality issues, nutrient enrichment, sedimentation, erosion, & recreational disturbance	Intervening habitat is a mosaic including large areas of farmed land Impacts not anticipated– Llyn Bedydd is not in the same catchment.
	River Dee and Bala Lake SAC	9.7km	Habitats and species sensitive to water quality, quantity and flow rate including siltation	No surface water connections. No adverse effects anticipated at this distance

#### 4. Summary of findings

##### ***‘Screening out’ of Potential Mineral Allocations from the HRA Process***

4.1 Any potential mineral allocations where no Natura 2000 Sites are present within 10km have been ‘screened out’ of the HRA process at this stage since it can be concluded that **the allocation of these sites for sand and gravel quarrying would not have a significant effect on the integrity of any Natura 2000 Site.**

4.2 The following site has been screened out due to being over 10km from the nearest Natura 2000 Site:

- Morville extension

4.3 Mineral allocations where Natura 2000 Sites are present within 10km but where no potential effect pathway has been identified by which the designated site might be impacted by quarrying in that location can also be ‘screened out’ of the HRA process at this stage. The following mineral allocation has been screened out as there is no likely significant effect on Natura 2000 Sites. This is:

- Gonsal North and South Extensions

##### ***Mineral Allocations which cannot be ‘Screened Out’ of the HRA Process***

4.4 There is one mineral allocation, Wood Lane North Extension, which cannot be ‘screened out’ of the HRA process at this stage and either



Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

requires counter-acting measures and then re-screening or needs to go forward to Appropriate Assessment.

- 4.5 The potential effect pathways by which this mineral allocation has the potential to impact upon a Natura 2000 Site relate particularly to impacts on the water catchment water quality and air borne dust.

**5. Likely significant effects of the allocation of Wood Lane North Extension on Natura 2000 sites**

Potential effect pathways have been identified for two Natura 2000 (Ramsar) Sites – White Mere and Colemere. The key effect pathways are:

- a) disturbance of ground or surface water flows leading to reduced or raised water levels in the Ramsar Sites,
- b) reduced water quality due to pollution incidents in the proposed extension,
- c) increased sedimentation in water bodies and,
- d) adverse effects of dust.

The SAMDev Plan for site allocations HRA (Feb 2014) contains a map showing Natura 2000 sites in the Ellesmere area (Map 2).

**5.1 White Mere**

**a) Water levels.** The North Extension lies 410m to the east of White Mere. Natural England surface water catchment data shows the Wood Lane Quarry and proposed North Extension within the same catchment as White Mere. However, more detailed information is provided in a report produced by the TG Group titled 'Wood Lane Zone II Quarry & Landfill, Ellesmere, Shropshire, Environmental Impact Assessment of Time Extension, Geology, Hydrogeology & Hydrology' December 2010, prepared by TerraConsult, submitted with planning application reference 10/05561/EIA.

The Upper Boulder clay caps the higher ground in a 'crescent' to the south, west and north of the Wood Lane quarry complex. White Mere is situated on the clay to the north-west of the site. The quarry, Cole Mere and the land to the east and south east of the site are on ground underlain by fluvio-glacial deposits (sands, gravels, silts and clays);

The relationship of White Mere to the local surface and groundwater systems has been investigated by the EA (2003). White Mere appears to be hydrologically isolated from local groundwater and surface water and is perched on a layer of

boulder clay within its own limited topographical catchment. The EA study concluded that the inflows to White Mere are entirely dependent on local runoff from a small catchment and that the discharges from the mere are by evaporation and seepages into the ground water system. There are no watercourses feeding into or draining from White Mere (other than the overflow when water levels are high enough, to the Shropshire Union Canal). Hence White Mere appears to be hydrologically isolated from the North Extension.

**b) Reduced water quality in White Mere.** As White Mere is hydrologically isolated from the proposed extension, pollution incidents such as spillage of oil or chemicals should not affect water quality.

**c) Increased sedimentation in White Mere.** The entrance to the Wood Lane complex lies around 300m south of White Mere on the busy A528. Throughout the many years of quarry activity, mitigation measures to prevent sediment being taken out on to the road by quarry traffic have been in place. The LPA would expect best practice to be followed in future under policy MD5 and MD17. Sediment entering White Mere from the A528 has been recognised as a problem by Natural England and Shropshire Council's Highways section. In 2013, under a joint project, SC Highways have installed two new sediment traps collecting the road run-off adjacent to White Mere and NE have produced wetland SUDs features on the bank of the Mere to provide additional filtering. These additional improvements should reduce the sediment levels entering the Ramsar Site from the A528. Extraction of mineral from the proposed extension would not be expected to commence until extraction from the existing quarry site has ceased. Therefore an increase in traffic movements would not be expected.

**d) Adverse effects of dust.** White Mere is just over 410m from the closest corner of the North Extension site, separated by farm land and previously quarried areas. Minerals Policy Statement 2 (now replaced by the NPPF) stated that:

'Effects of dust will depend on the prevailing wind direction and the transport distance is related to particle size;

- Large particles (>30 micrometres) will mostly deposit within 100m of the source.
- Intermediate particles (10-30 micrometres) are likely to travel up to 200-500m
- Smaller particles (<10 micrometres) can travel up to 1km from the source.'

The wind rose from Shawbury indicates that the prevailing wind is south-westerly and so would tend to blow dust away from White

Mere. It is likely at over 400m, that only the smallest particles could reach White Mere. Dust emissions are already controlled on the site for the existing quarry and best practice measures will be required at the planning application stage under MD5 and MD17.

## 5.2 Cole Mere

**a) Water levels.** The North Extension lies at its closest point 170m to the west of Colemere. Natural England's surface water catchment data shows the Wood Lane Quarry and proposed North Extension within the same catchment as Colemere. However, more detailed information is provided in the report produced by the TG Group titled 'Wood Lane Zone II Quarry & Landfill, Ellesmere, Shropshire, Environmental Impact Assessment of Time Extension, Geology, Hydrogeology & Hydrology' December 2010, prepared by TerraConsult, submitted with planning application reference 10/05561/EIA.

The surface water catchment for Colemere was estimated from OS mapping and extends to about 4km<sup>2</sup> of which about 0.3km<sup>2</sup> lies in the Wood Lane complex. A minor stream enters Colemere at its north-western corner in the vicinity of Little Mill. A water course carries a discharge from the mere and is the source of the River Roden. There is also an inflow from the Shropshire Union Canal to Colemere. There are no natural surface water features within the Wood Lane Complex. Neither are there any surface water drains or streams linking the complex to any surface water body outside of it. However, a ditch follows the line of the eastern half of the northern boundary, and it is unclear if this is on or outside the boundary. The ditch carries water south-east down a small valley away from Colemere. Surface water within the base of the active quarry is a result of groundwater ingress into the workings. During working, water is abstracted and recharged to ground water via lagoons elsewhere in the quarry. The groundwater levels across the site, including the proposed extension, are monitored in a number of piezometers and evidence from these has informed the following:

The groundwater body is contained within the glacial and more recent drift deposits. The area in which the quarry complex is located is on or close to the topographic divide between the Roden and Perry river catchments and consequently there is likely to be groundwater flows broadly towards both these water courses. However, the quarry complex appears to be located just inside the catchment area of the River Roden and consequently the general flow direction from it is anticipated to be towards the east (i.e. towards Colemere). The flow is in the direction of the hydraulic gradients that generally slope towards surface watercourses. The quarry complex is thus in a recharge area with

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

the streams and meres (except White Mere) being in discharge zones.

The direct effect of de-watering on the water-table is localised and short-term being limited to the period when digging extends below the water-table. No significant losses occur during this operation. It is proposed that the depth of working in the extension area can be limited to above the water table eliminating the need for de-watering.

In view of the above, following more detailed information and analysis of water movements to inform any necessary avoidance or mitigation measures at the planning application stage, impacts on water levels should be avoided.

**b) Reduced water quality in Cole Mere.** Groundwater quality is monitored within a number of the perimeter monitoring boreholes around the site at a frequency and for contaminant species agreed by the Environment Agency and specified in the site Environmental Permit. The continuation of landfill operations in the Wood Lane complex received an Environmental Permit in 2009, following a detailed HRA.

For operations on site, pollution prevention measures are already in operation and these would be expected in future to continue to follow current best practice. For any works proposed in the Northern Extension a comprehensive management plan to prevent pollution of the groundwater would be required under policies MD5 and MD17 for the planning application.

**c) Increased sedimentation in Colemere.** As there are no surface water courses connecting the extension to Colemere, no sedimentation is anticipated.

**d) Adverse effects of dust.** At its closest point, the proposed Northern Extension is only 170m from Colemere Ramsar Site. Using the figures quoted above, there is a possibility that intermediate and small particles of dust from the workings could reach Colemere. As the prevailing wind is south-westerly, much of the dust would either spread north east of Colemere or fall on its westernmost end. However, there is a belt of trees to the north of the Extension, before the Ramsar is reached.

Past and current quarrying operations have been implemented using mitigation methods for dust. Under Development Management policies MD5 and MD17 a detailed and stringent mitigation management plan would be required at the planning application stage.

**5.3 Conclusion of Habitats Regulations Assessment for the Wood Land site allocation**

Under Development Management policies MD5 and MD17, detailed information and analysis of water movements, and stringent mitigation management plans will be required at the planning application stage to remove any adverse impacts from dust, sediment and changes in water levels or quality. An Appropriate Assessment will be required at the planning application stage and under policy MD5 and National Planning Policy Framework 119, permission will not be granted if it cannot be ascertained that the development will not adversely affect the integrity of Natura 2000 Sites. Therefore it can be concluded that sufficient controls are in place within the SAMDev Plan to ensure that there will be no likely significant adverse effects on Natura 2000 sites as a result of the minerals allocations.

**6. Next steps in the Habitats Regulations Assessment process**

- 6.1 Natural England must be formally consulted on Habitats Regulations Assessments of forward plans under the process set out within the Conservation of Species and Habitats Regulations 2010.
- 6.2 This HRA Report and its conclusions can only be adopted by Shropshire Council once Natural England has been formally consulted and their comments received and taken into account.

**7. Conclusions**

- 7.1 Out of the three mineral allocations considered in the Habitats Regulations Assessment Report it can be concluded that 2 will have no likely significant impact on any Natura 2000 site.
- 7.2 For the remaining mineral allocation effect pathways have been identified by which sand and gravel extraction might have the potential to impact upon Natura 2000 sites.
- 7.3 This site is formally allocated within the Site Allocations and Management of Development DPD and it will still need to be subject to a planning application to the Local Planning Authority prior to development commencing.
- 7.4 At the planning application stage the Wood Lane North extension (Ellesmere) will need to be subject to a full Appropriate Assessment under the Habitats Regulations Assessment process set out within the Conservation of Species and Habitats Regulations 2010 and to formal consultation with Natural England.

Shropshire Site Allocations & Management of Development Plan: Mineral  
Allocations for the plan period 2012 – 2026  
Habitats Regulations Assessment – March 2014

- 7.5 Formal allocation of this mineral site which cannot be 'screened out' within the Site Allocations and Management of Development DPD does not reflect a commitment from Shropshire Council to grant planning permission when a planning application is subsequently made. **If it should prove not possible for the developer to show, to the satisfaction of Shropshire Council and Natural England and beyond reasonable scientific doubt, that the proposed quarrying activity would not have an adverse effect on the integrity of any Natura 2000 Site then Shropshire Council will refuse planning permission.**