TELFORD & WREKIN DRAFT LOCAL PLAN

HABITATS REGULATIONS ASSESSMENT SCREENING REPORT

July 2015

HABITATS REGULATIONS ASSESSMENT SCREENING REPORT

Telford & Wrekin Draft Local Plan

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prepared for:	Telford & Wrekin Council	
prepared by:	Alastair Peattie Cheryl Beattie	Enfusion
quality assurance:	Alastair Peattie	Enfusion

enfusion
environmental planning and management for sustainability

Treenwood House
Rowden Lane
Bradford on Avon
BA15 2AU
t: 01225 867112
www.enfusion.co.uk

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1.0 INTRODUCTION

1.1 Telford & Wrekin Council is preparing a Local Plan to guide future development in the Local Authority area. The Local Plan will set out an overall strategy to guide development across the borough in the period up to 2031. It sets out how much new development (land for housing and employment) is needed, and where this development should take place, as well as provides information about the infrastructure (roads, schools, open spaces, etc) needed to support new development.

1.2 Enfusion has been commissioned to progress the Habitats Regulations Assessment (HRA) of the Draft Local Plan on behalf of the Council in their role as the competent authority. At the same time Enfusion was also commissioned to undertake the Sustainability Appraisal (incorporating Strategic Environmental Assessment) of the Draft Local Plan and this work has been undertaken concurrently, with the two processes informing each other as appropriate.

Background

1.3 The HRA process for the plan began in 2012 with a scoping exercise. This information was presented in a Screening Report, which identified eight European sites outside the Plan area that are potentially within the influence of the emerging Local Plan.

1.4 In 2013, the Council produced and published a Shaping Place Strategy & Options Document, which set out a number of options for the overall level and distribution of growth, as well as potential options for policies. Given the early stage in plan-making a high level HRA Screening was carried out in 2013 and identified the potential impacts of some of the development proposed in the Strategy & Options Document. The HRA Screening Report was published alongside the Strategy & Options Document for consultation in June 2013. The screening considered that the while direction of growth was unclear there was the potential for eight European sites to be directly and indirectly affected by the Draft Local Plan. It concluded that all eight European sites should be carried forward to full Appropriate Assessment and that this should be carried out in parallel with the preparation of the Draft Local Plan stage, as there will be more clarity with regard to the level and location of growth. Comments were received from NE and helped to inform the iterative and ongoing HRA process

1.5 Following further technical studies a number of potential site options were presented in the Proposed Housing and Employment Sites (PHES) Document, which published for consultation in May 2014. The Document also proposed an overall level of growth of 20,000 dwellings during the life of the Local Plan. A high level HRA Screening of proposed housing sites was carried out and the assessment concluded that 77 of the 79 proposed housing sites and 46 of the 48 proposed

employment sites are not likely to have significant effects on European sites. The remaining 2 housing and 2 employment sites a likely significant effect could not be ruled out due to lack of information relating to foul water treatment and aerial emissions on the Midland Meres and Mosses Ramsar Phase 2. The screening recommended that the HRA decision for these 4 sites should be passed down to the lower level of plan-making when further detail is available.

Consultation

1.6 The Habitats Regulations require the plan making/competent authority to consult the appropriate nature conservation statutory body. Comments from the statutory nature conservation bodies were received on the HRA Screening of the Shaping Places Strategy & Options Document (June 2013). These comments and any advice provided have been taken forward in the iterative HRA work documented in this report.

1.7 The Habitats Regulations leave consultation with other bodies and the public to the discretion of the plan making authority. Therefore, in addition to the statutory consultation undertaken with the appropriate nature conservation body, this HRA Screening Report Stage 4 is available for wider public consultation alongside the Draft Local Plan.

Purpose & Structure of Report

1.8 This report documents the process and the findings of the HRA screening for the Draft Local Plan. Following this introductory section the document is organised into a further four sections:

- **Section 2** summarises the requirement for HRA and the background to the Draft Local Plan.
- **Section 3** outlines the screening process and the findings of the screening assessment.
- **Section 4** summarises the findings of the HRA and sets out the next steps.

2.0 HABITATS REGULATIONS ASSESSMENT (HRA) AND THE PLAN

Requirement for Habitats Regulations Assessment

2.1 The Conservation of Habitats and Species Regulations 2010 (as amended) [the Habitats Regulations] require that HRA is applied to all statutory land use plans in England and Wales. The aim of the HRA process is to assess the potential effects arising from a plan against the conservation objectives of any site designated for its nature conservation importance.

2.2 The Habitats Regulations transpose the requirements of the European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna [the Habitats Directive] which aims to protect habitats and species of European nature conservation importance. The Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) which are designated under European Directive (2009/147/EC) on the conservation of wild birds [the Birds Directive]. In addition, Government guidance also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance [Ramsar Convention]) are included within the HRA process as required by the Regulations.

2.3 The process of HRA is based on the precautionary principle and evidence should be presented to allow a determination of whether the impacts of a land-use plan, when considered in combination with the effects of other plans and projects against the conservation objectives of a European Site; would adversely affect the integrity of that site. Where effects are considered uncertain, the potential for adverse impacts should be assumed.

Guidance and Good Practice

2.4 The application of HRA to Local Plans has been informed by a number of key guidance and practice documents. Draft guidance for HRA 'Planning for the Protection of European Sites: Appropriate Assessment', was published by the Government (DCLG, 2006) and is based on the European Commission's (2001) guidance for the Appropriate Assessment of Plans. The DCLG guidance recommends three main stages to the HRA process:

- **Stage 1**: Screening for Likely Significant Effect
- **Stage 2:** Appropriate Assessment, Ascertaining Effects on Integrity
- **Stage 3**: Mitigations Measures and Alternatives Assessment.

2.5 If alternative solutions or avoidance/ mitigation measures to remove adverse effects on site integrity cannot be delivered then current guidance recommends an additional stage to consider Imperative Reasons of Overriding Public Interest (IROPI) for why the plan should proceed. For the HRA of land use plans IROPI is only likely to be justified in a very limited set of circumstances and must be accompanied by agreed, deliverable compensation measures for the habitats and species affected. For this reason the IROPI stage is not detailed further in this report.

2.6 More recently Natural England has produced additional, detailed guidance on the HRA of Local Development Documents (Tyldesley, 2009 (as updated)) that complements the DCLG guidance, and builds on assessment experience and relevant court rulings. The guidance: sets out criteria to assist with the screening process; addresses the management of uncertainty in the assessment process; and importantly outlines that for the HRA of plans; ' … what is expected is as rigorous an assessment as can reasonably be undertaken in accordance with the requirements of the Regulations …'.

2.7 The approach taken for the HRA of the Draft Local Plan follows the method set out in formal guidance documents. The key stages of the HRA process overall, and the specific tasks undertaken for each stage are set out in Table 2.1.

Table 2.1: Habitats Regulations Assessment: Key Stages

Stages	Habitats Regulations Assessment
Stage 1: Screening for Likely significant Effects	1. Identify European sites in and around the plan area.
	2. Examine the conservation objectives of each interest feature of the European site(s) potentially affected.
	3. Analyse the policy/ plan and the changes to environmental conditions that may occur as a result of the plan. Consider the extent of the effects on European sites (magnitude, duration, and location) based on best available information.
	4. Examine other plans and programmes that could contribute (cumulatively) to identified impacts/ effects.
	5. Produce screening assessment based on evidence gathered and consult statutory nature conservation body on findings.
	6. If effects are judged likely or uncertainty exists – the precautionary principle applies proceed to **Stage 2.**
Stage 2: Appropriate Assessment	1. Agree scope and method of Appropriate Assessment with statutory nature conservation body.
	2. Collate all relevant information and evaluate potential impacts on site(s) in light of conservation objectives.
Stage 3: Mitigation Measures and Alternatives Assessment	1. Consider how effect on integrity of site(s) could be avoided by changes to plan and the consideration of alternatives (e.g. an alternative policy/ spatial location). Develop mitigation measures (including timescale and mechanisms for delivery).
	2. Prepare HRA/ AA report and consult statutory body.
	3. Finalise HRA/AA report in line with statutory advice to accompany plan for wider consultation.

Shaping Places Draft Local Plan - Key Proposals

Aims & Objectives

2.8 The Draft Local Plan coordinates future development within the administrative boundary of the borough of Telford & Wrekin for the period 2011 to 2031. It replaces the *Core Strategy* (2007) and the policies which were saved from the *Wrekin Local Plan* (2000) and the *Central Telford Area Action Plan* (2011). The Local Plan will set out an overall strategy to guide development across the borough in the period up to 2031. It sets out how much new development (land for housing and employment) is needed and where this development should take place as well as provides information about the infrastructure (roads, schools, open spaces, etc) needed to support new development.

2.9 The aim of the Local Plan is to help sustain and enhance the quality of the borough and the quality of life for those who live and work in and visit the borough. The vision is summarised as follows:

- By 2031, Telford & Wrekin will be a healthier, more prosperous and better connected place than it is today.
- It will have a population of approximately 198,000 people.
- Development and regeneration will be focused in Telford and Newport.
- Communities in the rural area will supported.
- The environment will be protected and improved.
- New development and investment will provide a high quality of life for those who live and work in and visit the area.

2.10 The aims and objectives are an expansion of the vision and provide the basis for the Spatial Strategy and the Detailed Policies. They also respond to the wider strategies and priorities of the Council and its partners such as the Health and Wellbeing Strategy. The Draft Local Plan aims and objectives are set out in the table below.

Table 2.2: Draft Local Plan Aims & Objectives

Economy
Aim 1: Promote prosperity and opportunity for everyone Objectives: 1. Support the delivery of 110 hectares of employment land on a range of sites across the borough; 2. Support and enhance the network of local urban centres in Telford as the focus for local business, shopping, community facilities and residential development well served by public transport, walking and cycling; 3. Consolidate and strengthen Newport's role as a market town; 4. Support and enable the development of rural enterprises; 5. Expand the borough's leisure, tourism and business visitor offer supporting Destination Telford; 6. Support actions which reduce the skills gap between employers and the local workforce; 7. Support measures which reduce youth unemployment.

Housing
Aim 2: Meet local housing needs and aspirations Objectives: 8. Support delivery of 15,000 new dwellings across the whole borough by 2031; 9. Ensure new developments deliver a range of housing types and tenures that meet the needs of specific household groups; 10. Ensure an appropriate proportion of new dwellings are affordable; 11. Improve the quality of new and existing housing; 12. Meet the identified housing needs of gypsies and travellers.
Natural Environment
Aim 3: Harness the borough's natural environment 13. Ensure that green infrastructure is planned, designed and managed to meet site, local and strategic needs including the delivery of fifty new 'Green Guarantee' spaces; 14. Ensure that nationally and locally significant natural landscapes such as the Area of Outstanding Natural Beauty are protected and managed appropriately; 15. Safeguard and enhance the borough's biodiversity.
Community
Aim 4: Promote more socially cohesive, healthy and active communities Objectives: 16. Enable healthier lifestyles and improve the health and wellbeing of the population; 17. Address social and economic deprivation; 18. Enhance the borough's education and training facilities; 19. Support the creation of safe and secure environments; 20. Enable people to live independently for longer; 21. Sustain and enhance the vitality of rural settlements.
Connections
Aim 5: Enhance the infrastructure for improved access and communication Objectives: 22. Support the continued provision of a highly accessible and integrated transport network; 23. Encourage and help enable greater access by non-vehicular means to local green space, services and locations of employment; 24. Enhance broadband and mobile networks across the borough.
Built Environment
Aim 6: Value the cultural and heritage assets Objectives: 25. Achieve high quality urban design which responds to local context and which provides opportunities for innovation; 26. Safeguard the character and setting of the borough's built and natural heritage, including Ironbridge Gorge World Heritage Site and the Wrekin; 27. Protect and enhance the borough's local distinctiveness.
Environmental Resources
Aim 7: Reduce the environmental impact of new development Objectives: 28. Promote solutions that reduce energy demands on non-renewable energy sources; 29. Safeguard the borough's limited minerals resources for future generations; 30. Support measures to increase household recycling rates; 31. Ensure development mitigates for and enables adaption to the effects of climate change; 32. Encourage the most efficient use of land and existing buildings to meet local needs;

33. Protect the borough's water quality and reduce the risk of flooding.

Level and Distribution of Growth

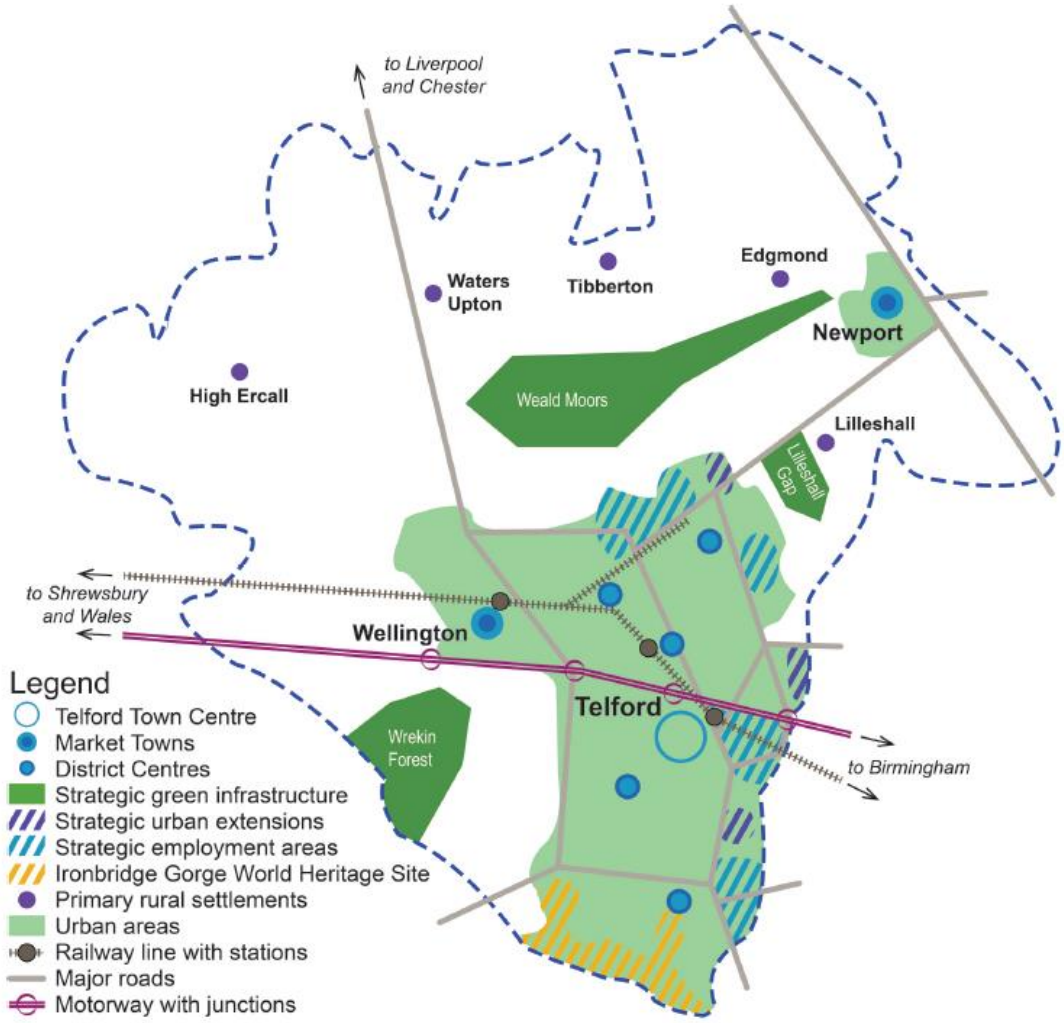
2.11 The Draft Local Plan proposes the delivery of at least 15,555 new dwellings and 120 ha of new employment land across the borough up to 2031. Telford will be the principal focus for growth with the Draft Local Plan identifying sufficient land to deliver approximately 13,313 new homes, which includes a number of strategic urban extensions, as well as 110 ha of employment land. The Plan supports the development of approximately 1,182 new homes in Newport and 10 ha of employment land to the south of the settlement. A small amount of development is proposed in the rural areas to help meet needs, this includes the delivery of approximately 902 new dwellings up to 2031.

2.12 The Draft Local Plan also proposes a number of specific site allocations for housing and employment which are identified in Appendix C and D of the Shaping Places Draft Local Plan. It also contains a wide range of policies that relate to a number of different topics including; housing, the economy, the natural environment, community, connections, built environment and environmental resources.

Overview of Plan Area

2.13 The spatial extent of the Shaping Places Draft Local Plan is shown in Figure 2.1 below.

Figure 2.1: Draft Local Plan Key Diagram



3.0 SCREENING

3.1 As detailed in Section 2, Table 2.1, HRA typically involves a number of stages. This section of the report sets out the approach and findings for Stage 1 of the HRA process, the HRA Screening for the Shaping Places Draft Local Plan. The aim of the screening stage is to assess in broad terms whether the policies and proposals set out in the plan are likely to have a significant effect on a European site(s), and whether in the light of available avoidance and mitigation measures, an Appropriate Assessment (AA) is necessary.

Previous Screening Work

Scoping 2012

3.2 It was noted in Section 1 that a scoping exercise was carried out in 2012 for the emerging Local Plan. The findings of this work were reported in the HRA Screening Report Stage. Given the early stage in plan-making the purpose of the scoping exercise was to identify which European sites were potentially within the influence of the emerging Local Plan.

3.3 The scoping identified the following eight European sites, outside of the Plan area, that should be scoped into the HRA process for the emerging Shaping Places Local Plan:

- Cannock Chase SAC
- Midland Meres and Mosses (Ramsar – Phase 1)
- Midland Meres and Mosses (Ramsar – Phase 2)
- Mottey Meadows SAC
- Severn Estuary SAC
- Severn Estuary Ramsar
- Severn Estuary SPA
- West Midlands Mosses SAC

3.4 The HRA Screening Report (April 2012) identified a number of plans and projects that have the potential to act in combination with the Local Plan in Appendix 1. Information on the European sites, including conservation objectives, qualifying features and vulnerabilities, were provided in Appendix 3.

3.5 Given the early stage in plan-making there wasn't sufficient detail in terms of the overall level and distribution of growth to determine if there was the potential for likely significant effects. However, the HRA did identify some broad mechanisms by which proposals contained in the Shaping Places might affect European sites. These included:

- Alteration in water quality
- Increased water abstraction
- Increased run off from new roads and development

- Air pollution from development work
- Air pollution from increased traffic in the long term
- Increased NOx gasses
- Increased sulphur dioxide
- Increased Acid deposition
- Increased Nitrogen deposition
- Increased recreational use and disturbance including dog walking
- Increased fishing on open water sites
- Increased introduced and invasive species issues
- Alterations in site management
- Increased hunting pressure from domestic animals e.g. cats

Screening the Shaping Places Strategy & Options 2013

3.6 In 2013, the Council produced and published a Shaping Place Strategy & Options Document, which set out a number of options for the overall level and distribution of growth, as well as potential options for policies. A high level HRA Screening was carried out to consider if the development proposed in the Strategy & Options Document has the potential for significant effects on the eight European sites identified through the scoping exercise in 2012. The findings of this work were presented in a HRA Screening Report, which was published alongside the Strategy & Options Document for consultation in June 2013.

3.7 The screening considered that the while direction of growth was still unclear, there is the potential for direct and indirect effects on the eight European sites scoped into the assessment. It concluded that the European sites should be carried forward to full Appropriate Assessment and that this should be carried out in parallel with the preparation of the Draft Local Plan stage, as there will be more clarity with regard to the level and location of growth.

3.8 The HRA Screening Report (June 2013) identified a number of plans and projects that have the potential to act in combination with the Local Plan in Appendix 1. Information on the European sites, including conservation objectives, qualifying features and vulnerabilities, was provided in Appendix 4. Comments were received from NE in July 2013 and these helped to inform the iterative and ongoing HRA process

Screening the Proposed Housing and Employment Sites Document 2014

3.9 Following consultation on the Strategy & Options Document and HRA Screening Report, further technical studies were carried out by the Council. The further evidence helped the Council to identify a preferred level of growth along with a number of potential sites to accommodate development. The Proposed Housing and Employment Sites (PHES) Document was published in May 2014 and set an overall level of growth of 20,000 dwellings during the life of the Local Plan along with a number of potential housing and employment sites.

3.10 A screening of the proposed housing and employment sites was carried out in 2014, with the findings presented in the HRA Screening Stage 3 Report published in August 2014. The screening considered the potential for likely significant effects of proposed development on the eight European sites originally scoped into the process along with the Stiperstones and the Hollies SAC on a precautionary basis.

3.11 The screening considered the 79 housing sites (two of these mixed use) and 46 proposed employment sites proposed within the PHES Document (May 2014). The assessment found that 77 of the 79 proposed housing sites and 46 of the 48 proposed employment sites were not likely to have significant effects on the identified European sites. Likely significant effects could not be ruled out for the two remaining housing and employment sites in Newport as a result of uncertainties with regard to the capacity of Newport Sewage Treatment Works. The screening recommended that the HRA decision for these 4 sites should be passed down to the lower level of plan-making when further detail is available.

Screening the Shaping Places Draft Local Plan 2015

Identification of European Sites

3.12 The European sites scoped into the previous screening assessments and set out below are still considered appropriate for the further screening work for the Draft Local Plan. Given the findings of the screening work carried out in 2014 and the distance of the site from the plan area (over 20km) the Stiperstones and the Hollies SAC has not been scoped into this HRA screening. No further comments have been received from statutory consultees with regard to the scope of the HRA and the changes to the Plan are not considered likely to significantly affect the European sites scoped in. The European sites scoped into the HRA for the Draft Local Plan are set out below:

- Cannock Chase SAC
- Midland Meres and Mosses (Ramsar – Phase 1)
- Midland Meres and Mosses (Ramsar – Phase 2)
- Mottey Meadows SAC
- Severn Estuary SAC
- Severn Estuary Ramsar
- Severn Estuary SPA
- West Midlands Mosses SAC

Characterisation of European Sites

3.13 A general overview of the European sites scoped into the assessment is provided below in Figure 3.21. More detailed characterisations including conservation objectives and the specific vulnerabilities for each site are provided in Appendix I.

Figure 3.1: European Site Characterisations

Cannock Chase SAC[1]

Cannock Chase is a large, diverse area of semi-natural vegetation comprising the most extensive area of lowland heathland in the Midlands with alder woodland, oak wood pasture and valley mires. It is home to breeding Nightjar, Woodlark, occasionally Dartford warbler and a diverse invertebrate fauna.

The character of the vegetation is intermediate between the upland or northern heaths of England and Wales and those of southern counties. Cannock Chase Special Area of Conservation is also a Country Park and lies in the heart of Cannock Chase Area of Outstanding Natural Beauty. Given its location it is a popular outdoor recreation destination and is subject to high visitor pressure. The Cannock Chase SAC Partnership has been set up to deliver robust access management measures to mitigate the negative effects of predicted future increases in recreational usage of the SAC. Current management of SAC land is targeted at restoring and strengthening the heathland vegetation mosaics.

Midland Meres & Mosses Ramsar (Phase 1 & 2)[2]

The Meres & Mosses form a geographically discrete series of lowland open water and peatland sites in the north-west Midlands of England. These have developed in natural depressions in the glacial drift left by receding ice sheets which formerly covered the Cheshire/Shropshire Plain. The 16 (Phase 1) & 18 (Phase 2) component sites include open water bodies (meres), the majority of which are nutrient-rich with associated fringing habitats; reed swamps, fen, carr & damp pasture. Peat accumulation has resulted in nutrient poor peat bogs (mosses) forming in some sites in the fringes of meres or completely infilling basins. In a few cases the result is a floating quaking bog or schwingmoor. The wide range of resulting habitats support nationally important flora & fauna.

Mottey Meadows SAC[3]

This site is an outstanding floristically-diverse mesotrophic grassland where traditional late hay cutting and aftermath grazing has been perpetuated, largely unaffected by modern agricultural practices. The site is important because of its large size, variety of grassland community types and presence of rare species. Furthermore it contains an extensive example of an alluvial flood meadow.

Severn Estuary SPA, SAC & Ramsar[4]

The Severn Estuary is located between Wales and England in south-west Britain. It is a large estuary with extensive intertidal mud-flats and sand-flats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The subtidal seabed is rock and gravel with subtidal sandbanks. The site also supports

[1] Natural England (2014) Cannock Chase SAC Site Improvement Plan.
[2] JNCC – Midland Meres & Mosses Ramsar Phase 1 Information Sheet.
[3] Natural England (2014) Mottey Meadows SAC Site Improvement Plan.
[4] Natural England (2014) Severn Estuary SAC & SPA Site Improvement Plan.

reefs of the tube forming worm *Sabellaria alveolata*.

The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have one of the highest tidal ranges in the world. A consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK. The tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide-swept sand and rock. The species-poor intertidal invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders and fish.

]The site is of importance during the spring and autumn migration periods for waders, as well as in winter for large numbers of waterbirds, especially swans, ducks and waders. The fish fauna is very diverse with more than 110 species identified. The site is of particular importance for migratory fish.

West Midlands Mosses SAC[5]

The West Midlands Mosses comprises four sites: Clarepool Moss, Abbots Moss, Chartley Moss and Wybunbury Moss.

These support large basin mires which have developed as quaking bogs, known as Schwingmoors, together with a variety of associated hollows and pools showing various types and stages of mire development. This complexity of habitats gives rise to a diverse assemblage of associated plants and invertebrates of national significance.

Effects of the Shaping Places Draft Local Plan 2015

3.14 A key element of the Draft Local Plan is the delivery across the plan area of 15,552 new dwellings and a minimum of 110 ha of new employment land over the life of the plan up to 2031. Housing, employment and infrastructure development has the potential to generate a range of environmental impacts which can, (depending on their nature, magnitude, location and duration), have effects on European sites. A summary of the types of impacts and effects that can arise from these types of development is provided in the Table below.

Table 3.1: Housing, Employment and Infrastructure Development: Summary of Impacts and Effects on European Sites

Effects on European Sites	Impact Types
Habitat (& species) fragmentation and loss	▪ Direct land take, removal of green/ connecting corridors/ supporting habitat, changes to sediment patterns (rivers and coastal locations) ▪ Introduction of invasive species (predation)
Disturbance	▪ Increased recreational activity (population increase) ▪ Noise and light pollution (from development and increased traffic)
Changes to	▪ Increased abstraction levels (new housing)

[5] Natural England (2014) West Midland Mosses SAC Site Improvement Plan.

Effects on European Sites	Impact Types
hydrological regime/ water levels	▪ Increased hard standing non-permeable surfaces/ accelerated run-off ▪ Laying pipes/ cables (surface & ground) ▪ Topography alteration
Changes to water quality	▪ Increase in run-off/ pollutants from non-permeable surfaces (roads, built areas) ▪ Increased air pollution (eutrophication) (traffic, housing) ▪ Increased volume of discharges (consented)
Changes in air quality	▪ Increased traffic movements ▪ Increased emissions from buildings

3.15 The first stage in the screening process considered the potential impacts (Table 3.1 above) arising as a result of the policies and whether these have the potential to lead to likely significant effects (LSE). The screening identified five Draft Local Plan Policies for which the impacts could potentially lead to significant effects (Appendix III) alone or in-combination with each other. The policies and their potential impacts are provided in the Table below.

Table 3.2: Shaping Places Draft Local Plan Policies identified as having impacts that could lead to LSE

Policy/ Allocation	Potential impacts of the Policy/ Allocation
SP1 – Telford	The policy sets the town of Telford as the main focus for the majority of development needs over the Plan period, and identifies land to deliver approximately 13,313 new homes in Telford up to 2031 (including a number of strategic extensions to the town that the Council considers are appropriate for development). The policy also supports the delivery of approximately 110 hectares of new employment land up to 2031, retaining the towns existing role of Principle Service Centre in the borough. The delivery of housing and employment development has the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.
SP2 – Newport	The policy supports the role of the Newport area as a Market Town, planning for approximately 10 hectares of additional employment land, and housing development limited to that required to meet local needs; identified as approximately 1,182 new homes up to 2031. Sites over and above those committed or identified in the Plan will be prioritised on previously developed sites within the town. Though the policy seeks to respect and enhance the quality of the towns natural environment, the delivery of housing and employment has the potential to result in:

Policy/ Allocation	Potential impacts of the Policy/ Allocation
	▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.
SP3 – Development in the Rural Area	The policy restricts development in the rural area to that required to meet local needs, identified as 902 new homes up to 2031. The policy also adopts a preference for the re-use of previously developed land in sustainable locations. Although the policy and mitigation provided through the Plan should help to ensure the protection of the natural environment, the delivery of housing through this policy has the potential to act in-combination with other policies resulting in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.
EC1 - Employment site allocations policy	The policy identifies the provision of a minimum of 110 ha of new employment land during the life of the plan. It also proposes preferred locations for this growth in Appendix C and on the policies map. The delivery of 110 ha of new employment land has the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality. None of the employment allocations proposed in Appendix C were considered likely to have LSEs alone given their distance from European sites. The potential for in-combination effects for the overall level of proposed growth will considered in further detail.
HO1 – Housing Requirement	The policy makes provision for the delivery of at least 15,552 new dwellings across the borough up to 2031 (individual sites are considered within Policy HO2). The policy is likely to result in development in the borough and intensification in some areas, with the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.

Policy/ Allocation	Potential impacts of the Policy/ Allocation
	It should be noted that the majority of the development proposed through this policy is either completed (3,243 dwellings) or already has planning permission (8,339 dwellings).

3.16 The five Draft Local Plan Policies and their potential impacts were then screened against each of the European sites scoped into the HRA (Appendix IV). This included consideration of the environmental pathways and sensitivities of the sites, as well as mitigation provided by Draft Local Plan Policies. Appendix III and IV detail the results of the HRA screening process for the Draft Local Plan, the key findings are summarised below.

Screening Assessment

3.17 HRA screening good practice combines both a plan and a European site focus. The policy screening removes from consideration, those elements of the plan unlikely to have effects on European sites. The remaining five plan elements (summarised above) can then be considered in more detail for their impacts on European sites. The site focus considers the impacts and potential effects identified through the policy screening, in the light of the environmental conditions necessary to maintain site integrity for the European sites scoped into the assessment.

3.18 Table 3.3 considers the potential impacts (Table 3.2) arising from the Draft Local Plan Policies (Appendix III) against the identified European sites (Appendix IV) to determine if there is the potential for likely significant effects. Table 3.4 provides the key to Table 3.3 to describe the results of the assessment.

Table 3.3: HRA Screening Summary

European sites	Potential Likely Significant Effects					
	Air Quality		Disturbance		Water Levels & Quality	
	A[6]	IC[7]	A	IC	A	IC
Cannock Chase SAC	No	No	No	No	No	No
Midland Meres and Mosses (Ramsar – Phase 1)	No	No	No	No	No	No
Midland Meres and Mosses (Ramsar – Phase 2)	No	No	No	No	No	No
Mottey Meadows SAC	No	No	No	No	No	No
Severn Estuary SAC/ SPA/ Ramsar	No	No	No	No	No	No
West Midlands Mosses SAC	No	No	No	No	No	No

Table 3.4: Screening Summary Key

Likely Significant Effect	**Yes**	Appropriate Assessment required
No Likely Significant Effect	**No**	No further assessment required
Significant Effect Uncertain	**?**	Uncertain, precautionary approach taken and Appropriate Assessment required

Air Quality

3.19 For all of the European sites it was assessed that there would be no significant effects as a result of the Plan alone through increased short range pollution as there are no existing pathways. Development will not result in a significant increase in traffic along any major roads that are within 200m of the European sites.

3.20 While development proposed through the Plan area could contribute to long-range diffuse atmospheric pollution it was considered that the contribution is unlikely to be of significance. The reality of the situation is that the majority of housing development proposed through the Plan

[6] AA required alone?
[7] AA required in combination?

is either already completed (3,243 dwellings from 2011 to 2015) or currently has planning permission (9,310 dwellings). Given the mitigation provided through Draft Local Plan Policies below, it is considered that the contribution of the plan is unlikely to be of significance and be less than 1% of the minimum critical loads or levels alone for nitrogen at the European sites. Draft Local Plan policies seek to protect air quality and minimise the impacts of increased atmospheric pollution and traffic:

- EC4 - Hierarchy of Centres - focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking.
- NE5 - Biodiversity and Geodiversity Assets - Protects and enhances valued assets, development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species.
- NE6 - Trees, Hedgerows and Woodlands - managing and protecting existing assets and restricting felling. Supports improved air quality.
- C1 - Promoting alternatives to the car - promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking.
- C3 - Impact of development on Highways - seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution.
- BE1 - Urban Design - promotes design that encourages walking and cycling and efficient energy consumption.
- ER1 - Renewable Energy - promoting cleaner energy generation and consumption.

3.21 The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. It is seeking a plan rather than project level approach to address the impacts of development on the highways network, which will help to ensure that the cumulative impact of all the development proposed is appropriately addressed. This is in line with the Telford & Wrekin Local Transport Plan[8], which seeks to employ a plan led approach for new developments to mitigate any transport impacts. To help guide this approach, the Council has developed a Transport Mitigation Strategy, which sets out the strategic impact of proposed development on the transport system and proposes different ways to mitigate the potential impact[9]. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes as well as facilities/services should help to reduce the need to travel by private car with long term positive effects on air quality.

[8] Telford & Wrekin Council (2011) Local Transport Plan 2011-2026.
[9] Prepared by Pell Frischman on behalf of Telford & Wrekin Council (Feb 2015) Telford Future – Shaping Places. Shaping Places Report. Draft Final.

3.22 It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan will not have LSEs on European sites either alone or in-combination as a result of increased diffuse atmospheric pollution.

Disturbance

3.23 The screening considered that there is the potential risk for recreational disturbance at three of the European sites; Cannock Chase SAC, Mottley Meadows SAC and Midland Meres and Mosses Ramsar (Phase 2).

3.24 Evidence suggests that recreational activities at the Cannock Chase SAC are having adverse impacts. A mitigation strategy has been produced to address this issue and it proposes the collection of developer contributions from all housing development within 15km of the SAC[10]. The evidence supporting this work, including a visitor survey, suggests that the majority of visitor trips (75%) originate from within 15km of the SAC. The screening considered that given the SAC is approximately 20km from the Plan boundary it is not likely to have significant effects alone as a result of increased recreational activity alone. While development could act in-combination with other plans and programmes, the screening considered that this contribution is not likely to be of significance given the mitigation provided through Draft Local Plan Policies set out below:

- EC4 - Hierarchy of Centres - focuses development in existing centres where there are more local recreation opportunities.
- NE1, NE2 and NE3 - Green Infrastructure / Green Network - protecting and enhancing local and strategic open space needs as well as the requirement for new development to contribute to the provision and enhancement of new and existing open space and recreational facilities.
- NE5 - Biodiversity and Geodiversity Assets - protecting, maintaining and enhancing valued habitats and species, supporting local assets and the recreational values that they hold.
- NE7 - Existing Public Open Space - protecting and maintaining local open space provisions that provide local sport and recreational opportunities.
- NE8 - Provision of public open space - requires new development to provide and/or contribute to the provision of useful and functional open space.
- COM1 - Social Infrastructure - restricting development that affects existing community infrastructure and local recreational facilities.

[10] Underhill-Day, J. & Liley, D. (2012). Cannock Chase Visitor Impacts Mitigation Report. Footprint Ecology. Unpublished report.

3.25 The screening concluded that the Draft Local Plan will not have likely significant effects either alone or in-combination on the Cannock Chase SAC as a result of increased recreational disturbance.

3.26 Mottey Meadows SAC lies approx 5km to the east of the Plan boundary. While the qualifying features of the SAC are vulnerable to the impacts of recreational activity the recent Site Improvement Plan prepared by NE does not indicate that this is currently an issue[11]. Taking this into account, the screening considered that the mitigation provided through Draft Local Plan Policies (set out above), in particular the provision of green infrastructure (Policies NE1 to 3) and public open space (NE8), will ensure that proposed development will not have likely significant effects either alone or in-combination on the Mottey Meadows SAC through increased recreational activity.

3.27 A component site of the Midland Meres and Mosses Ramsar (Phase 2) is situated to the north east of Newport, approximately 500m from the boundary of the Plan area. Development within the Plan area, particularly in and around Newport, has the potential to increase recreational activities at the site. It should be noted that only a small proportion of the overall level of growth is directed towards Newport (1,182 new dwellings and 10 ha of new employment land) and this is located in the south of the town away from the European site. It is worth noting again that the majority of housing development proposed through the Plan is either already completed (3,243 dwellings from 2011 to 2015) or has planning permission (9,310 dwellings). The screening determined that the site allocations in Newport alone are unlikely to result in significant effects alone given the scale of proposed development and location to the south of Newport.

3.28 Given that only a small proportion of development is directed towards Newport and this is to the south of the town away from the SAC, it is considered unlikely that the Draft Local Plan will have significant effects on the Ramsar through increased recreation. Mitigation provided through Draft Local Plan Policies (set out above), in particular the provision of green infrastructure (Policies NE1 to 3) and public open space (NE8), will ensure that proposed development will not have likely significant effects either alone or in-combination on the Midland Meres and Mosses Ramsar (Phase 2) through increased recreational activity.

Water Quality

3.29 As all of the European sites lie outside the Plan area it is considered that impacts are most likely to occur through the provision of new homes and resulting increased pressure on sewerage capacity.

3.30 Severn Trent Water provides wastewater and sewerage services across the borough with a number of Waste Water Treatment Works (WwTW) serving various catchments within the plan area. A Detailed WCS was

[11] http://publications.naturalengland.org.uk/publication/6519033218203648

produced in 2014 that examined nine WwTWs that serve areas in which strategic growth was being planned in the borough[12]. It found that the overall level of constraint, taking into account current ecological status under the WFD, for the nine WwTWs is as follows:

- Very high for the Newport, Coalport, Waters Upton and Crudgington WwTWs;
- Moderate to high for the Rushmoor and High Ercall WwTWs;
- Moderate for the Edgmond and Sambrook WwTWs; and
- Low for the Monkmoor WwTW.

3.31 It concluded that wastewater treatment capacity is the main environmental and infrastructure constraint to growth in the plan area. Telford is the main focus for growth in the borough (Policy SP1) during the life of the plan. This will result in the majority of development falling within the catchments for the Coalport and Rushmoor WwTWs, which eventually discharge into the River Severn. The evidence suggests that there is capacity across the existing WwTWs serving towns in the borough to support the level of growth set out in the Plan (Policies HO1 and EC1); however, this capacity does not align with the spatial strategy set out in the Draft Local Plan. Based on the findings of the WCS, it appears that there is currently not enough capacity at the majority of WwTWs to accommodate the level of growth proposed. However, it should be noted that through the work undertaken for the WCS, Severn Trent Water confirmed that there will be capital maintenance work and, as required, capacity increase at WwTWs to cater for future growth[13]. There are ongoing improvements to Rushmoor WwTWs that when completed in 2016 will result in it operating 65% under capacity[14]. It should also be noted that the Detailed WCS also considered a higher level of growth (20,000 new dwellings) than is currently being proposed through the Draft Local Plan.

3.32 Policy ER 11 seeks to avoid adverse impacts of additional demand on the foul sewerage network and expects developers to demonstrate the following:

- How foul flows produced by the development will be drained and identification of the agreed point of connection to the public foul sewerage network;
- How development will be phased to allow Severn Trent Water sufficient time to undertake any necessary capacity improvement works to the public foul network or to existing waste water treatment works prior to construction and occupation of developments; and
- How any development adjacent to water bodies covered by the Water Framework Directive will contribute towards those water

[12] Telford and Wrekin Council (2014) Detailed Water Cycle Study Final Report.
[13] Ibid.
[14] http://www.waterprojectsonline.com/case_studies/2013/Severn_Trent_Rushmoor_2013.pdf

bodies maintaining or achieving Good Ecological Status. This may take the form of on-site measures, a financial contribution to off-site measures or where viable seeking a more appropriate location for development.

3.33 The phasing of growth will be key to ensuring that the necessary improvements to WwTWs and the sewerage network can be made to provide sufficient capacity. The supporting text of Policy ER 11 acknowledges this and states that strategically phasing development across the course of the plan will allow Severn Trent Water and other statutory undertakers to incorporate improvements into Asset Management Plans delivering key infrastructure in advance of development. It also states that regular reviews of the Infrastructure Delivery Plan will also help provide Severn Trent Water with information on any changes to the phasing of development in a more timely fashion allowing opportunities to re-deploy resources to better meet the needs of emerging development patterns. To help strengthen the plan, it is recommended that Policy ER 11 is linked to the phasing of proposed development set out in Policy HO3. The Council is intending to take a plan rather than development led approach with regard to water quality, allowing the Council, Severn Trent Water and the EA to assess any potential water quality issues in advance of applications and develop appropriate mitigating measures.

3.34 Draft Local Plan Policy ER 12 relates to the effective on-site management of surface water and expects developers to provide detailed schemes for the management of surface water runoff as well as criteria for the provision of Sustainable Urban Drainage Systems. The Policy also expects developers to ensure that discharge locations have capacity to receive all foul and surface water discharge from developments. Any development that is adjacent to a surface water body or providing new features as part of development, developers must ensure they are multi-functional and enhance the hydrology, ecological, visual and recreational value of the water body.

3.35 The screening concluded that existing regulatory processes, such as discharge licensing (including EA Review of Consents) and the WFD, as well as mitigation provided through Draft Local Plan Policies, should ensure that there are no likely significant effects on European sites through reduced water quality as a result of increased discharge. This matter will need to be monitored carefully to ensure that there is sufficient capacity at WwTWs for proposed growth and that potential impacts on water quality are minimised.

Water Levels

3.36 Development proposed in Draft Local Plan has the potential to have negative effects on water resources through increased abstraction. The borough primarily falls within the Shelton Water Resource Zone (WRZ) and Whitchurch and Wren WRZ. The spatial strategy set out in the Draft Local Plan will result in the majority of growth proposed being

located within the Shelton WRZ. The Severn Trent Water Resource Management Plan[15] (WRMP) identifies that the supply in the Shelton WRZ is due to suddenly decline in 2024/25 in response to license revocations to meet environmental (river) flow requirements. The River Worfe and some of its tributaries are impacted by low flows, principally caused by over-abstraction of the underlying aquifer for public supply.

3.37 The WRMP seeks to address this issue and increase the volume of water available for supply through a number of measures, which include pipeline upgrades to transfer additional water from the west part of the Shelton zone to the east and increasing abstraction at the Uckington borehole. However, it should be noted that this is dependent on ongoing discussion with the EA as it would involve increased groundwater abstraction from an area where groundwater is already over licenses and over abstracted. A Detailed Water Cycle Study[16] (WCS) produced by the Council states that a secure supply-demand balance also depends on demand not exceeding the forecasted level of growth within the WRMP. Telford is one of just three main urban areas in the Shelton WRZ; therefore, its growth rates have the potential to affect the balance between supply and demand.

3.38 As is the case nationally, the evidence demonstrates that increased pressure on water resources is a key issue for the borough and surrounding areas. The WCS recommends that per capita consumption across the borough needs to be effectively management to a level of around 110 litres per person per day. It also encourages the Council to take opportunities to promote Severn Trent Water's free metering programme and water efficiency advice to residents across the borough. It is important to note that the Detailed WCS considered a higher level of growth (20,000 new dwellings) than is currently being proposed through the Draft Local Plan.

3.39 The Draft Local Plan seeks to promote water sensitive design in new development in order to make a positive contribution to the security of water supplies in the Shelton WRZ. Policy ER 10 expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/ re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand.

3.40 Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan Policies, it is considered unlikely that there will be significant effects alone or in-combination on the European sites through increased

[15] Severn Trent Water (2014) Final Water Resource Management Plan. Available online: http://www.severntrent.com/future/future-plans-and-strategy/water-resources-management-plan
[16] Telford and Wrekin Council (2014) Detailed Water Cycle Study Final Report.

abstraction. While not essential to the finding of no likely significant effect, in line with the Detailed WCS, it is recommended that as a minimum Draft Local Plan Policy ER 10 should require developers to demonstrate that water consumption in the development will be managed at a level of 110 litres per person per day. While it is acknowledged that the Detailed WCS considered a higher level of growth than is currently proposed in the Draft Local Plan, a precautionary approach should be taken to allow for flexibility in the Plan, should the overall level of growth need to increase in the future as a result of new or updated evidence. It is also recommended that Policy ER 10 is linked to the phasing of proposed developed set out in Policy HO 3. The phasing of development will be a key factor in helping to ensure a secure supply-demand balance.

4.0 HRA CONCLUSIONS

4.1 This report outlines the methods used and the findings arising from the HRA Screening for the Telford & Wrekin Draft Local Plan. The HRA of the Draft Plan has been undertaken in accordance with available guidance and good practice and has been informed by the previous HRA screening work and findings produced for earlier iterations of the Plan, as well as advice received from Natural England.

4.2 The Draft Local Plan proposes the delivery of 15,555 new dwellings and a minimum 110 ha of new employment land across the borough up to 2031. The Plan focuses the majority of this growth in Telford (13,313 new homes and 110 ha of new employment land) with some development also being directed towards Newport (1,182 new homes and 10 ha of new employment land) and the rural areas (902 new dwellings). It is important to note that the majority of housing development proposed through the Plan is either already completed (3,243 dwellings from 2011 to 2015) or currently has planning permission (9,310 dwellings).

4.3 The screening identified five Draft Local Plan Policies for which the impacts could potentially lead to significant effects either alone, or more likely in-combination. The five policies and their potential impacts were then screened against each of the eight European sites scoped into the HRA. This included consideration of the environmental pathways and sensitivities of the sites, as well as mitigation provided by Draft Local Plan Policies.

4.4 The screening found that the Draft Local Plan is not likely to have significant effects either alone or in-combination on any European sites as a result of short or long range (diffuse) atmospheric pollution. Proposed development will not significantly increase traffic on any major roads within 200 m of a European site and the mitigation provided through Draft Local Plan Policies, including a comprehensive mitigation strategy for traffic, will ensure that the Plan will not significantly contribute to diffuse pollution and therefore atmospheric deposition at European sites.

4.5 The screening also found that the Draft Local Plan is not likely to have significant effects either alone or in-combination on any European sites as a result of increased recreational disturbance. All of the European sites lie outside the Plan area and given the distribution of development and mitigation provided through Draft Local Plan Policies, in particular the provision of green infrastructure and new public open space, it is considered unlikely that proposed development will significantly increase recreational activity at any of the European sites.

4.6 It was also determined that the Draft Local Plan is not likely to have significant effects either alone or in-combination on any European sites as a result of increased abstraction or sewerage discharge. Existing regulatory processes - such as abstraction and discharge licensing

(including EA Review of Consents), Water Resource Management Plans and the Water Framework Directive - as well as mitigation provided through Draft Local Plan policies, should ensure that there are no likely significant effects on European sites by ensuring there is sufficient water resources available as well as capacity at Waste Water Treatment Works.

4.7 While not essential to the findings of no likely significant effect, in line with the Detailed Water Cycle Study, the screening recommended that as a minimum, Draft Local Plan Policy ER 10 should require developers to demonstrate that water consumption in the development will be managed at a level of 110 litres per person per day. This would allow for flexibility in the Plan, should the overall level of growth need to increase in the future as a result of new or updated evidence. It is also recommended that Policy ER 10 is linked to the phasing of proposed developed set out in Policy HO 3. The phasing of development will be a key factor in helping to ensure sufficient water resource and sewerage capacity.

Consultation and Further Work

4.8 These findings will be subject to further consultation comments and advice from NE and wider stakeholders. HRA is an iterative process and further work will be undertaken alongside the Shaping Places Local Plan to inform its development.

4.9 The findings of this plan level HRA do not obviate the need to undertake HRA for lower level, project scale/ implementation plans where there is potential for significant effect on one or more European sites. The findings of this HRA should be used to inform any future assessment work.

Appendix I: European Site Characterisations

- Cannock Chase SAC
- Mottey Meadows SAC
- Severn Estuary SAC
- West Midlands Mosses SAC
- Severn Estuary SPA
- Severn Estuary Ramsar Site
- Midlands Meres and Mosses Ramsar Site (Phase 1)
- Midlands Meres and Mosses Ramsar Site (Phase 2)

Special Areas of Conservation

Site Name: Cannock Chase **Location Grid Ref: SJ982188** **JNCC Site Code: UK0030107** **Size: 1236.93 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The area of lowland heathland at Cannock Chase is the most extensive in the Midlands. The character of the vegetation is intermediate between the upland and northern heaths of England and Wales and those of southern counties. Dry heathland communities are of the heather – western gorse (*Calluna vulgaris – Ulex gallii)* and heather – wavy hair-grass (*Calluna vulgaris – Deschampsia flexuosa)*types. Within the heathland, species of northern latitudes occur, such as cowberry *Vaccinium vitis-idaea* and crowberry *Empetrum nigrum*. Cannock Chase has the main British population of the hybrid bilberry *Vaccinium intermedium*, a plant of restricted occurrence. The scarcity of water over much of the Chase effectively confines wetland flora and fauna to the stream valley systems and a scatter of natural and artificial pools and damp depressions. The Oldacre and Sherbrook valleys have small-scale mosaics of spring-fed mire and wet heath, a result of complex water chemistry. Where acidic conditions prevail the mires are mostly formed of bog mosses *Sphagnum* spp. with cranberry *Vaccinium oxycoccus*, cottongrasses *Eriophorum* spp. and cross-leaved heath *Erica tetralix*.
Qualifying Features	Annex I habitats qualifying features: ▪ Northern Atlantic wet heaths with *Erica tetralix*; Wet heathland with cross-leaved heath ▪ European dry heaths Annex II species: ▪ *Austropotamobius pallipes* ▪ *Triturus cristatus*
Conservation Objectives	To 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 ▪ The structure and function (including typical species) of qualifying natural habitats, and ▪ The supporting processes on which the qualifying natural habitats rely
Vulnerabilities (includes existing pressures and trends)	▪ Visitor pressures including dog walking, horse riding, mountain biking and off-track activities such as orienteering. These pressures cause disturbance and result in erosion, new track creation and vegetation damage ▪ Bracken invasion is significant, but is being controlled. Birch and pine scrub invasions need to be controlled as sustainable management in the form of livestock grazing is problematical as a significant proportion of the site is Common Land ▪ The site overlies deep-mined coal measures and mining fissures continue to appear across the site even though mining has ceased which is thought to detrimentally affect site hydrology ▪ The underlying Sherwood Sandstone is a major aquifer with water abstracted for public and industrial uses and the effects of this on the wetland features of the Chase are not fully understood.

Site Name: Mottey Meadows **Location Grid Ref: SJ840134** **JNCC Site Code: UK0030051** **Size: 43.87 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
Site Description	Mottey Meadows contains lowland hay meadows with limited influence of agricultural intensification and so demonstrates good conservation of structure and function. There are transitions to other dry and wet grassland types. The site is important for a range of rare meadow species, including fritillary *Fritillaria meleagris* at its most northerly native locality.
Qualifying Features	Annex I habitats: ▪ Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis)*
Conservation Objectives	To ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; ▪ The extent and distribution of qualifying natural habitats ▪ The structure and function (including typical species) of qualifying natural habitats, and ▪ The supporting processes on which qualifying natural habitats rely
Vulnerabilities (includes existing pressures and trends)	The meadows are dependent upon traditional agricultural management – hay-cutting and aftermath grazing with no use of agrochemicals. The site is vulnerable to nutrient run-off from adjacent agricultural land. The site is owned and managed by Natural England with all the issues addressed through the site's management plan. The site is also vulnerable to a lowering of both ground and surface water levels, because the floristic composition is dependent on a high water table in autumn and winter. This will be addressed through consultation with the Environment Agency, and any problems arising from licensed abstractions will be dealt with through the review process under the Habitats Regulations.

Site Name: Severn Estuary **Location Grid Ref: ST321748** **JNCC Site Code: UK0013030** **Size: 73715.40 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The Severn Estuary lies on the south west coast of Britain at the mouth of four major rivers (the Severn, Wye, Usk, and Avon). The immense tidal range (the second highest in the world) and classic funnel shape make the Severn Estuary unique in Britain and very rare worldwide. This tidal range creates strong tidal streams and high turbidity, producing communities characteristic of the extreme physical conditions of liquid mud and tide-swept sand and rocks. The Estuary includes a wide diversity of habitats including Sandbanks which are slightly covered by sea water all the time, Mudflats and sandflats not covered by sea water at low tide, Atlantic salt meadows, and Reefs, which are identified as Annex I habitats in their own right. The intertidal zone of mudflats, sand banks, rocky platforms and saltmarsh is one of the largest and most important in Britain. The estuary has a diverse geological setting and a wide range of geo-morphological features, especially sediment deposits. It is important for the interpretation of coastline dynamics and land-forms, and also past changes in, sea level, sediment supply, climate and river flow. The estuary's overall interest depends on its large size, and on the processes and interrelationships between the intertidal and marine habitats and its fauna. The fluctuating salinity and highly mobile sediments with consequent high turbidity limits the benthic invertebrates of the mud and sandflats to relatively few species. Those which are tolerant of such conditions occur in very high densities on the more stable mudflats. Beds of eel-grass *Zostera* spp. also occur on some mudflats. A greater variety of invertebrates occurs in the intertidal rock platforms, a more stable habitat with rock pools and a relatively high cover of seaweeds. The estuary fringes have large areas of saltmarsh. These are often grazed by sheep and / or cattle, a significant factor determining the plant communities. A range of saltmarsh types is present, with both gradual and stepped transitions between bare mudflat and upper marsh.

Site Name: Severn Estuary **Location Grid Ref: ST321748** **JNCC Site Code: UK0013030** **Size: 73715.40 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
	The estuarine fauna includes: invertebrate populations of importance (especially as a food resource for a wide range of bird and fish species), internationally important populations of waterfowl; and large populations of migratory fish, including Sea lamprey *Petromyzon marinus,* River lamprey *Lampetra fluviatilis* (both of which spawn in freshwater but complete part of their life cycle in the sea), Twaite shad *Alosa fallax* and the nationally rare and endangered Allis Shad *Alosa alosa.*
Qualifying Features	Annex I Qualifying Habitats: ▪ Estuaries ▪ Sandbanks which are slightly covered by sea water all the time (subtidal sandbanks) ▪ Mudflats and sandflats not covered by sea water at low tide (intertidal mudflats and sandflats) ▪ Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)* ▪ Reefs Annex II Qualifying Species: ▪ Sea Lamprey (*Petromyzon marinus*) ▪ River Lamprey (*Lampetra fluviatilis*) ▪ Twaite Shad (*Alosa fallax*)
Conservation Objectives	**SAC interest feature 1: Estuaries** The conservation objective for the "estuaries" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	i. the total extent of the estuary is maintained; ii. the characteristic physical form (tidal prism/cross sectional area) and flow (tidal regime) of the estuary is maintained; iii. the characteristic range and relative proportions of sediment sizes and sediment budget within the site is maintained; iv. the extent, variety and spatial distribution of estuarine habitat communities5 within the site is maintained; v. the extent, variety, spatial distribution and community composition of hard substrate habitats and their notable communities is maintained; vi. the abundance of the notable estuarine species assemblages7 is maintained or increased; vii. the physico-chemical characteristics of the water column9 support the ecological objectives described above; viii. Toxic contaminants in water column and sediment are below levels which would pose a risk to the ecological objectives described above. ix. Airborne nutrient and contaminant loads are below levels which would pose a risk to the ecological objectives described above **SAC interest feature 2: Subtidal sandbanks which are covered by sea water all the time (subtidal sandbanks)** The conservation objective for the "subtidal sandbanks" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the total extent of the subtidal sandbanks within the site is maintained; ii. the extent and distribution of the individual subtidal sandbank communities within the site is maintained;

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	iii. the community composition of the subtidal sandbank feature within the site is maintained; iv. the variety and distribution of sediment types across the subtidal sandbank feature is maintained; v. the gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained. **SAC interest feature 3: Mudflats and sandflats not covered by seawater at low tide (mudflats and sandflats)** The conservation objective for "mudflats and sandflats" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. The total extent of the mudflats and sandflats feature is maintained; ii. the variety and extent of individual mudflats and sandflats communities within the site is maintained; iii. the distribution of individual mudflats and sandflats communities3 within the site is maintained; iv. the community composition of the mudflats and sandflats feature within the site is maintained; v. the topography of the intertidal flats and the morphology (dynamic processes of sediment movement and channel migration across the flats) are maintained. **SAC interest feature 4: Atlantic salt meadow** The conservation objective for the "Atlantic salt meadow" feature of the Severn Estuary SAC is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	i. the total extent of Atlantic salt meadow and associated transitional vegetation communities within the site is maintained; ii. the extent and distribution of the individual Atlantic salt meadow and associated transitional vegetation communities within the site is maintained; iii. the zonation of Atlantic salt meadow vegetation communities and their associated transitions to other estuary habitats is maintained; iv. the relative abundance of the typical species of the Atlantic salt meadow and associated transitional vegetation communities is maintained; v. the abundance of the notable species of the Atlantic salt meadow and associated transitional vegetation communities is maintained. vi. the structural variation of the salt marsh sward (resulting from grazing) is maintained within limits sufficient to satisfy the requirements of conditions iv and v above and the requirements of the Ramsar and SPA features vii. the characteristic stepped morphology of the salt marshes and associated creeks, pills, drainage ditches and pans, and the estuarine processes that enable their development, is maintained. viii. Any areas of *Spartina anglica* salt marsh (SM6) are capable of developing naturally into other saltmarsh communities. **SAC interest feature 5: Reefs** The conservation objective for the "reefs" feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the total extent and distribution of *Sabellaria* reef is maintained; ii. the community composition of the *Sabellaria* reef is maintained;

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	iii. the full range of different age structures of *Sabellaria* reef are present; iv. the physical5and ecological processes necessary to support *Sabellaria* reef are maintained. **SAC interest feature 6: River lamprey *Lampetra fluviatilis*** The conservation objective for the river lamprey *Lampetra fluviatilis* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the migratory passage of both adult and juvenile river lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; ii. the size of the river lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term; iii. the abundance of prey species forming the river lamprey's food resource within the estuary, is maintained. iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above. **SAC interest feature 7: The conservation objective for sea lamprey *Petromyzon marinus*** The conservation objective for the sea lamprey *Petromyzon marinus* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	i. the migratory passage of both adult and juvenile sea lamprey through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; ii. the size of the sea lamprey population in the Severn Estuary and the rivers which drain into it, is at least maintained as is at a level that is sustainable in the long term; iii. the abundance of prey species forming the sea lamprey's food resource within the estuary, is maintained. vi. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above. **SAC interest feature 8: The conservation objective for twaite shad *Alosa fallax*** The conservation objective for the twaite Shad *Alosa fallax* feature of the Severn Estuary SAC is to maintain the feature in a favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the migratory passage of both adult and juvenile twaite shad through the Severn Estuary between the Bristol Channel and their spawning rivers is not obstructed or impeded by physical barriers, changes in flows or poor water quality; ii. the size of the twaite shad population within the Severn Estuary and the rivers draining into it is at least maintained and is at a level that is sustainable in the long term. iii. the abundance of prey species forming the twaite shad's food resource within the estuary, in particular at the salt wedge, is maintained. iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.

Site Name: Severn Estuary **Location Grid Ref: ST321748** **JNCC Site Code: UK0013030** **Size: 73715.40 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
Vulnerabilities (includes existing pressures and trends)	▪ **Physical loss of supporting habitats through removal** - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability. ▪ **Contamination by synthetic and/or non-synthetic toxic compounds** - At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds. ▪ **Damage by abrasion or selective extraction** - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction. ▪ **Changes in nutrient and/or organic loading** - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should

Site Name: Severn Estuary Location Grid Ref: ST321748 JNCC Site Code: UK0013030 Size: 73715.40 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation. ▪ **Inappropriate grazing** - Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.

Site Name: West Midland Mosses **Location Grid Ref: SK026282** **JNCC Site Code: UK0013595** **Size: 184.18 ha** **Designation: SAC**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The West Midlands Mosses comprise four sites supporting large basin mires which have developed as quaking bogs, known as Schwingmoors, together with a variety of associated hollows and pools showing various types and stages of mire development. This complexity of habitats gives rise to a diverse assemblage of associated plants and invertebrates of national significance, in particular at Clarepool Moss where the water quality is unusual for this type of site in being base-rich.
Qualifying Features	Annex I habitats: ▪ Natural dystrophic lakes and ponds ▪ Transition mires and quaking bogs ▪ Bog woodland
Conservation Objectives	To 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 and qualifying natural habitats ▪ The structure and function (including typical species) of qualifying natural habitats, and ▪ The supporting processes on which qualifying natural habitats rely
Vulnerabilities (includes existing pressures and trends)	Colonisation of open schwingmoors or *Sphagnum* lawns and rafts in the West Midlands Mosses by birch and pine is controlled by works under Management Agreement or by National Nature Reserve management, and in liaison with the local wildlife trust at Abbotts Moss. Several sources of nutrient enrichment, including atmospheric deposition of nutirents, pose a potential threat at these sites. A Management Agreement controls agricultural run-off at Chartley Moss. Trees at this site trap airborne nutrients and provide roost areas for birds, but the enrichment effect of both is only localized. At Abbots Moss the threat of enrichment from atmospheric

Site Name: West Midland Mosses Location Grid Ref: SK026282 JNCC Site Code: UK0013595 Size: 184.18 ha Designation: SAC	Habitats Regulations Assessment: Data Proforma
	sources has been reduced by clear-felling of basin slopes adjacent to the mires. All parts of that site are vulnerable to recreational disturbance, particularly the northern portion which is a scout camp.

Special Protection Areas

Site Name: Severn Estuary **Location (Lat & long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK9015022** **Size: 24662.98 ha** **Designation: SPA**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The Severn Estuary is the largest coastal plain estuary in the UK with extensive mudflats and sandflats, rocky shore platforms, shingle and islands. Saltmarsh fringes the coast, backed by grazing marsh with freshwater and occasional brackish ditches. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second highest tidal range in the world (after the Bay of Fundy in Canada) at more than 12 meters. This tidal regime results in plant and animal communities typical of the extreme physical conditions of strong flows, mobile sediments, changing salinity, high turbidity and heavy scouring. The resultant low diversity invertebrate communities, that frequently include populations of ragworms, lugworms and other invertebrates in high densities, form an important food source for passage and wintering birds. The site is important in the spring and autumn migration periods for waders moving along the west coast of Europe, as well as in winter for large numbers of waterbirds including swans, geese, ducks and waders. These bird populations are regarded as internationally important. Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass *Zostera* occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent. Areas of saltmarsh fringe the estuary, mostly grazed with a range of vegetation communities. There are gradual and stepped transitions between bare mudflat to upper marsh and grassland. Main vegetation types are: upper saltmarsh with *Festuca rubra* and *Juncus gerardii*; middle marsh dominated by *Puccinellia maritima*

Site Name: Severn Estuary **Location (Lat & long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK9015022** **Size: 24662.98 ha** **Designation: SPA**	**Habitats Regulations Assessment: Data Proforma**
	with *Glaux maritima* and *Triglochin maritima*; dense monocultures of *Spartina anglica* at the edge of the mudflats-brackish pools and depressions with *Phragmites australis* and *Bolboschoenus maritimus*.
Qualifying Features	Annex I birds and regularly occurring migratory birds not listed on Annex I: ▪ *Anas strepera* ▪ *Anser albifrons albifrons* ▪ *Calidris alpina alpina* ▪ *Cygnus columbianus bewickii* ▪ *Tadorna tadorna* ▪ *Tringa totanus*
Conservation Objectives	**SPA Interest feature 1: Internationally important population of regularly occurring Annex 1 species: Bewick's swan** The conservation objective is to maintain the Bewick's swan population and its supporting habitats in **favourable condition**, as defined below. The interest feature Bewick's swan will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the Bewick's swan population is no less than 289 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh at the Dumbles is maintained;

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	iii. the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained; iv. the extent of vegetation with an effective field size of >6 ha and with unrestricted bird sightlines > 500m at feeding, roosting and refuge sites are maintained; v. greater than 25% cover of suitable soft leaved herbs and grasses in winter season throughout the transitional saltmarsh at the Dumbles is maintained; vi. aggregations of Bewick's swan at feeding, roosting and refuge sites are not subject to significant disturbance. **SPA Interest feature 2: Internationally important population of regularly occurring migratory species: wintering European white-fronted goose** The conservation objective is to maintain the European white-fronted goose population and its supporting habitats in **favourable condition**, as defined below. The interest feature European white-fronted goose will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the wintering European white fronted goose population is no less than 3,002 individuals (ie the 5 year peak mean between 1988/9- ii. 1992/3); iii. the extent of saltmarsh at the Dumbles is maintained; iv. the extent of intertidal mudflats and sandflats at Frampton Sands, Waveridge Sands and the Noose is maintained; v. greater than 25% cover of suitable soft-leaved herbs and grasses is maintained during the winter on saltmarsh areas;

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	vi. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; vii. aggregations of European white-fronted goose at feeding or roosting sites are not subject to significant disturbance. **SPA Interest feature 3: Internationally important population of regularly occurring migratory species: wintering dunlin** The conservation objective is to maintain the dunlin population and its supporting habitats in **favourable condition**, as defined below. The interest feature dunlin will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the wintering dunlin population is no less than 41,683 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh and associated strandlines is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. the extent of vegetation with a sward height of <10cm is maintained throughout the saltmarsh; vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained; vii. the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained; viii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; ix. aggregations of dunlin at feeding or roosting sites are not subject to significant disturbance.

Site Name: Severn Estuary **Location (Lat & long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK9015022** **Size: 24662.98 ha** **Designation: SPA**	**Habitats Regulations Assessment: Data Proforma**
	SPA Interest feature 4: Internationally important population of regularly occurring migratory species: wintering redshank The conservation objective is to maintain the redshank population and its supporting habitats in **favourable condition**, as defined below. The interest feature redshank will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the wintering redshank population is no less than 2,013 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh and associated strandlines is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. the extent of vegetation with a sward height of <10cm throughout the saltmarsh is maintained; vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained; vii. the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained; viii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; ix. aggregations of redshank at feeding or roosting sites are not subject to significant disturbance. **SPA Interest feature 5: Internationally important population of regularly occurring migratory species: wintering shelduck**

Site Name: Severn Estuary **Location (Lat & long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK9015022** **Size: 24662.98 ha** **Designation: SPA**	**Habitats Regulations Assessment: Data Proforma**
	The conservation objective is to maintain the shelduck population and its supporting habitats in **favourable condition**, as defined below. The interest feature shelduck will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the wintering shelduck population is no less than 2,892 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained; vi. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; vii. aggregations of shelduck at feeding or roosting sites are not subject to significant disturbance. **SPA interest feature 6: Internationally important population of regularly occurring migratory species: wintering gadwall** The conservation objective is to maintain the gadwall population and its supporting habitats in favourable condition, as defined below: The interest feature gadwall will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	i. the 5 year peak mean population size for the wintering gadwall population is no less than 330 (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of intertidal mudflats and sandflats (Appendix 8) is maintained; iii. unrestricted bird sightlines of >200m at feeding and roosting sites are maintained; iv. aggregations of gadwall at feeding or roosting sites are not subject to significant disturbance. **SPA Interest feature 7: Internationally important assemblage of waterfowl** The conservation objective is to maintain the waterfowl assemblage and its supporting habitats in **favourable condition**, as defined below. The interest feature waterfowl assemblage will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the 5 year peak mean population size for the waterfowl assemblage is no less than 68,026 individuals (ie the 5 year peak mean between 1988/9 - 1992/3); ii. the extent of saltmarsh and their associated strandlines is maintained; iii. the extent of intertidal mudflats and sandflats is maintained; iv. the extent of hard substrate habitats is maintained; v. extent of vegetation of <10cm throughout the saltmarsh is maintained; vi. the abundance and macro-distribution of suitable invertebrates in intertidal mudflats and sandflats is maintained; vii. the abundance and macro-distribution of suitable invertebrates in hard substrate habitats is maintained; viii. greater than 25% cover of suitable soft leaved herbs and grasses during the winter on saltmarsh areas is maintained;

Site Name: Severn Estuary **Location (Lat & long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK9015022** **Size: 24662.98 ha** **Designation: SPA**	**Habitats Regulations Assessment: Data Proforma**
	ix. unrestricted bird sightlines of >500m at feeding and roosting sites are maintained; x. waterfowl aggregations at feeding or roosting sites are not subject to significant disturbance.
Vulnerabilities (includes existing pressures and trends)	**Internationally important populations of regularly occurring Annex 1 species:** ▪ **Physical loss of supporting habitats through removal** - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including the Annex 1 species, Bewick's swan. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability. ▪ **Noise or visual disturbance** - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance from both the landward and seaward side of the site. Bewick's swans are mainly affected by disturbance from the landward side and any increase in disturbance should be avoided. At present NE and CCW assess that the Annex 1 species are moderately vulnerable to noise and visual disturbance on the intertidal mudflats and sandflats and highly vulnerable to this category of operation on the saltmarsh.

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	▪ **Contamination by synthetic and/or non-synthetic toxic compounds** - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. They also identify Bewick's swans as currently moderately vulnerable to toxic contamination. **Internationally important waterfowl assemblage including populations of regularly occurring migratory species:** ▪ **Physical loss through removal** - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Eelgrass beds are being affected by siltation due to changes in sediment movement after construction of the Second Severn Crossing which has resulted in smothering. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of food and roosting habitat and thus be detrimental to the favourable condition of the SPA interest features including all the migratory species and waterfowl assemblage. All three supporting habitats are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability. ▪ **Damage by abrasion or selective extraction** - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion.

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction. ▪ **Noise or visual disturbance** - Overwintering birds are disturbed by sudden movements and sudden noises. This can have the effect of displacing the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all weather recreational pursuits. All supporting habitats are currently highly vulnerable to noise and visual disturbance. ▪ **Contamination by synthetic and/or non-synthetic toxic compounds** - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case on the Severn Estuary, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds. ▪ **Changes in nutrient and/or organic loading** - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey

Site Name: Severn Estuary Location (Lat & long): 51 13 29 N 03 02 57 W JNCC Site Code: UK9015022 Size: 24662.98 ha Designation: SPA	Habitats Regulations Assessment: Data Proforma
	and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation. ▪ **Biological disturbance through the selective extraction of species** - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.

Ramsar Sites

Site Name: Severn Estuary **Location (Lat & Long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK11081** **Size: 24662.98 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The estuary's classic funnel shape, unique in Britain, is a factor causing the Severn to have the second-largest tidal range in the world. This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders. A further consequence of the large tidal range is the extensive intertidal zone, one the largest in the UK, comprising mudflats, sand banks, shingle and rocky platforms. Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass *Zostera* occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.
Qualifying Features	International Qualifying Species (identified at designation): ▪ Tundra swan, *Cygnus columbianus bewickii* ▪ Greater white-fronted goose, *Anser albifrons albifrons* ▪ Common Shelduck, *Tadorna tadorna* ▪ Gadwall, *Anas strepera strepera*

Site Name: Severn Estuary **Location (Lat & Long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK11081** **Size: 24662.98 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
	▪ Dunlin, *Calidris alpina alpina* ▪ Common redshank, *Tringa tetanus tetanus* Internationally important fish species occurring on the site: ▪ *Alosa alosa* ▪ *Alosa fallax* ▪ *Lampetra fluviatilis* ▪ *Petromyzon marinus* Species identified subsequent to designation for possible future consideration under criterion 6: ▪ Lesser black-backed gull, *Larus fuscus graellsii* ▪ Ringed plover, *Charadrius hiaticula* ▪ Eurasian teal, *Anas crecca* ▪ Northern pintail, *Anas acuta* Nationally important plant species occurring on the site: ▪ Higher Plants: *Aster linosyris, Alopecurus bulbosus, Althaea officinalis, Buplerum tenuissimum, Hordeum marinum, Lepidium latifolium, Petroselinum segetum, Puccinellia rupestris, Trifolium squamosum, Zostera marina / angustifolia, Zostera noltei* Nationally important bird species occurring on the site: ▪ Herring gull, *Larus argentatus argentatus*

Site Name: Severn Estuary **Location (Lat & Long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK11081** **Size: 24662.98 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
	▪ Little egret, *Egretta garzetta* ▪ Ruff, *Philomachus pugnax* ▪ Whimbrel, *Numenius phaeopus* ▪ Eurasian curlew, *Numenius arquata arquata* ▪ Common greenshank, *Tringa nebularia* ▪ Eurasian wigeon, *Anas Penelope* ▪ Northern shoveler, *Anas clypeata* ▪ Common pochard, *Aythya farina* ▪ Water rail, *Rallus aquaticus* ▪ Spotted redshank, *Tringa erythropus* Nationally important invertebrate species occurring on the site: ▪ *Tenellia adspersa* ▪ *Corophium lacustre* ▪ *Gammarus insensibilis*
Conservation Objectives	**Ramsar interest feature 1: Estuaries** The conservation objective for the "estuaries" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SAC "estuaries" feature", in so far as these objectives are applicable to the area designated as Ramsar Site.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 ha Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	Ramsar interest feature 2: Assemblage of migratory fish species The conservation objective for the "assemblage of migratory fish species" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined below: The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met: i. the migratory passage of both adults and juveniles of the assemblage of migratory fish species through the Severn Estuary between the Bristol Channel and any of their spawning rivers is not obstructed or impeded by physical barriers, changes in flows, or poor water quality; ii. the size of the populations of the assemblage species in the Severn Estuary and the rivers which drain into it, is at least maintained and is at a level that is sustainable in the long term; iii. the abundance of prey species forming the principle food resources for the assemblage species within the estuary, is maintained. iv. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above. **Ramsar interest feature 3: Internationally important populations of waterfowl : Bewick's swan** The conservation objective for the "Bewick's swan" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "Bewick's swan " feature. **Ramsar interest feature 4: Internationally important populations of waterfowl: European white-fronted goose**

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 ha Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	The conservation objective for the "European white-fronted goose" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering European white-fronted goose" feature. **Ramsar interest feature 5: Internationally important populations of waterfowl: dunlin** The conservation objective for the "dunlin" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering dunlin" feature. **Ramsar interest feature 6: Internationally important populations of waterfowl: redshank** The conservation objective for the "redshank" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering redshank" feature. **Ramsar interest feature 7: Internationally important populations of waterfowl: shelduck** The conservation objective for the "shelduck" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering shelduck" feature. **Ramsar interest feature 8: Internationally important populations of waterfowl: gadwall** The conservation objective for the "gadwall" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "wintering gadwall" feature.

Site Name: Severn Estuary **Location (Lat & Long):** **51 13 29 N** **03 02 57 W** **JNCC Site Code: UK11081** **Size: 24662.98 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
	Ramsar interest feature 9: Internationally important assemblage of waterfowl The conservation objective for the "internationally important assemblage of waterfowl" feature of the Severn Estuary Ramsar Site is to maintain the feature in favourable condition, as defined by the conservation objective for the SPA "internationally important assemblage of waterfowl" feature - with special reference to the individual species listed and their population figures.
Vulnerabilities (includes existing pressures and trends)	▪ **Physical loss of supporting habitats through removal** - The physical loss of areas of intertidal habitats may be caused directly through change of land use or indirectly as a consequence of changes to sedimentation processes (e.g. coastal defences) as well as via the effects of smothering by artificial structures (e.g. jetties) or the disposal of spoils. Activities or developments resulting in physical loss of the intertidal supporting habitats are likely to reduce the availability of feeding and roosting habitats. The intertidal mudflats and sandflats and the saltmarsh are highly sensitive to removal by land reclamation and barrage construction. Information provided by NE and CCW states that large areas of the European marine site are not currently under threat, however when combined with a high level of sensitivity this leads to a moderate vulnerability. ▪ **Noise or visual disturbance** - Overwintering birds are disturbed by sudden movements and sudden noises. This can displace the birds from their feeding grounds. Disturbance can prevent the birds from feeding and in response they either a) decrease their energy intake at their present (disturbed) feeding site through displacement activity, or b) move to an alternative less favoured feeding site. Such a response affects energy budgets and thus survival. There is intermittent disturbance to the internationally important migratory species and the waterfowl assemblage from both the landward and seaward side of the site which has increased in recent years, due to the estuary becoming more populated and the development of all weather recreational pursuits. Bewick's swans are mainly affected by disturbance from the landward

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 ha Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	side and any increase in disturbance should be avoided. All supporting habitats are currently highly vulnerable to noise and visual disturbance. ▪ **Contamination by synthetic and/or non-synthetic toxic compounds** - Waterfowl are subject to the accumulation of toxins through the food chain or through direct contact with toxic substances when roosting or feeding. Their ability to feed can also be affected by the abundance or change in palatability of their prey caused by toxic contamination. At the moment there is no evidence to show that this is the case, but the estuary is vulnerable to oil spills and there is a continuous discharge of toxins into the estuary, some of which bind to the sediments. NE and CCW identify this is an area which requires further assessment. The intertidal mudflats and sandflats and the saltmarsh are currently highly vulnerable to the introduction of synthetic and non-synthetic compounds. ▪ **Damage by abrasion or selective extraction** - Saltmarsh may be physically damaged from overgrazing or eroded when boats are moored on it and when paths are worn through it to reach moored boats on foot or via vehicles. Currently all supporting habitats are considered to be moderately vulnerable to abrasion. Intertidal habitats are highly sensitive to damage by direct and indirect effects of aggregate dredging. The intertidal mudflats and sandflats and the shingle and rocky shore are therefore considered by NE and CCW to be highly vulnerable to selective extraction. ▪ **Changes in nutrient and/or organic loading** - Changes in organic or nutrient loading can change the species composition of the plants on the saltmarsh and thus the structure of the sward. Increases in nutrients can also cause excessive algal growth on the mudflats, denying the birds access to their invertebrate prey and changing the invertebrate species composition in the sediment. Though the water quality has been improved in recent years there are still local areas of concern and any increase in nutrient loading should be avoided. At present the intertidal mudflats and sandflats are moderately vulnerable to this category of operation.

Site Name: Severn Estuary Location (Lat & Long): 51 13 29 N 03 02 57 W JNCC Site Code: UK11081 Size: 24662.98 ha Designation: Ramsar	Habitats Regulations Assessment: Data Proforma
	▪ **Biological disturbance through the selective extraction of species** - Wildfowling is carried out all around the estuary. NE and CCW have not established that it has a detrimental effect on the overall bird populations but state that wildfowling needs to be exercised in a managed and sustainable manner preferably by a British Association of Shooting and Conservation (BASC) affiliated association, applying the BASC wildfowlers code of conduct. Bait digging is also carried out around the estuary. If too large an area is regularly dug over, it can change the availability of prey in the sediment as the area needs a period of recovery and recolonisation. The removal of strandline vegetation by beach cleaning removes an important habitat for invertebrates, as well as many of the invertebrates themselves, reducing the quantity and variety of prey available to the birds. Much of the saltmarsh is managed by grazing and changes in management can alter the availability of prey and suitability of roosting sites. The saltmarsh is currently highly vulnerable to the selective extraction of species.

Site Name: Midlands Meres and Mosses (Phase 1) **Location (Lat & Long):** **52 54 11 N** **02 50 25 W** **JNCC Site Code: UK11043** **Size: 1588.24 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The Meres and Mosses form a geographically divers series of lowland open water and peatland sites in the north-west Midlands of England and north-east Wales. These have developed in natural depressions in the glacial drift left by receding ice sheets which formerly covered the Cheshire / Shropshire Plain. The 16 component sites include open water bodies (meres), the majority of which are nutrient rich with associated fringing habitats, reed swamp, fen, carr and damp pasture. Peat accumulation has resulted in the nutrient-poor peat bogs (mosses) forming in some sites on the fringes of the meres or completely infilling basins. In a few cases the result is a floating quaking bog or schwingmoor. The wide range of resulting habitats support nationally important flora and fauna.
Qualifying Features	Nationally important plant species occurring on the site: ▪ Higher Plants: *Elatine hexandra, Eleocharis acicularis, Cicuta virosa, Thelypteris palustris, Carex elongate* Nationally important invertebrate species occurring on the site: ▪ *Hagenella clathrata* ▪ *Limnophila fasciata* ▪ *Cararita limnaea* ▪ *Lathrobium rufipenne* ▪ *Donacia aquatica* ▪ *Prionocera pubescens* ▪ *Gonomyia abbreviata* ▪ *Sitticus floricola*

Site Name: Midlands Meres and Mosses (Phase 1) **Location (Lat & Long):** **52 54 11 N** **02 50 25 W** **JNCC Site Code: UK11043** **Size: 1588.24 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
Conservation Objectives	Conservation measures on-site: SSSI designation, NNR designation, Land owned by a non-governmental organization for nature conservation, management agreement, site management statement / plan implemented Conservation measures off-site: Management agreement.
Vulnerabilities (includes existing pressures and trends)	The component wetlands (and surrounding catchments) are vulnerable to changes particularly in water levels and water quality. Nutrient enrichment from agricultural, industrial, and domestic sources, lowering of water tables through drainage and nearby mineral extraction, and siltation of meres following ploughing in the catchment have been ongoing problems. Reduction of these anthropogenic threats is being achieved through Water Level Management Plans or Catchment Management Strategies. The restoration of water levels and prevention of vegetation succession is being achieved through implementation of Site Management Statements and management agreements. Introduced species of plants and animals have also caused problems; fish stocking can modify the entire aquatic ecosystem and grazing by Canada geese causes a threat to reed fringes. Invasive introduced plant species include *Crassula helmsii* New Zealand pygmyweed, *Rhododendron* and self-seeded pines from nearby afforested areas. Appropriate control programmes are being continually refined and implemented.

Site Name: Midlands Meres and Mosses (Phase 2) **Location (Lat / Long):** **52 55 20 N** **02 45 43 W** **JNCC Site Code: UK11080** **Size: 1588.24 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
Site Description	The Meres and Mosses form a geographically divers series of lowland open water and peatland sites in the north-west Midlands of England and north-east Wales. These have developed in natural depressions in the glacial drift left by receding ice sheets which formerly covered the Cheshire / Shropshire Plain. The 18 component sites include open water bodies (meres), the majority of which are nutrient rich with associated fringing habitats, reed swamp, fen, carr and damp pasture. Peat accumulation has resulted in the nutrient-poor peat bogs (mosses) forming in some sites on the fringes of the meres or completely infilling basins. In a few cases the result is a floating quaking bog or schwingmoor. The wide range of resulting habitats support nationally important flora and fauna.
Qualifying Features	Nationally important species occurring on the site: ▪ Higher Plants: *Calamagrostis stricta. Carex elongate. Cicuta virosa. Thelypteris thelypteriodes (palustris)* ▪ Lower Plants: *Sphagnum pulchrum. Dicranum undulatum.* Bird species currently occurring at levels of national importance: ▪ Cormorant, *Phalacrocorax carbo* ▪ Gadwall, *Anas strepera* ▪ Pochard, *Aythya ferina* ▪ Shoveler, *Anas clypeata* Nationally important invertebrates: ▪ *Limnophila heterogyna* ▪ *Atylotus plebeius*

Site Name: Midlands Meres and Mosses (Phase 2) **Location (Lat / Long):** **52 55 20 N** **02 45 43 W** **JNCC Site Code: UK11080** **Size: 1588.24 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
	▪ *Hagenella clathrata* ▪ *Limnophila fasciata* ▪ *Carorita limnaea* ▪ *Glyphipteryx lathamella* ▪ *Trichiosoma vitellinae* ▪ *Eilema serica* ▪ *Brachythops wusteneii* ▪ *Pachinematus xanthocarpos* ▪ *Sittcus floricola* ▪ *Lampronia fuscatella* ▪ *Hybomitra lurida*
Conservation Objectives	Conservation measures on-site: SSSI / ASSI designation, NNR designation, Land owned by a non-governmental organization for nature conservation, management agreement, site management statement / plan implemented Conservation measures off-site: Management agreement. The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency.
Vulnerabilities (includes existing pressures and trends)	The component wetlands (and surrounding catchments) are vulnerable to changes particularly in water levels and water quality.

Site Name: Midlands Meres and Mosses (Phase 2) **Location (Lat / Long):** **52 55 20 N** **02 45 43 W** **JNCC Site Code: UK11080** **Size: 1588.24 ha** **Designation: Ramsar**	**Habitats Regulations Assessment: Data Proforma**
	Nutrient enrichment from agricultural, industrial, and domestic sources, lowering of water tables through drainage and nearby mineral extraction, and siltation of meres following ploughing in the catchment have been ongoing problems. Reduction of these anthropogenic threats is being achieved through Water Level Management Plans or Catchment Management Strategies. The restoration of water levels and prevention of vegetation succession is being achieved through implementation of Site Management Statements and management agreements. Introduced species of plants and animals have also caused problems; fish stocking can modify the entire aquatic ecosystem and grazing by Canada geese causes a threat to reed fringes. Invasive introduced plant species include *Crassula helmsii* New Zealand pygmyweed, *Rhododendron* and self-seeded pines from nearby afforested areas. Appropriate control programmes are being continually refined and implemented.

Appendix II: Plans and Programmes Review

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
Adopted Shropshire Core Strategy	• 27,500 dwellings • 290 hectares of employment land • Additional sand & gravel resource extraction sites	Proposed housing, employment and infrastructure development has the potential to: increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase pressure on sewerage capacity; increase water abstraction; result in the loss of supporting habitat and modify drainage.
Adopted Stafford Local Plan	• 10,000 dwellings • 160 hectares of employment land	Proposed housing, employment and infrastructure development has the potential to: increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase pressure on sewerage capacity; increase water abstraction; result in the loss of supporting habitat and modify drainage.
South Staffordshire Adopted Local Plan	• 3850 dwellings	• Nearly all of these dwellings and employment land have already been completed or committed and as such they will be within the baseline consideration.
Telford & Wrekin LTP3 2011 - 2026	• Major road and transport schemes/ interchanges	• Proposed transport infrastructure could increase disturbance (recreational, noise, light); increase atmospheric pollution (diffuse); increase transfer of pollutants through surface water run-off; result in the loss of supporting habitat and modify drainage. • Potential for in-combination effects will be considered through the HRA for the Draft Local Plan.
Shoreline Management Plans	• Proposals for coastal defence management	• Mudflats, sandflats and sandbanks not currently covered by seawater at low tide may experience changes arising from the SMP which would then alter the baseline evidence. Potential impacts on Severn Estuary SAC/SPA/Ramsar. • Potential for in-combination effects will be considered through the HRA for the Draft Local Plan.

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
Relevant Catchment Flood Management Plans & Catchment Abstraction Management Strategies (EA)	• CMFPs consider all types of inland flooding • CAMS assess how much water is readily available on a catchment basis and also introduce time-limited licenses	• Time-limited licenses will allow more flexibility for the EA to respond where abstraction is having an impact on European sites. • The Draft Local Plan should inform the CAMS to ensure that the EA have the appropriate evidence on which to judge abstraction levels. • Potential for in-combination effects will be considered through the HRA for the Draft Local Plan.
Severn Estuary Flood Risk Management Strategy (EA)	• A 100 year plan of investment for flood defences by the Environment Agency and Local Authorities • The prioritisation of other flood risk management measures such as providing advice to utility companies to protect critical infrastructure, development control advice and flood warning investment • Creation of new inter-tidal wildlife habitats to compensate for loss of wildlife habitats through rising sea levels.	• Mudflats, sandflats and sandbanks not currently covered by seawater at low tide may experience changes arising from the various plans which would then alter the baseline evidence. • Potential for in-combination effects will be considered through the HRA for the Draft Local Plan.
Severn Estuary River Basin Management Plan	• Proposals relating to the Severn Estuary and its related pressures.	• The potential for this plan to improve the habitat quality for this European site will have a bearing on the future potential impact of policies and the baseline against which it is measured. • A Habitats Regulations Assessment of this plan has been carried out to consider whether it is likely to have a significant effect on any Natura 2000 sites. The assessment was undertaken by the Environment Agency, in consultation with Natural England and the Countryside Council for Wales.

Plan/Project	Proposal	Potential impacts that could cause 'in-combination' effects
		• The assessment concluded that the River Basin Management Plan is unlikely to have any significant negative effects on any Natura 2000 sites and that Plan itself does not require further assessment under the Habitats Regulations. This conclusion is reliant on the fact that before any measures in the Plan are implemented they must be subject to the requirements of the Habitats Regulations. Any plans, project or permissions required to implement the measures must undergo an appropriate assessment if they are likely to have a significant effect.
Severn Trent Water Resource Management Plan Final Version (2014)	• The WRMP sets out Severn Trent Water's strategy for ensuring the security of water supplies over the next 25 years.	• Any schemes that have the potential to have a significant effect on any Natura 2000 sites will be subject to further screening at project design to determine whether, based on the additional design information, the scheme could have a likely significant effect. Any scheme that could have an adverse effect on the integrity of a European or International site will not be in accordance with the objectives of our WRMP and will not be taken forward.

Appendix III: Draft Local Plan Policy Screening

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
Strategic Policies		
SP1 - Telford	The policy sets the town of Telford as the main focus for the majority of development needs over the Plan period, and identifies land to deliver approximately 13,313 new homes in Telford up to 2031 (including a number of strategic extensions to the town that the Council considers are appropriate for development). The policy also supports the delivery of approximately 110 hectares of new employment land up to 2031, retaining the towns existing role of Principle Service Centre in the borough. The delivery of housing and employment development has the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.	Yes
SP2 - Newport	The policy supports the role of the Newport area as a Market Town, planning for approximately 10 hectares of additional employment land, and housing development limited to that required to meet local needs; identified as approximately 1,182 new homes up to 2031. Sites over and above those committed or identified in the Plan will be prioritised on previously developed sites within the town. Though the policy seeks to respect and enhance the quality of the towns natural environment, the delivery of housing and employment has the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.	Yes
SP3 - Development in the Rural Area	The policy restricts development in the rural area to that required to meet local needs, identified as 902 new homes up to 2031. The policy also adopts a preference for the re-use of previously developed land in sustainable locations. Although the policy and mitigation provided through the Plan should help to ensure the protection of the natural environment, the delivery of housing through this policy has the potential to act in-combination with other policies resulting in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality.	Yes

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
SP4 - Presumption in favour of sustainable development	This is a standard policy supporting a presumption in favour of sustainable development, reflecting the intentions of the National Planning Policy Framework (2012). The policy seeks to work proactively with applicants and communities to approve planning proposals that improve the social, economic and environmental conditions in the area. Though a proactive approach may lead to increased development, the mitigation and safeguards provided through the Local Plan and at the national level should help to ensure that there are no likely significant effects on European sites.	No
Economic Policies		
EC1 - Employment site allocations policy	The policy identifies the provision of a minimum of 110 ha of new employment land during the life of the plan. It also proposes preferred locations for this growth in Appendix C and on the policies map. The delivery of 110 ha of new employment land has the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality. None of the employment allocations proposed in Appendix C were considered likely to have LSEs alone given their distance from European sites. The potential for in-combination effects for the overall level of proposed growth will considered in further detail.	Yes
EC2 - Employment uses on unallocated sites	The policy sets the criteria that employment development on unallocated sites must meet in order to gain planning permission, again adopting a preference for previously developed land. The policy does not propose development itself, and is unlikely to result in any significant negative effects on European designated sites.	No
EC3 - Employment in the rural area	The policy sets the criteria that employment development in the rural area must meet in order to gain planning permission, again adopting a preference for previously developed land. The policy does not propose development itself, and is unlikely to result in any significant negative effects on European designated sites.	No
EC4 - Hierarchy of centres	The Policy defines a hierarchy of centres where the majority of development will be focussed. The policy supports proposals which make a positive contribution to the diversity and vitality of these centres. At the top of the hierarchy is the Principle Town Centre of Telford followed by the Market Towns of Newport and Wellington and then the District Centres of Dawley, Donnington, Hadley, Madeley and Oakengates, and Ironbridge, and lastly Local Centres. Development which contributes to the vitality and the viability of these centres is unlikely to lead to significant effects on European designated sites, and the allocations identified through the Local Plan have been screened within Policy EC1 and HO3.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
EC5 – Telford Town Centre Shopping Core	The policy permits the development of comparison and convenience retail development within Telford Town Centre according to local need, and as part of mixed-use development. The policy seeks to deliver a maximum of 25,000 sq. m of comparison retail development in the area over the period to 2031. The policy is likely to lead to development within the Town Centre and given its distance from the closest European designated site and mitigation provided through the Plan policies, it is unlikely to result in any significant negative effects.	No
EC6 – Non-retail uses	The policy sets the criteria for changes of use in designated primary shop frontage and secondary shop frontage areas, and directs non-retail development to centres within the centres hierarchy (as defined in Policy EC4). The policy itself will not lead to development and is unlikely to lead to significant negative effects on European designated sites.	No.
EC7 – Shopping Centre design	The policy sets the criteria that proposals for new shopsfronts and alterations to existing shopfronts must meet in order to gain planning permission. The policy will not lead to development itself, and is unlikely to lead to significant negative effects on European designated sites.	No
EC8 – Evening and night-time economy (ENTE)	The policy requires that evening and night-time economy related development be assessed for its potential impact, including cumulative impact on the character and function of the area. The policy will not lead to development itself, and is unlikely to lead to significant negative effects on European designated sites.	No
EC9 – Community Life	The policy seeks to retain certain use classes (A1, A2, A3, A4 or D1) that support community life, and adopts a proactive approach to support proposals that seek to improve the wellbeing and cohesion of local communities. The policy itself does not propose development and is unlikely to lead to significant negative effects on European designated sites.	No
EC10 – Out of town and edge of centre development	The policy seeks to support the hierarchy of centres by restricting out of town and edge of centre developments, requiring an impact assessment of such development, permitting it only where suitable alternatives cannot be found and a need is identified. No sites are identified at this stage, however the required impact assessment, mitigation provided through plan policies and the requirement for project level HRA should ensure that there will be no significant negative effects on European designated sites.	No
EC11 – Tourism links	The policy seeks to enhance links and connectivity between Southwater, Telford Town Park and the UNESCO World Heritage Site of Ironbridge Gorge via the Silkin Way Cycle route. The focus is in improving connections along existing corridors, and given the distance from the closest European designated sites it is unlikely to have any significant negative effects on European designated sites. Promoting continued improvement of cycle routes can contribute to reducing reliance on the private vehicle and thus air pollution and its associated effects on biodiveristy.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
EC12 – Leisure, cultural and tourism development	The policy sets the criteria that new cultural, tourism and leisure development proposals must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites.	No
EC13 – Tourist Accommodation	The policy identifies the locations and circumstances in which hotel and accommodation development would be supported. The policy itself does not propose development, and is unlikely to lead to any significant negative effects on European designated sites.	No
Housing Policies		
HO1 – Housing Requirement	The policy makes provision for the delivery of at least 15,555 new dwellings across the borough up to 2031 (individual sites are considered within Policy HO2). The policy is likely to result in development in the borough and intensification in some areas, with the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality. It should be noted that the majority of the development proposed through this policy is either completed (3,243 dwellings) or already has planning permission (8,339 dwellings).	Yes
HO2 – Housing Site Allocations	The policy identifies the sites deemed acceptable in principle for residential development. The policy is likely to lead to development on the identified sites with the potential to result in: ▪ Atmospheric pollution through increased traffic, which could reduce air quality. ▪ Increased levels of disturbance through recreational activity, noise and light pollution. ▪ Increased levels of abstraction, surface water runoff and sewerage discharge, which could reduce water levels and quality. As there are no European sites within the plan area the precise location of development is less of an influence on the likelihood or significance of impacts. It should be noted that the Midlands Mere and Mosses Ramsar site (Phase 2) is within 1km to the plan boundary, to the north east of Newport. However, the only housing site allocation proposed through the policy is to the south of the Newport approx. 2 km away from the Ramsar site. None of the housing allocations proposed in Appendix D are likely to have LSEs alone given their distance from European sites. The potential for in-combination effects for the overall level of proposed growth will considered in further detail in Appendix IV.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
HO3 – Housing Trajectory	The policy identifies targets for the phased delivery of the required housing development over the Plan period. The policy itself will not lead to development, and phasing development needs over time can reduce the extent of impacts on the natural environment and local ecosystems.	No
HO4 – Housing mix	The policy seeks to support the provision of a mix of housing types, sizes and tenures to meet a range of household needs. The policy itself will not lead to development, and is unlikely to have any significant negative effects on European designated sites.	No
HO5 – Affordable housing thresholds and percentages	The policy sets the thresholds and percentages for the delivery of affordable housing in housing development schemes. The policy itself will not lead to development and is unlikely to have any significant negative effects on European designated sites.	No
HO6 – Delivery of affordable housing	The policy identifies a presumption for the delivery of new affordable housing on-site unless compelling reasons indicate that this would be inappropriate. The policy further supports the retention of affordable housing once built and appropriate integration of affordable housing in housing developments. The policy itself will not lead to development and is unlikely to lead to any significant negative effects on European designated sites.	No
HO7 – Specialist Housing Needs	The policy sets the criteria that development of specialist housing (e.g. residential care homes) must meet in order to gain planning permission. The policy itself will not lead to development and is unlikely to lead to any significant negative effects on European designated sites.	No
HO8 – Meeting the needs of the Gypsy and Traveller community	The policy seeks to deliver 32 new permanent Gypsy and Traveller pitches, 11 of which will specifically accommodate transit movements. The locations of the sites will be identified in a separate Gypsy and Traveller Development Plan Document (DPD), and until the locations are made available it is difficult to determine the likelihood and significance of potential effects on European designated sites. The separate G&T DPD will be subject to HRA, which will ensure that there are no LSEs on European sites.	No
HO9 –Gypsy and Traveller developments	The policy sets the criteria that development of Gypsy and Traveller sites must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites.	No
HO10 – Housing in the rural area	The policy supports development in the rural area where it complies with national policy, Plan policies and is sustainable, and identifies rural areas where development may be suitable, though no sites are allocated. The policy also sets the criteria that residential development in the rural area must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to lead to significant negative effects on European designated sites. Development proposals for these areas would be dealt with on a case by case basis through development management and would need to satisfy the requirements of the HRA Regulations.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
HO12 – Rural exceptions	The policy outlines types of residential development (over and above the normal rural housing outlined in Policy HO10) that may be supported in the rural area. This includes; solely affordable rural housing, custom build housing, conversion and re-use of redundant buildings and agricultural and forestry workers accommodation. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
Natural Environment Policies		
NE1 – Provision of green infrastructure	The policy seeks to promote, protect and enhance green infrastructure, and ensure that development includes and integrates green infrastructure and contributes to local and strategic open space needs. The policy supports the creation of natural habitats and may lead to positive effects on European designated sites.	No
NE2 – Management and maintenance of green infrastructure	The policy requires development to provide adequate management and / or financial provision for the ongoing future management and maintenance of green infrastructure created by or the responsibility of a development. The policy supports the connectivity of green infrastructure assets with the potential for positive effects on European designated sites.	No
NE3 – Green Network	The policy seeks to protect, maintain, enhance and where possible extend the Green Network across the borough, and restricts development within the Green Network. The policy supports natural habitats and will help to mitigate some of the negative impacts arising through other policies.	No
NE4 – Strategic Landscapes	The policy seeks to protect and enhance strategic landscapes within the borough and restricts development that may degrade these landscapes either directly or indirectly. As a protective policy it is unlikely to lead to significant effects on European designated sites.	No
NE5 – Biodiversity and geodiversity assets	The policy identifies through the Policies Map biodiversity and geodiversity assets that will be protected, maintained and improved. The policy affords the highest levels of protection to nationally protected sites and species, and expects development to: ▪ Provide opportunities, including through design, layout and landscaping to incorporate new biodiversity features or enhance existing ▪ Maintain, protect and, where appropriate enhance habitats and species of principle importance ▪ Provide appropriate buffer zones between development proposals and designated sites as well as habitats and species of principle importance for nature conservation ▪ Ensure that all existing and new development are ecologically permeable through the protection and enhancement of existing and the provision of new continuous wildlife corridors, key ecological habitats and stepping stones, which shall be integrated and linked to the wider green infrastructure assets	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
	▪ Maintain and where identified, enhance recognized geodiversity assets ▪ Where appropriate, provide an ecological survey and impact assessment detailing the importance of the natural asset, the nature of the measures proposed (including plans for long term management), demonstrating any necessary mitigation or compensatory measures proposed Development that presents significant economic or social benefits may through thorough and robust consultation be permitted where impacts can be mitigated or compensated for. Where development proposes significant harm to an irreplaceable habitat which cannot be mitigated or compensated for, permission will be refused. The policy will help to mitigate the negative impacts of other policies.	
NE6 – Trees, hedgerows and woodlands	The policy seeks to protect, retain and manage existing trees, hedgerows and woodland that contribute to green infrastructure assets, and places restrictions on felling and removal of these assets, supporting the natural environment. The policy also requires development to incorporate trees as an integral part of schemes in accordance with the Council's Tree & Woodland strategies, and provide a tree or hedgerow assessment alongside planning applications on sites that contain these assets or are adjacent to them, having potential to be affected by development. The policy supports the continued management and improvement of these natural habitats and associated species.	No
NE7 – Existing public open space	The policy seeks to maintain, enhance and protect formal and informal sports and recreation facilities and public open space and restricts the loss of these spaces. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
NE8 – Provision of public open space	The policy requires new development to make quantitative and / or qualitative improvements to the provision of open space. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites. The policy has the potential to help mitigate increases in recreational activity at European sites as result of development proposed in other policies.	No
Community Policies		
COM1 – Social infrastructure	The policy restricts development that affects existing community infrastructure. The policy itself will not lead to development and is unlikely to lead to any significant negative effects on European designated sites.	No
COM2 – Cultural facilities	The policy supports development that enhances the provision and quality of cultural facilities. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
Connection Policies		
C1 – Promoting alternative to the car	The policy sets the expectations for development in reducing the need to travel by car, recognising the role of development in the delivery of active, cohesive and connected communities, which can support a reduction in atmospheric pollution..	No
C2 – Safeguarding rail and transport corridors	The policy safeguards land required for the implementation of priority transport projects and protects current and former rail lines in their role as transport corridors. At this stage no development is being proposed and future projects would be subject to the requirements of the HRA Regulations.	No
C3 – Impact of development on highways	The policy seeks to manage the impact of development on the highways network, expecting developers to: ▪ Work with Highways England and Telford and Wrekin Council to mitigate the cumulative impact of new developments on the transport system ▪ Assess cumulative impacts using the Telford Strategic Transport Model or other methods if deemed more robust ▪ Mitigate the local and non-strategic impact of their developments on the transport system including any individual commuted sums specified by the local highway authority Managing road capacity can contribute to a reduction in congestion and atmospheric pollution which can indirectly support the natural environment and ecosystems. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
C4 – Strategic and primary road networks	The policy requires development to ensure that access is provided in a manner that protects the Council's Road Hierarchy, safeguarding the role of the Strategic Road Network and Primary Route Network and addressing local characteristics and constraints. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
C5 – Design of roads and streets	The policy sets the design standards for roads that development proposals must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites.	No
C6 – Design of cycle and car parking	The policy sets the criteria that parking (both car and cycle) within new development must meet in order to gain planning permission, the policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
C7 – Commuted parking payments	The policy outlines the circumstances in which the imposition of parking standards may be relaxed. The policy itself will not lead to development and is unlikely to result in any significant negative effects on European designated sites.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
C8 – Enhancing communication networks	The policy supports proposals that improve the coverage of broadband and mobile signal where development would lead to better access for businesses and residents. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
C9 – New telecommunications development	The policy sets the criteria that electronic communications development proposals will need to meet in order to gain planning permission. The criteria includes avoiding unacceptable effects on areas of ecological interest, archaeological significance or landscape importance. Though this type of development has the potential for significant effects, the policy itself does not propose development. Any proposals will have to meet the requirements of the HRA Regulations through the Development Management process.	No
Built Environment Policies		
BE1 – Urban Design	The policy sets the design criteria that new development should comply with in order to gain planning permission, including: ▪ Being designed to the highest possible standards, being informed by and responding to local distinctiveness ▪ Encouraging walking and cycling in the layout and design of streets and open space ▪ Design that adopts active and passive measures to reduce the need for non-renewable energy resources and makes effective use of resources including water ▪ Minimising visual intrusion, noise, vibrations and pollution ▪ Promoting diversity and choice through delivery of a balanced mix of compatible buildings and uses ▪ Optimises the benefits of and comprehensively integrates green infrastructure The policy itself will not lead to development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE2 – Residential Alterations	The policy sets criteria for any alterations or extensions to houses. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites.	No
BE3 – Listed Buildings	The policy seeks to protect listed buildings. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites.	No
BE3 – Buildings of Local Interest	The policy seeks to preserve and enhance Buildings of Local Interest and resist development that could negatively affect these assets. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
BE4 – Parks and gardens of historic interest	The policy seeks to protect and enhance historic parks and gardens and resist development which could negatively affect these assets. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE5 – Conservation Areas	The policy seeks to preserve and enhance the character of Conservation Areas and restrict development that may have negative effects on these areas. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE6 – Ironbridge Gorge World Heritage Site	The policy requires new development to preserve and enhance the character of the area. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE7 – Archaeology & Scheduled Ancient Monuments	The policy seeks to protect and enhance Scheduled Monuments, other sites of national, regional or particular local archaeological importance and their setting, and restricts development that adversely affect these sites or their setting. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE8 – Land stability	The policy ensures that land stability is considered in development proposals within the Mining Constraints Area or areas suspected of poor ground conditions. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
BE9 – Land contamination	The policy identifies the factors that need to be considered in the effective and most appropriate re-use of brownfield sites. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
Environmental Resources Policies		
ER1 – Renewable energy	The policy sets the principles for the mitigation of and adaptation to climate change that all development must be met in order to gain planning permission. This includes a minimum BREEAM 'very good' rating in all new non-residential development unless an 'excellent' rating is viable, as well as decentralized renewable energy generating and carbon efficiency schemes where feasible. Though this type of development has the potential for significant effects, the policy itself does not propose development locations. Individual proposals would be subject to the requirements of the HRA Regulations through the Development Management process.	No
ER2 – Mineral safeguarding	The policy restricts; non-mineral development within Mineral Safeguarding Areas and identified buffer zones, proposals which could have the effect of sterilizing mineral resources, and proposals that could affect mineral related infrastructure. The policy itself does not propose development and is unlikely to result in any significant negative effects on European designated sites. The policy does not imply that permission for any mineral development in these areas will be granted either.	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
ER3 – Maintaining supplies of crushed rock	The policy requires that supplies of crushed rock during the plan period should be provided from existing permitted reserves. It also sets out the exceptional circumstances for any further proposals to be granted permission. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER4 – Sand and gravel resources	The policy outlines the exceptional circumstances in which proposals for new sand and gravel sites may be supported. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER5 – Maintaining supplies of brick clay	The policy proposes that extraction of brick clay will continue during the plan period at an existing quarry. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER6 – Mineral Development	Policy sets out criteria for any mineral development proposals. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER7 – Waste management facilities	The policy highlights the considerations that must be demonstrated in proposals for waste management facilities in order to gain planning permission, which includes the siting of new facilities on previously developed land. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER8 – Waste planning for residential developments	The policy sets the expectations for waste planning in residential proposals that development must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER9 – Waste planning for commercial, industrial and retail developments	The policy sets the expectations for waste planning in commercial, industrial and retail proposals that development must meet in order to gain planning permission. The policy itself does not propose development and is unlikely to lead to any significant negative effects on European designated sites.	No
ER10 – Water conservation and efficiency	The policy seeks development that makes a positive contribution to the security of water supplies, the conservation of water through water efficient design, and the protection of existing water sources. The policy also sets expectations for the efficient use of water that must be met in schemes of 100 or more homes or 10,000 sq. m of non-housing uses in order to gain planning permission. These include incorporating design features that reduce water consumption and support the recycling / re-use of water, and providing features for the collection of rainwater. This should help mitigate the negative impacts of other policies.	No
ER11 – Sewerage systems and water quality	The policy sets expectations in supporting the capacity and resilience of local sewerage infrastructure that all new development must meet in order to gain planning permission. This includes identifying drainage methods, the separation of sewerage and surface water flows, the phasing of	No

Preferred Option Policy/ Allocation	Potential impacts of the Policy/ Allocation	Potential for LSE?
	development to allow for any necessary capacity improvement (which is a key issue for the borough as identified in the Water Cycle Study and 2015 Sustainability Appraisal) and water quality protection measures. This should help mitigate the negative impact of other policies.	
ER12 – Flood risk management	The policy sets the expectations for effective on-site management of surface water that new development must meet in order to gain planning permission. This includes: ▪ Detailed on-site surface water runoff management schemes which can be adopted by the council ▪ Ensuring that the rate of discharge meets agreed standards, and that discharge locations have the necessary capacity ▪ Ensuring that all Sustainable Drainage Systems are designed to the agreed standards, and can be managed and maintained throughout the lifetime of the development ▪ Ensuring that all surfaces are designed to agreed standards ▪ Demonstrating that development has avoided the loss of open water courses, and reopened culverted, piped or covered water courses where technically feasible and viable ▪ Enhancing the hydrological, ecological, visual and recreational value of any adjacent / new water bodies This should help mitigate the negative impact of other policies.	No

Appendix IV: European Sites Screening

Screening Summary Key

Likely Significant Effect	**Yes**	Further Appropriate Assessment required
No Likely Significant Effect	**No**	No further Appropriate Assessment required as no pathways identified
Significant Effect Uncertain	**?**	Precautionary approach taken and further Appropriate Assessment required

Cannock Chase SAC								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance and be less than 1% of the minimum critical loads or levels	Yes, European dry heaths and Northern Atlantic wet heaths with Erica tetralix are sensitive to atmospheric pollution. Critical loads for nitrogen are being exceeded for both the dry and wet heaths at the site[2]. Critical loads for acid deposition are not being exceeded at the site for either habitat[3].	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking. ▪ NE5 – Biodiversity and Geodiversity Assets – Protects and enhances valued assets,	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans. However, the level of development proposed through the plan is not	See previous avoidance/ mitigation column. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note	**No**

[2] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]
[3] Ibid.

	alone for nitrogen at the site. Evidence suggests that localised deposition from traffic is likely to be the main cause for critical loads being exceeded[1].			development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species. ▪ NE6 – Trees, Hedgerows and Woodlands – managing and protecting existing assets and restricting felling. Supports improved air quality. ▪ C1 – Promoting alternatives to the car – promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking ▪ C3 –Impact of development on Highways – seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution ▪ BE1 – Urban Design – promotes design that encourages walking and cycling and efficient energy consumption.		considered likely to contribute more than 1% of the minimum critical loads or levels alone at the site for nitrogen and is therefore considered not likely to have in-combination effects through diffuse pollution.	that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan will not have LSEs on this site in-combination with other plans and programmes as a result of increased diffuse atmospheric pollution.	

[1] Liley, D., Underhill-Day, J., White, J. & Sharp, J. (2009) Evidence Base relating to Cannock Chase SAC and the Appropriate Assessment of Local Authority Core Strategies. Footprint Ecology.

				▪ ER1 – Renewable Energy – promoting cleaner energy generation and consumption. The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes as well as facilities/services should help to reduce the need to travel by private car with long term positive effects on air quality. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan alone will not have LSEs on this site as a result of				

				increased diffuse atmospheric pollution.				
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Evidence suggests that recreational activities at the site are currently having adverse impacts on the SAC. A survey suggests that the majority of visitor trips (75%) originate from within 15km of the SAC. A mitigation strategy was produced which suggests collecting developer contributions from all housing development within 15km of the SAC[4]. Taking this evidence into account along with the distance of the Plan area from the SAC (Approx 20 km) it is considered that there are no pathways for likely significant effects as a result of the plan alone. Proposed development could contribute to potential in-combination effects; however, the contribution is unlikely to be of significance.	Yes, disturbance has resulted in erosion, new track creation and vegetation damage.	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses development in existing centres where there are more local recreation opportunities. ▪ NE1, NE2 and NE3 – Green Infrastructure / Green Network – protecting and enhancing local and strategic open space needs as well as the requirement for new development to contribute to the provision and enhancement of new and existing open space and recreational facilities. ▪ NE5 – Biodiversity and Geodiversity Assets – protecting, maintaining and enhancing valued habitats and species, supporting local assets and the recreational values that they hold. ▪ NE7 – Existing Public Open Space – protecting and maintaining local open	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column. Given the distance of the site from the Plan area (approx. 20 km) and mitigation provided by Draft plan policies it is considered unlikely that there will be significant in combination effects through increased recreation.	**No**

[4] Underhill-Day, J. & Liley, D. (2012). Cannock Chase Visitor Impacts Mitigation Report. Footprint Ecology. Unpublished report.

				space provisions that provide local sport and recreational opportunities. ▪ NE8 – Provision of public open space – requires new development to provide and/or contribute to the provision of useful and functional open space. ▪ COM1 – Social Infrastructure – restricting development that affects existing community infrastructure and local recreational facilities. The mitigation provided by the Plan policies above is considered sufficient to address/ prevent LSEs alone on the site.				
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2,	There are no pathways for impacts on surface water runoff or water quality at the site. The Site Improvement Plan (SIP) for the Cannock Chase SAC[5] does not indicate that there is an issue for the site in relation to water quality. The site is situated within the Shelton Water Resource Zone. Development therefore has the potential for increased levels of abstraction.	Yes, Erica tetralix is restricted to wetter or waterlogged ground, therefore abstraction that causes drying will affect distribution and abundance. However, it should be noted that the Site Improvement Plan (SIP) for the Cannock Chase SAC[6] does not indicate that abstraction is causing any issues in relation to	**Yes**	Mitigation provided by Draft Local Plan policies include: ▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ BE1 – Urban Design – encourages design that makes effective use of water resources. ▪ ER10 – Water Conservation and	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2 with regard to water abstraction, including neighbouring authorities' development plans	See previous avoidance/ mitigation column. This is supported by similar policy level mitigation in other development plans. Given the current regulatory process in place, such as	**No**

[5] http://publications.naturalengland.org.uk/publication/4957799888977920
[6] http://publications.naturalengland.org.uk/publication/4957799888977920

SP3, SP4, EC1, HO1 and HO3		the integrity of the site. However, it does identify that hydrological changes can affect the site and that there has been a reduction in the extent of the valley mire and changes in the vegetation in the Sher Brook Valley which indicate a move towards a drier wetland vegetation.		Efficiency – expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/ re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and that abstraction is not identified as an issue currently affecting the site[7], it is considered unlikely that there will be LSEs alone on the SAC through reduced water levels.		that place further pressure on water resources through increased abstraction levels.	the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and that abstraction is not identified as an issue currently affecting the site[8], it is considered unlikely that there will be LSEs on the SAC through reduced water levels as a result of the plan acting in-combination with other plans and programmes.	

[7] Ibid.
[8] Ibid.

Mottey Meadows SAC								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. There is potential for impacts as a result of long range (diffuse) atmospheric pollution.	Yes, acid and calcareous lowland hay meadows are sensitive to atmospheric pollution. Critical loads for acid deposition are being exceeded for acid grassland habitats but not for calcareous grassland[9]. Critical loads for nitrogen are not being exceeded at the site for either the acid or calcareous grassland habitats[10]. The Site Improvement Plan for Mottey Meadows SAC[11] does not highlight air quality as being an issue for the site.	**Yes**	Mitigation provided by Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking. ▪ NE5 – Biodiversity and Geodiversity Assets – Protects and enhances valued assets, development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species. ▪ NE6 – Trees, Hedgerows and Woodlands – managing and protecting existing assets and restricting felling.	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved and that the SIP does not identify air quality as a current issue for	**No**

[9] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]
[10] Ibid.
[11] http://publications.naturalengland.org.uk/publication/6519033218203648

				Supports improved air quality. ▪ C1 – Promoting alternatives to the car – promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking ▪ C3 –Impact of development on Highways – seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution ▪ BE1 – Urban Design – promotes design that encourages walking and cycling and efficient energy consumption. ▪ ER1 – Renewable Energy – promoting cleaner energy generation and consumption. The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes as well as facilities/services			the SAC. Given the points above it is considered that the plan will not have LSEs on this site in-combination with other plans and programmes as a result of increased diffuse atmospheric pollution.	

				should help to reduce the need to travel by private car with long term positive effects on air quality. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved and that the SIP does not identify air quality as a current issue for the SAC. Given the points above it is considered that the plan alone will not have LSEs on this site as a result of increased diffuse atmospheric pollution.				
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2,	The site contains valued Lowland Hay Meadows, however the site lies outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity given that it is 5km from the Plan area.	Yes the site is potentially vulnerable to recreational impacts; however, the Mottey Meadows Site Improvement Plan[12] (2014) indicates that there are no recreational concerns / pressures on the site at this stage.	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses development in existing centres where there are more local recreation opportunities. ▪ NE1, NE2 and NE3 – Green Infrastructure /	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring	See previous avoidance/ mitigation column. Given the mitigation provided through plan policies and that the SIP does not identify	**No**

[12] http://publications.naturalengland.org.uk/publication/6519033218203648

SP3, SP4, EC1, HO1 and HO3				Green Network – protecting and enhancing local and strategic open space needs as well as the requirement for new development to contribute to the provision and enhancement of new and existing open space and recreational facilities. ▪ NE5 – Biodiversity and Geodiversity Assets – protecting, maintaining and enhancing valued habitats and species, supporting local assets and the recreational values that they hold. ▪ NE7 – Existing Public Open Space – protecting and maintaining local open space provisions that provide local sport and recreational opportunities. ▪ NE8 – Provision of public open space – requires new development to provide and/or contribute to the provision of useful and functional open space. ▪ COM1 – Social Infrastructure – restricting development that affects existing		authorities' development plans.	recreational activity as an issue for the site, it considered unlikely that the plan will act in-combination with other plans and programmes to have LSEs on the SAC through increased recreational activity.	

				community infrastructure and local recreational facilities. Given the mitigation provided through plan policies and that the SIP does not identify recreational activity as an issue for the site, it considered unlikely that the plan alone will have LSEs on the SAC through increased recreational activity.				
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	There are no pathways for impacts on surface water runoff or water quality at the site. The site is situated within the Shelton Water Resource Zone. Development therefore has the potential for increased levels of abstraction.	The SIP Plan[13] states that the Whiston Brook catchment appears to be affected by over abstraction; trickle irrigation has been highlighted as one of the main reasons for this with much of the catchment being used to grow soft fruit. Trickle Irrigation is currently exempt from licensing at the present time. Abstractions less than 20 cubic metres per day are exempt although. The MG8 and MG4 grassland types are sensitive to water level changes.	**Yes**	Mitigation provided by Draft Local Plan policies include: ▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ BE1 – Urban Design – encourages design that makes effective use of water resources. ▪ ER10 – Water Conservation and Efficiency – expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2 with regard to water abstraction, including neighbouring authorities' development plans that place further pressure on water resources through increased abstraction levels.	See previous avoidance/ mitigation column. This is supported by similar policy level mitigation in other development plans. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and that abstraction is not identified as an issue currently affecting the	**No**

[13] http://publications.naturalengland.org.uk/publication/6519033218203648

				re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand. The SIP suggests that the over abstraction of the Whiston Brook catchment is mainly as a result of trickle irrigation used to grow soft fruit. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and evidence provided through the SIP, it is considered unlikely that there will be LSEs alone on the SAC through increased abstraction.			site[14], it is considered unlikely that there will be LSEs on the SAC through reduced water levels as a result of the plan acting in-combination with other plans and programmes.	

[14] Ibid.

Severn Estuary SAC, Ramsar and SPA								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Given the distance of the site to the south west of the Plan area (93.5 km) it is unlikely that there will be impacts a result of long range (diffuse) atmospheric pollution.	Yes, Estuaries, Atlantic Salt Meadows, Mudflats and Sandflats not covered by seawater at low tide, Alosa fallax – Twaite Shad, Petromyzon marinus – Sea Lamprey and Lampetra fluviatilis – River Lamprey are sensitive to atmospheric pollution. Critical loads for acid deposition and nitrogen are not being exceeded for any of the habitats[15].	**No**	No pathways for LSE	**No**	No pathways for LSE	No pathways for LSE	**No**
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The site lies 93.5 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	Yes, pressures from tourism based activities and disturbance, however given the distance of the site from the Plan area is it unlikely that there would be significant increases in recreational activity as a result of development in Telford and Wrekin.	**No**	No pathways for LSE	**No**	No pathways for LSE	No pathways for LSE	**No**

[15] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]

Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The River Severn runs through the Ironbridge area in the south of the borough, and there are many water courses within the Plan area that eventually flow into the River Severn. Therefore there are pathways for impacts on water quality as well as water levels.	The Site Improvement Plan for the Severn Estuary SAC and SPA[16] indicates that water pollution is an existing issue; however, this is not the case for abstraction. Taking this into account the screening will consider the potential for LSEs as a result of reduced water quality.	**Yes**	Mitigation provided by the Local Plan includes: ▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ ER11 – Sewerage Systems and Water Quality – requires development to support capacity and resilience of local sewerage infrastructure, including through identifying drainage methods, separating sewerage and surface water flows and phasing development to allow for any necessary capacity improvements. ▪ ER12 – Flood Risk Management – requires effective on-site management of surface water, including detailed on-site surface water management schemes which can be adopted by the council, minimum standards for discharge rates, ensuring sufficient capacity at discharge	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2.	Please see mitigation provided through the Plan. This is supported by similar mitigation in other development plans. It is considered that the mitigation provided by Draft plan policies and current regulatory processes (EA Review of Consents) will ensure that the plan acting in-combination with other plans and programmes will not have LSEs on the Severn Estuary SAC, SPA & Ramsar as a result of reduced water quality.	**No**

[16] http://publications.naturalengland.org.uk/publication/4590676519944192

				locations, minimum standards for Sustainable Drainage Systems, minimum standards for surface design, avoiding the loss of open water courses and reestablishing them where possible, and enhancing the hydrological, ecological, visual and recreational value of any adjacent or new water bodies. It is considered that the mitigation provided by Draft plan policies and current regulatory processes (EA Review of Consents) will ensure that the plan alone will not have LSEs on the Severn Estuary SAC, SPA & Ramsar as a result of reduced water quality.				

West Midlands Mosses SAC								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance and be less than 1% of the minimum critical loads or levels alone for nitrogen at the site.	Yes, Natural Dystrophic Lakes and Ponds and Transition Mires and Quaking Bogs are sensitive to atmospheric pollution. Critical loads for nitrogen are being exceeded for both of the habitats[17]. Critical loads for acid deposition are being exceeded for both of the habitats[18].	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking. ▪ NE5 – Biodiversity and Geodiversity Assets – Protects and enhances valued assets, development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species. ▪ NE6 – Trees, Hedgerows and Woodlands – managing and protecting existing assets and restricting felling.	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans. However, the level of development proposed through the plan is not considered likely to contribute more than 1% of the minimum critical loads or levels alone at the site for nitrogen and is therefore considered not likely to have in-combination effects through diffuse pollution.	See previous avoidance/ mitigation column. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan will not have LSEs on this	**No**

[17] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]
[18] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]

				Supports improved air quality. ▪ C1 – Promoting alternatives to the car – promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking ▪ C3 –Impact of development on Highways – seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution ▪ BE1 – Urban Design – promotes design that encourages walking and cycling and efficient energy consumption. ▪ ER1 – Renewable Energy – promoting cleaner energy generation and consumption. The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes as well as facilities/services			site in-combination with other plans and programmes as a result of increased diffuse atmospheric pollution.	

				should help to reduce the need to travel by private car with long term positive effects on air quality. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan alone will not have LSEs on this site as a result of increased diffuse atmospheric pollution.				
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The site lies approx. 25 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	Abbots Moss site vulnerable to recreation, particularly in the northern portion which is a Scout camp. However given the distance of the site from the Plan area it is unlikely that there will be any significant increase in recreational activity. It should be noted that the SIP for the SAC does not indicate that	**No**	No pathways for LSE	**No**	No pathways for LSE	No pathways for LSE	**No**

		recreational activity is currently an issue.						
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	There are no pathways for impacts on surface water runoff or water quality at the site. The site is situated within the Whitchurch and Wern Water Resource Zone. Development therefore has the potential for increased levels of abstraction as water is transferred between resource zones by Severn Trent Water.	Yes, the Site Improvement Plan for the SAC identifies groundwater abstraction as a potential issues as well changes in water quality and nutrient enrichment. It is not considered that there are any pathways for impacts on water quality and the SIP states that activities within the small catchments are the sources of excess nutrients.	**Yes**	Mitigation provided by Draft Local Plan policies include: ▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ BE1 – Urban Design – encourages design that makes effective use of water resources. ▪ ER10 – Water Conservation and Efficiency – expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/ re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand.	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2 with regard to water abstraction, including neighbouring authorities' development plans that place further pressure on water resources through increased abstraction levels.	See previous avoidance/ mitigation column. This is supported by similar policy level mitigation in other development plans. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies[19], it is considered unlikely that there will be LSEs on the SAC through reduced water levels as a result of the plan acting in-combination with other plans and programmes.	**No**

[19] Ibid.

				Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and evidence provided through the SIP, it is considered unlikely that there will be LSEs alone on the SAC through increased abstraction.				

Midland Meres and Mosses (Ramsar Phase 1)								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development is not considered likely to result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution. Development proposed in the Plan area could contribute to long-range diffuse atmospheric pollution. However, the contribution of the plan is unlikely to be of significance and be less than 1% of the minimum critical loads or levels alone for nitrogen at the site.	Yes, critical loads are not available for the Ramsar site; however, they are available for the West Midlands Mosses SAC which covers the same area where the critical loads are being exceeded nitrogen and acid deposition are being exceeded for habitats[20].	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking. ▪ NE5 – Biodiversity and Geodiversity Assets – Protects and enhances valued assets, development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species. ▪ NE6 – Trees, Hedgerows and Woodlands – managing and protecting existing assets	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans. However, the level of development proposed through the plan is not considered likely to contribute more than 1% of the minimum critical loads or levels alone at the site for nitrogen and is therefore considered not likely to have in-combination effects through diffuse pollution.	See previous avoidance/ mitigation column. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan will not	**No**

[20] Air Pollution Information System (2012) Site Relevant Critical Loads. Online at http://www.apis.ac.uk/ [Accessed May 2015]

				and restricting felling. Supports improved air quality. ▪ C1 – Promoting alternatives to the car – promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking ▪ C3 –Impact of development on Highways – seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution ▪ BE1 – Urban Design – promotes design that encourages walking and cycling and efficient energy consumption. ▪ ER1 – Renewable Energy – promoting cleaner energy generation and consumption. The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes			have LSEs on this site in-combination with other plans and programmes as a result of increased diffuse atmospheric pollution.	

				as well as facilities/services should help to reduce the need to travel by private car with long term positive effects on air quality. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan alone will not have LSEs on this site as a result of increased diffuse atmospheric pollution.				
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The site lies approx. 25 km outside of the Plan area so there are no pathways for noise and light pollution, and it is unlikely that there will be a significant increase in recreational activity.	The evidence does not indicate that there is an issue.	**No**	No pathways for LSE	**No**	No pathways for LSE	No pathways for LSE	**No**
Changes to water levels and	There are no pathways for impacts on surface water	Yes, the composite sites Berrington Pool	**Yes**	Mitigation provided by Draft Local Plan policies include:	**No**	There is the potential for the	See previous avoidance/	**No**

quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	runoff or water quality at the site. The site is situated within the Shelton Water Resource Zone. Development therefore has the potential for increased levels of abstraction.	and Bomere, Shomere and Betton Pools are sensitive to lowering of the water table from nearby land drainage or abstractions. It is not considered that there are any pathways for impacts on water quality and the SIP for the West Midlands Mosses SAC states that activities within the small catchments are the sources of excess nutrients.		▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ BE1 – Urban Design – encourages design that makes effective use of water resources. ▪ ER10 – Water Conservation and Efficiency – expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/ re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as		policies to act in combination with a number of the plans and programmes identified in Appendix 2 with regard to water abstraction, including neighbouring authorities' development plans that place further pressure on water resources through increased abstraction levels.	mitigation column. This is supported by similar policy level mitigation in other development plans. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies[21], it is considered unlikely that there will be LSEs on the SAC through reduced water levels as a result of the plan acting in-combination with other plans and programmes.	

[21] Ibid.

				mitigation provided by Draft Local Plan policies and evidence provided through the SIP, it is considered unlikely that there will be LSEs alone on the SAC through increased abstraction.				

Midland Meres and Mosses (Ramsar Phase 2)								
Potential impacts of the Plan	**Environmental Pathways**	**Is the site sensitive/ vulnerable to these impacts?**	**Risk?**	**Potential avoidance/ mitigation**	**LSE alone?**	**Potential impacts of other plans and programmes**	**Potential avoidance/ mitigation**	**LSE in-comb?**
Reduced air quality through increased traffic and emissions. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	Proposed development will not result in a significant increase in traffic along any major roads that are within 200m of the SAC. It is therefore determined that there are no pathways for short range atmospheric pollution.	Yes, increasing the amount of nutrients in the water bodies through atmospheric pollution can lead to a loss of aquatic plants in favour of excessive growths of algae.	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses the majority of development within existing centres with; good access to more sustainable modes of transport, and increased accessibility to promote more cycling and walking. ▪ NE5 – Biodiversity and Geodiversity Assets – Protects and enhances valued assets, development must consider its impact on biodiversity and geodiversity assets, allowing for appropriate buffer zones, and enhancing conditions for priority habitats and species. ▪ NE6 – Trees, Hedgerows and Woodlands – managing and protecting existing assets and restricting felling. Supports improved air quality.	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans. However, the level of development proposed through the plan is not considered likely to contribute more than 1% of the minimum critical loads or levels alone at the site for nitrogen and is therefore considered not likely to have in-combination effects through diffuse pollution.	See previous avoidance/ mitigation column. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan will not have LSEs on this site in-combination with other plans and	**No**

				▪ C1 – Promoting alternatives to the car – promoting more sustainable modes of transport and increased accessibility to promote more cycling and walking ▪ C3 –Impact of development on Highways – seeks to manage and mitigate the impact of development on highways, managing congestion and atmospheric pollution ▪ BE1 – Urban Design – promotes design that encourages walking and cycling and efficient energy consumption. ▪ ER1 – Renewable Energy – promoting cleaner energy generation and consumption. The Council is proposing a comprehensive mitigation strategy to address the individual and cumulative impacts of proposed development on traffic. This along with Draft Local Plan Policies that seek to improve connectivity and enhance access to sustainable transport modes as well as facilities/services should help to reduce the need to travel by private			programmes as a result of increased diffuse atmospheric pollution.	

				car with long term positive effects on air quality. It is considered that the mitigation provided through plan policies above and available at the project level will ensure that there are no significant adverse impacts on air quality. It is important to note that there are no significant existing issues with regard to air quality within the borough, with National Air Quality Objectives being achieved. Given the points above it is considered that the plan alone will not have LSEs on this site as a result of increased diffuse atmospheric pollution.				
Increased disturbance through recreational activity, noise and light pollution. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The sites are used for Angling and Boating. There is a network of public footpaths, and recreational use increases in the summer period. Recreational pressures may increase as a result of development proposed through the plan, particularly within and around the Newport area. It should be noted that a screening of the proposed allocations concluded that they are not likely to have LSEs alone on any European sites. It is also important to note that the majority of the overall level of proposed growth (15,555	Yes, in line with other bog and mire habitats, trampling and erosion are a significant issue where public access occurs.	**Yes**	Mitigation provided through Draft Local Plan policies include: ▪ EC4 – Hierarchy of Centres – focuses development in existing centres where there are more local recreation opportunities. ▪ NE1, NE2 and NE3 – Green Infrastructure / Green Network – protecting and enhancing local and strategic open space needs as well as the requirement for new development to	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2, including neighbouring authorities' development plans.	See previous avoidance/ mitigation column. Given the mitigation provided by Draft plan policies and available at the project level, it is considered unlikely that there will be significant in combination effects through increased recreation.	**No**

	new dwellings) already have planning permission (9,310 dwellings) or have already been completed (3,243 dwellings). The majority of development is being directed to Telford to the south west of the plan area away from the European site.			contribute to the provision and enhancement of new and existing open space and recreational facilities. ▪ NE5 – Biodiversity and Geodiversity Assets – protecting, maintaining and enhancing valued habitats and species, supporting local assets and the recreational values that they hold. ▪ NE7 – Existing Public Open Space – protecting and maintaining local open space provisions that provide local sport and recreational opportunities. ▪ NE8 – Provision of public open space – requires new development to provide and/or contribute to the provision of useful and functional open space. ▪ COM1 – Social Infrastructure – restricting development that affects existing community infrastructure and local recreational facilities. The Plan focuses the majority of development to Telford in the south west of				

				the Plan area away from this European site. Only a small proportion of development is proposed in Newport and this is directed to the south of the town away from the European site in the north east. The mitigation provided by the Plan policies above and available at the project level is considered sufficient to address/ prevent LSEs alone on the site.				
Changes to water levels and quality though increased levels of abstraction, surface water runoff and sewerage discharge. Telford and Wrekin Draft Local Plan Policies: SP2, SP3, SP4, EC1, HO1 and HO3	The site is outside the plan area and proposed development is not likely to result in any increased nutrient input to the site as a result of consented discharge. There are no pathways for impacts on surface water runoff or water quality at the site. The site is situated within the Shelton Water Resource Zone. Development therefore has the potential for increased levels of abstraction.	Yes, the composite sites Aqualate Mere, Hencott Pool and Cop Mere are sensitive to reductions in water levels from ground water and surface water abstractions.	**Yes**	Mitigation provided by Draft Local Plan policies include: ▪ NE5 – Biodiversity and Geodiversity Assets – Ensuring that development minimises its impact on biodiversity and geodiversity assets. ▪ BE1 – Urban Design – encourages design that makes effective use of water resources. ▪ ER10 – Water Conservation and Efficiency – expects developers on schemes of 10 or more homes or 1,000 sqm of non-housing to demonstrate that they have incorporated design features that will reduce water consumption and supporting the recycling/	**No**	There is the potential for the policies to act in combination with a number of the plans and programmes identified in Appendix 2 with regard to water abstraction, including neighbouring authorities' development plans that place further pressure on water resources through increased abstraction levels.	See previous avoidance/ mitigation column. This is supported by similar policy level mitigation in other development plans. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies[22], it is considered unlikely that there will be LSEs on the SAC through	**No**

[22] Ibid.

				re-use of water through measures such as rainwater harvesting and grey water recycling. It also expects them to demonstrate that they provide features for the collection of rainwater for use in irrigation / watering to offset potable water demand. Given the current regulatory process in place, such as the WRMP and EA Review of Consents, as well as mitigation provided by Draft Local Plan policies and evidence provided through the SIP, it is considered unlikely that there will be LSEs alone on the SAC through increased abstraction.			reduced water levels as a result of the plan acting in-combination with other plans and programmes.	