

Habitat Regulations Assessment Screening Report

Bromsgrove District Plan: Pre-submission Consultation

September 2013

1 INTRODUCTION

1.1 The requirement to undertake Habitats Regulations Assessment of Development Plans

The European Habitats Directive (European Communities, 1992) requires an assessment to be made of the possible effects of certain plans on the integrity of 'European Sites' before the plan is adopted. The overall process of determining whether a plan complies with the requirements of the Habitats Directive is referred to as 'Habitats Regulations Assessment'.

In this context, 'European sites' - comprise:

- Special Areas of Conservation (SACs), for habitats;
- Special Protection Areas (SPAs), for birds); and also
- Sites designated under the Ramsar Convention as wetlands of international importance.

The purpose of HRA is to determine whether the proposed plan might have adverse effects on these sites and the reasons for which they were designated and, if such effects are likely, to suggest ways of avoiding them. The significance of adverse effects is assessed solely in relation to the 'conservation objectives' for which a European site has been designated and its ability to continue to support them (its 'integrity').

Article 6(3) of the Directive requires any plan or project which might have a significant effect on a European site, either individually or in combination with other plans or projects (and which is not directly connected with, or necessary to, the management of the site), to be assessed to determine its implications for the site and its conservation objectives. In the light of the conclusions of the assessment, the competent national authorities can agree to the plan or project only when they have ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(4) of the Directive discusses alternative solutions, the test of "imperative reasons of overriding public interest" (IROPI) and compensatory measures:

"6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted."

1.2 Methodology used for this Habitat Regulations Assessment

DCLG (2006) guidance on Planning for the Protection of European Sites: Appropriate Assessment (consultation document) recommends a 3 stage process:

1. *Screening*: Determining whether the plan 'either alone or in combination with other plans or projects' is likely to have a significant effect on a European site
2. *Appropriate Assessment*: Determining whether, in view of the site's conservation objectives, the plan 'either alone or in combination with other plans or projects' would have an adverse effect (or risk of this) on the integrity of the site. If not, the plan can proceed.
3. *Mitigation & Alternatives*: Where the plan is assessed as having an adverse effect (or risk of this) on the integrity of a site, there should be an examination of mitigation measures and alternative solutions. If it is not possible to identify mitigation and alternatives it will be necessary to establish the '*imperative reasons of overriding public interest*' (IROPI). This is not considered a standard part of the process and will only be carried out in exceptional circumstances.

All 3 stages of the process are referred cumulatively as Habitat Regulations Assessment, to clearly distinguish the whole process from the step within it referred to as the Appropriate Assessment.

The assessment process can be stopped after any of these stages if it is found that the plan (revised if necessary) will not adversely affect the integrity of any European site. The end-product is a statement which concludes whether or not the plan will affect the integrity of any European site.

2. Screening

The principle aim of this chapter is to 'screen' the potential of Bromsgrove District Plan for its likely impact on the Natura 2000 sites within 15 kilometres of the Bromsgrove district boundary.

The screening process aims to be a first sieve of the European sites that the Bromsgrove local planning process could possibly affect. This section:

- Identifies European sites within 15km of the Bromsgrove District boundary (section 2.1) and the conservation objectives of these sites;
- Summarises what the possible effects of the Bromsgrove local planning process on those sites could be (Section 2.2);
- Lists existing trends that could affect the sites 'in combination' in the Bromsgrove local planning process ; (Section 2.3)
- Consider possible effects of the Bromsgrove local planning process in relation to the ecological requirements of the sites qualifying features & screen out sites that are unlikely to be affected by the Bromsgrove District Plan. (Section 2.4)

In undertaking the screening stage of the HRA for Bromsgrove District Plan, a highly precautionary approach was adopted. No assumptions or allowances were made for existing regulatory mechanisms (e.g. EA's regulatory role) or the local planning policies or proposals that seek to conserve, or enhance the natural environment. The

role of this HRA screening is to ensure that the Bromsgrove local planning process does not adversely affect the integrity of the Natura 2000 sites.

2.1 European Sites

Table 1 lists the European sites that are within 15 km of the Bromsgrove district boundary:

Name and location	Qualifying features	Distance from District
Fens Pool SAC UK00301250	Great Crested Newt <i>Triturus cristatus</i> (Annex II species)	5.6km
Lyppard Grange Ponds SAC UK0030198	Great Crested Newt <i>Triturus cristatus</i> (Annex II species)	11.5km

The Conservation Objectives for these two sites are, subject to natural change, to maintain the following habitats and geological features in favourable condition (*), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated (cSAC, SPA, Ramsar) as individually listed in Table 1.

(*) or restored to favourable condition if features are judged to be unfavourable.

Standards for favourable condition of the two sites are defined with particular reference to the specific designated features listed (i.e. great crested newt) and are based on a selected set of attributes for features which most economically define favourable condition as set out in the tables in Annex 1.

2.2 Possible effects of the Bromsgrove District Plan and Bromsgrove Town Centre AAP

Bromsgrove District Plan set out the following vision:

Bromsgrove District Plan:

“By 2030 Bromsgrove District and its communities will have become sustainable, prosperous, safe, healthy and vibrant. People from all sections of society will have been provided with access to homes, jobs and services. The attractiveness of the District in terms of its landscape, built form and settlements will have been preserved and enhanced.”

Bromsgrove District Plan specifically provides for

- around 4600 homes between 2011 – 2023 (Worcestershire Strategic Housing Market Assessment 2012)
- approximately 3500 homes between 2011-2030 for the cross-boundary growth of Redditch Borough (Worcestershire Strategic Housing Market Assessment 2012)

- 28ha of indicative long-term requirements of employment land between 2011 - 2030 (Employment Land Review Update 2012)
- up to 16,560sqm of comparison retail floorspace up to 2026
- a Green Belt Review framework to be carried out after the adoption of Bromsgrove District Plan where 330ha of land will be required, including 128ha to deliver 2400 dwellings till 2030, 188ha of safeguarded land to deliver 3680 dwellings for the 10 years beyond and 14ha of safeguarded land to meet employment needs for the 10 years beyond 2030. The Green Belt Review will also need to identify land for meeting the cross-boundary development needs of the conurbation in the plan period.

As such, the possible impacts of the Bromsgrove local planning process on the Natura 2000 sites are identified as arising from:

- Urbanisation that may lead to habitat and species fragmentation and loss;
- Possible associated disturbance of fauna and impacts on the habitats in European sites as a result of increased recreational activity from population increase;
- Increased traffic and emissions from developments, leading to increased air pollution, which could affect habitats / species sensitive to air quality;
- Increased water use, which could, depending on where the water comes from (or goes to), affect water levels or water quality within the European sites.

2.3 Existing Trends and Possible Future Development

Table 2 below summarises the development needs in Bromsgrove and nearby districts that could also lead to 'in combination' impacts with Bromsgrove District Plan

Area	Development Plans or Proposals
Bromsgrove DC	Bromsgrove District Plan identified land to deliver around 4000 homes between 2011-2023 (Worcestershire Strategic Housing Market Assessment 2012), 28ha of employment land (Employment Land Review Update 2012) between 2011-2030. Impacts identified for Longbridge AAP may work in combination with other impacts generated through the Bromsgrove District Plan.
Redditch	6380 dwellings, 55ha employment land between 2011 – 2030 (3400 dwellings and 15.5ha of employment land will be provided in Bromsgrove District and another 12ha of employment land will be provided in Stratford-on-Avon) (Draft Redditch Borough Local Plan No.4, 2013)
Wyre Forest DC	4000 dwellings, 44ha employment land between 2006 - 2026 (Adopted Wyre Forest Core Strategy 2010)
Wychavon DC	8,900 dwellings, 120ha employment land provision between 2006 – 2030 (Draft South Worcestershire Development Plan, 2013)
Stratford-on-Avon DC	8000 dwellings, 25-30 ha employment land between 2008-2028 (Draft Stratford-on-Avon Core Strategy, 2012)

Dudley MBC	16,127 dwellings, 648ha employment land between 2006 – 2026 (Adopted Black Country Core Strategy 2011)
------------	--------------------------------------------------------------------------------------------------------

2.4 Screening – Site qualifying features and potential impacts

Table 4 & 5 documents the screening process for the SPA's/SAC's potentially affected by the Bromsgrove District Plan, and considers the significance of a range of possible impacts in relation to the individual sites qualifying features. A significant effect is considered to be one that is not trivial or inconsequential, but an effect that is potentially relevant to the sites conservation objectives.

a) could have no effect on the Natura 2000 sites

b) could possibly have likely significant effect on the Natura 2000 sites

c) would be likely to have a significant effect and be a key issue on the Natura 2000 sites

Table 4: Significant effects matrix for Bromsgrove District Plan on Fens Pool SAC

Assessment of significance of effects: Fens Pools SAC (UK00301250) Dudley			
Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
Land take/land use change	The site is located outside of the District. No effects envisaged.	No significant in combination effects on the site are envisaged between the Black Country regeneration area and Bromsgrove District.	Great Crested Newts require a terrestrial habitat consisting of undisturbed grassland, scrub and woodland. Due to the location of the site outside of the District and the fact that Bromsgrove's local planning process has no powers of influence over the future use of the site, no effects are envisaged.
Impact on protected species outside the site	No effects envisaged.	No effects envisaged.	The site is already largely surrounded by development, limiting the likelihood of Great Crested Newts. No effects envisaged.

Assessment of significance of effects: Fens Pools SAC (UK00301250) Dudley

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
<p>Recreational pressure and disturbance</p>	<p>Any development plans within Bromsgrove which could increase populations near to the site might result in an increased number of visitors, increasing recreational pressure and disturbance.</p> <p>However, it is considered unlikely that this would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site.</p>	<p>Theoretically development plans which increased the population near to the site coupled with the effects of the Black Country regeneration area could increase visitor numbers.</p> <p>However, it is considered unlikely that this would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site.</p> <p>In the Habitat Regulations Assessment of the Joint Core Strategy for the Black Country (2008), it was mentioned that the large lakes (which do not contain great crested newts) are the visitor hotspots at Fens Pools and it is not thought that visitor pressure in the area supporting the newts is likely to increase to the extent that there would be significant effects on the newt population.</p> <p>Moreover, the Worcestershire Green Infrastructure Partnership has also assessed the sub-regional recreational needs arise from proposed developments in Worcestershire.</p>	<p>Given that there are three country parks in the District (Clent Hills, Lickey Hills and Waseley Hills), it is unlikely that population increase in the District would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site. However, the lack of information with regard to the level of recreation occurring within the vicinity of European sites means it is not possible to conclude with certainty that the Bromsgrove District Plan and the Black Country Core Strategy together will not have adverse effects on the integrity of the European site.</p> <p>It is therefore recommended that the Council should seek to protect and enhance sites of recreational value and ensures that proposals for new development contribute to open space, sport and recreation provision commensurate to the need generated by proposed developments.</p>
<p>Water supply</p>	<p>Development within Bromsgrove District will need to be supplied with water. The majority of the District's existing water supply comes from groundwater</p>	<p>There is potential for the combination of development within Bromsgrove District and development elsewhere to increase water abstraction, leading to</p>	<p>Impacts are considered unlikely as there are no direct hydrological links between the site and the District.</p> <p>To minimise the impact</p>

Assessment of significance of effects: Fens Pools SAC (UK00301250) Dudley

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
	<p>abstraction.</p> <p>Based on the projected build rates of 23,000 per annum up to 2014/15 and 30,000 per annum post 2015 (which is based on the WMRSS preferred option housing figure) and the assumption that no measures are introduced, the projected Severn WRZ baseline supply demand projection by Severn Trent Water indicates supply deficit from 2016 onwards. However, with the introduction of demand and supply measures, the projected balance of supply in the Severn WRZ will remain positive through the plan period to 2030. The supply side measures are included in Severn Trent Water's programme which includes recharging treated water when capacity is available and develop new groundwater sources,</p>	<p>adverse impacts on the site.</p> <p>However, the Worcestershire Middle Severn CAMS published in 2006 indicated that the Environment Agency has "reviewed the impact of current abstractions on Fens pool and Lyppard Grange and concluded that the sites are not at risk from abstraction." Given that the SAC falls with the Severn Trent Water's Strategic Grid WRZ, it is believed that the Environment Agency would not renew licence should impact on the SACs is likely and that Severn Trent will meet the needs from development by moving water from other areas,</p>	<p>of development on the water environment, it is recommended that the Council considers imposing water management requirements on developments.</p>
Water quality	<p>Development planned in the District could result in increased runoff.</p> <p>As there are no direct hydrological links between the District and the site no effects are envisaged.</p>	No effects envisaged.	<p>Great Crested Newt generally require pollution free habitat, although slight levels of pollution are considered acceptable.</p> <p>Impacts are considered unlikely as there are no direct hydrological links between the site and the District.</p>

Assessment of significance of effects: Fens Pools SAC (UK00301250) Dudley

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
Air pollution	<p>The eastern edge of Fens Pools is within 200m of the A461, and the northern edge is adjacent to the A4101.</p> <p>According to the Dudley MBC Air Quality Action Plan, the principle source of air pollution within the area is high traffic flows, emissions from stationary and queuing traffic, steep gradients, geographical setting and residential properties located close to heavily trafficked roads. Within Dudley District, 15 separate locations are found to exceed the annual mean nitrogen dioxide (NO₂) objective, with one of the locations Pensnett around a mile away from the SAC.</p> <p>Development plans within Bromsgrove which would result in increased traffic levels on these roads could theoretically have an impact on air quality on the site.</p>	<p>There is potential for the combination of development within Bromsgrove District and development elsewhere to contribute to background levels of atmospheric pollution that could potentially have adverse effects on the integrity of the European site. The sensitivity of European sites to atmospheric pollutants is dependent on different factors, hence determining the critical load for site and assessing the affect of atmospheric pollution is most appropriately carried out at a site specific level. Given this uncertainty, it cannot be concluded that the Bromsgrove District Plan will have adverse effects on the integrity of European sites through increased atmospheric pollution.</p>	<p>Unlikely to translate into significant effects though site specific level assessment has to be carried out to conclude.</p> <p>To minimise the increase of atmospheric pollution, it is recommended that the Council seeks to minimise the negative impacts of development on overall air quality in the District.</p>
Appropriate management	Policies in the Bromsgrove District Plan would not affect the management of the site.	No effects envisaged.	No effects envisaged.

Table 5: Significant effects matrix for Bromsgrove District Plan on Lyppard Grange Ponds SAC

Assessment of significance of effects: Lyppard Grange Ponds SAC (UK0030198) Worcester			
Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
Land take/land use change	The site is located outside of the District. No effects envisaged.	No significant in combination effects on the site are envisaged between Worcester City and Bromsgrove District.	Great Crested Newts require a terrestrial habitat consisting of undisturbed grassland, scrub and woodland. Due to the location of the site outside of the District and the fact that Bromsgrove's local planning process has no powers of influence over the future use of the site. No effects are envisaged.
Impact on protected species outside the site	No effects envisaged.	No effects envisaged.	The site is already largely surrounded by development, limiting the likelihood of Great Crested Newts. No effects envisaged.

Assessment of significance of effects: Lyppard Grange Ponds SAC (UK0030198) Worcester

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
<p>Recreational pressure and disturbance</p>	<p>Any development plans within Bromsgrove which could increase populations might result in an increased number of visitors, increasing recreational pressure and disturbance.</p> <p>However, it is considered unlikely that this would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site.</p>	<p>Theoretically development plans which increased the population near to the site coupled with the effects of the South Worcestershire area could increase visitor numbers.</p> <p>However, it is considered unlikely that this would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site.</p> <p>According to the HRA Report for South Worcestershire Development Plan Preferred Option, the SAC "is enclosed by existing development and the likelihood of the proposed developments significantly increasing recreation levels on the site are minimal, as the nearby allocated sites propose larger, alternative areas of recreational space.</p> <p>The Worcestershire Green Infrastructure Partnership has also assessed the sub-regional recreational needs arise from by proposed development in Worcestershire.</p>	<p>Given that Clent Hills, Lickey Hills and Waseley Hills are all within Bromsgrove District, it is unlikely that population increase in the District would result in an increase in visitor numbers large enough to have a significant effect on the favourable condition of the site. However, the lack of information with regard to the level of recreation occurring within the vicinity of European sites means it is not possible to conclude with certainty that the Bromsgrove District Plan, Bromsgrove Town Centre AAP and the Black Country Core Strategy will not have adverse effects on the integrity of the European site.</p> <p>It is therefore recommended that the Council should seek to protect and enhance sites of recreational value and ensures that proposals for new development contribute to open space, sport and recreation provision commensurate to the need generated by proposed developments.</p>

Assessment of significance of effects: Lyppard Grange Ponds SAC (UK0030198) Worcester

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
Water supply	<p>Development within Bromsgrove District will need to be supplied with water. The majority of the District's existing water supply comes from ground water abstraction.</p> <p>Based on the projected build rates of 23,000 per annum up to 2014/15 and 30,000 per annum post 2015 (which is based on the WMRSS preferred option housing figure) and the assumption that no measures are introduced, the projected Severn WRZ baseline supply demand projection by Severn Trent Water indicates supply deficit from 2016 onwards. However, with the introduction of demand and supply measures, the projected balance of supply in the Severn WRZ will remain positive through the plan period to 2030. The supply side measures are included in Severn Trent Water's programme which includes recharging treated water when capacity is available and develop new groundwater sources,</p>	<p>There is potential for the combination of development within Bromsgrove District and development elsewhere to increase water abstraction, leading to adverse impacts on the site.</p> <p>However, the Worcestershire Middle Severn CAMS published in 2006 indicated that the Environment Agency has "reviewed the impact of current abstractions on Fens pool and Lyppard Grange and concluded that the sites are not at risk from abstraction." Given that the SAC falls within the Severn Trent Water's Strategic Grid WRZ, it is believed that the Environment Agency would not renew licence should impact on the SACs is likely and that Severn Trent will meet the needs from development by moving water from other areas,</p>	<p>Impacts are considered unlikely as there are no direct hydrological links between the site and the District.</p> <p>To minimise the impact of development on the water environment, it is recommended that the Council considers imposing water management requirements on developments.</p>
Water quality	<p>Development planned in the District could result in increased runoff.</p> <p>As there are no direct hydrological links between the District and the site no effects are envisaged.</p>	No effects envisaged.	<p>Great Crested Newt generally require pollution free habitat, although slight levels of pollution are considered acceptable.</p> <p>Impacts are considered unlikely as there are no direct hydrological links between the site and the District.</p>

Assessment of significance of effects: Lyppard Grange Ponds SAC (UK0030198) Worcester

Nature of potential impact	How Bromsgrove District Plan could affect the Natura 2000 site	Possible effects in combination with other plans and policies	Assessment of significance and rationale
Air pollution	<p>Lyppard Grange Ponds is approximately 500m from the A4440 (a heavily congested road) and 600m from the M5 between Junctions 6 and 7.</p> <p>According to the HRA Report for South Worcestershire Development Plan Preferred Options, the principle source of air pollution within the plan area is vehicular traffic. Other pollution sources, including commercial, industrial and domestic sources, also make a contribution to background air pollution levels. There are 3 Air Quality Management Areas in Worcester City, with the Newtown Road AQMA around a mile away from the SAC. The Worcestershire State of Environment Report (accessed on 3/8/12) states that “a consultation exercise has recently been undertaken on the potential to revoke existing AQMAs... The air quality has improved in Newtown Road AQMA and no longer exceeds the National Objective for Nitrogen Dioxide,”</p> <p>Development plans within Bromsgrove which would result in increased traffic levels on these roads could theoretically have an impact on air quality on the site.</p>	<p>There is potential for the combination of development within Bromsgrove District and development elsewhere to contribute to background levels of atmospheric pollution that could potentially have adverse effects on the integrity of the European site. The sensitivity of European sites to atmospheric pollutants is dependent on different factors, hence determining the critical load for site and assessing the affect of atmospheric pollution is most appropriately carried out at a site specific level. Given this uncertainty, it cannot be concluded that the Bromsgrove District Plan will not have adverse effects on the integrity of European sites through increased atmospheric pollution.</p>	<p>Unlikely to translate into significant effects though site specific level assessment has to be carried out to conclude.</p> <p>To minimise the increase of atmospheric pollution, it is recommended that the Council seeks to minimise the negative impacts of development on overall air quality in the District.</p>
Appropriate management	Policies in the Bromsgrove District Plan would not affect the management of the site.	No effects envisaged.	No effects envisaged.

2.5 Conclusions – Habitat Regulations Assessment - Screening Stage

The screening assessment has concluded that the implementation of the Bromsgrove District Plan will have no 'likely significant effects' on any Natura 2000 site, alone or in combination with other plans or projects. Therefore Stage II Appropriate Assessment will not be required.

Annex 1: Favourable conditions tables of Fens Pool SAC and Lyppard Grange Ponds SAC from Natural England

FENS POOL SAC

Habitat Features - Extent Objectives

Conservation Objective for habitat extent	To maintain the extent of the amphibian habitat (terrestrial and aquatic)s at Fens Pools. No loss of area or fragmentation of site (through significant barriers to amphibian dispersal) compared with status at designation. On this site favourable condition is defined in terms of the amphibian and Great Crested Newt attributes and targets.		
Extent - Dynamic balance	On this site favourable condition is not defined by the extent of each designated habitat type, but by the amphibian and Great Crested Newt attributes and targets. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.		
Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Site Specific Target range and Measures	Comments
Broadleaved Semi-Natural Woodland (Scrub)	6.2ha	Maintain extent of habitats that support notified amphibian features - losses of 5% or more of any habitat type is unacceptable.	Recoverable reduction = unfavourable; Non-recoverable reduction = partially destroyed (Excludes natural fluctuation in extent)
Neutral Grassland	15.6ha		
Fen, marsh and swamp	2ha		
Standing Open Water	12.4ha		
Built-up areas	1.4ha		
Audit Trail			
Rationale for habitat extent attribute			
(Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).			
Habitat extents have been derived from JNCC figures for the Fens Pools SAC and examination of the 1999 aerial photograph.			
Rationale for site-specific targets (including any variations from generic guidance)			
No variation from generic guidance.			
Other Notes			

Specific definitions of Favourable Condition – Great Crested Newt

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Great Crested Newt	Eggs	Record presence by one day or night visit Mid-March – Mid-May. Survey for 4 consecutive years within 6 year reporting cycle. 1 visit per assessment year required.	Present in all or sample ¹ breeding ponds ² at least once every 4 years. (i.e. acceptable for eggs to be absent from individual ponds 3 years out of 4; fail if any breeding pond lacks eggs for 4 years)	Eggs normally laid starting mid-February (southern England) but increasing numbers present (and therefore easier to find) through spring. Best to combine with visit for adult attribute.	Yes
Great Crested Newt	Adults	Record sum total of number of adults detected in all or sample ¹ ponds in spring. Record for 4 consecutive years within each 6 year reporting cycle. 3 visits per year required. Timing based on known peak season for the area, and in-year weather conditions; likely to be Mid-April to Mid-May in central areas. Derive peak by summing counts across site on “best” night for each season.	At least 20% of peak ³ count for 4 consecutive years (i.e. fail if total falls below 20% of peak for 4 consecutive years).	Considerable between-year variation is frequent; see Overview. 211 adults counted on 19 th May 88 by Arnie Cooke.	Yes
Great Crested Newt	Presence of ponds (permanent and temporary)	Record number of ponds present. Record once every 3 years. Any time of year.	No net loss of ponds from date of designation.	Ponds to include breeding ponds as well as non-breeding ponds, since the latter may be used for foraging or for sustaining prey populations. In exceptional cases, a net loss may be acceptable if enhancements are made to remaining ponds. Eleven ponds judging from the 1999 aerial photograph. Great Crested Newts concentrated in the ponds at the northern end of the site.	Yes

¹ sample ponds” applies at sites with high numbers of ponds (say >20), meaning that regular monitoring at each pond is prohibitive; select at least 20 individual breeding ponds or 10% of the total number of breeding ponds (whichever is larger) as a sample, to represent geographic spread and variation in pond type plus immediate terrestrial habitat across the site. Sample ponds should ideally support a majority of the breeding population (i.e. select ponds with high counts).

² Breeding pond = a pond in which egg-laying and successful metamorphosis is likely to occur at least 1 in every 4 years.

³ Peak count to be taken as the highest site total from monitoring data in the 3 years leading up to designation.

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Great Crested Newt	Aquatic macrophyte cover	Visual assessment between May and mid-September. Record for 4 consecutive years within each 6 year reporting cycle. 1 visit per year required. "Good" defined as: <ul style="list-style-type: none"> • 25% - 100% of margin covered by marginal and emergent species, and • 25% 75% of pond bottom/ midwater/ surface covered by submerged or floating species. 	"Good" cover of marginal vegetation, emergent, submerged and/or floating vegetation to be present in at least 50% of breeding ponds.	This attribute allows for considerable variation in aquatic vegetation, but should prohibit a majority of ponds becoming overgrown, or suffering severe macrophyte die-back. Short-term algal blooms and duckweed <i>Lemna</i> coverage not normally problematic. Attribute should also serve as a proxy for detecting eutrophication, toxic spills, catastrophic reduction in invertebrate community, or underlying water quality issues; however if other evidence confirms one of these is a serious problem in >50% of ponds and the vegetation cover measures are nonetheless acceptable, then the attribute should fail.	Yes
Great Crested Newt	Pond persistence	Record approximate depth of water in identified breeding ponds between mid-August and mid-September. Visual assessment is suitable. Record once every 3 years.	Generic target for most sites: Minimum summer water depth 10cm for at least 50% of all or sample 1 breeding ponds on each year of assessment. Note: the target may be adjusted downwards at sites where early desiccation is a natural feature (eg sand dunes, with many small, shallow ponds in close proximity) and where previous records demonstrate this is consistent with population viability. Target may be adjusted upwards at sites supporting ponds that do not normally dry out in summer.	High inter-site variation. Note the requirement for setting site-specific objectives with deviation from the standard target at sites where ponds naturally desiccate more frequently and earlier in the season without negatively affecting population viability. Target setting may require examination of historical site records and weather conditions to assess normal desiccation pattern.	Yes
Great Crested Newt	Pond shading by scrub/trees	Visual assessment of extent and orientation of pond margin solidly shaded by scrub/trees directly overhanging or adjacent to margin (not floating or emergent macrophytes). Assess April to June. Record once every 3 years. Shade should only be counted if relatively solid (and therefore likely to cause lower light levels and lower water temperatures).	Sites with <20 breeding ponds: <25% of breeding ponds to have >20% of southern margin solidly shaded. Sites with >20 breeding ponds: Use above target in most cases, but if the habitat type and previous newt monitoring suggest a higher extent of shading is acceptable, <50% of breeding ponds to have >20% of southern margin solidly shaded.	Shading of southern margin is detrimental. Some shading of northern margin is often beneficial. Note that site context is important to consider (eg woodland sites should have higher threshold for shading than sand dune sites).	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Great Crested Newt	Fish and wildfowl	Visual assessment, March-September. Record for 4 consecutive years within each 6 year reporting cycle. 1 visit per year required. Look for fish and stocked wildfowl, or evidence of their presence: characteristic disturbance at water surface for fish, high turbidity, nests, droppings at pond margin, major loss of aquatic macrophytes, presence of algal blooms, heavily grazed grasses on bank. Numbers required to fail target: <ul style="list-style-type: none"> • Fish: any number of individuals(need only to determine presence). • Wildfowl: > 4 pairs/ha of open water. 	Sites with fewer than 5 breeding ponds: Fish and wildfowl problems absent from all ponds. Sites with > 5 breeding ponds: Fish and wildfowl problems absent from >75% of ponds.	Fish refers to all species known to be predators of great crested newt larvae, including stickleback, goldfish, orfe, rudd, pike, roach, perch. Target can be adjusted downwards if regular desiccation is likely, or (exceptionally) if larval survival is high despite fish presence. Target may be adjusted upwards if site is especially vulnerable (eg all ponds linked by ditches). "Wildfowl" refers to stocked ducks, swans or geese, and not natural populations of moorhens etc (which are not problematic).	Yes
Great Crested Newt	Terrestrial habitat extent	Determine area by walking site and comparing with map or aerial photo; most semi-natural habitats within 500m of breeding pond to be included. Assess presence of fragmentation. Any time of year. Record once every 3 years. Fragmentation refers to significant barriers to movement such as walls, buildings, and not, for instance, footpaths or tracks.	No loss of area or fragmentation of site (through significant barriers to newt dispersal), compared with status at designation.	Approximate figures SSSI areas (derived from 1999 aerial photo) Standing Open Water = 12.4ha, Fen, marsh and swamp = 2ha, Scrub 6.2ha, Grassland 15.6ha, Built-up areas and gardens 1.4ha. SAC areas (from JNCC website) Inland water bodies or Standing Open Water and canals in BAP Broad habitat categories (2% or 0.4ha). Bogs. Marshes. Water fringed vegetation. Fens or Fen, marsh and swamp in BAP reporting categories (5% or 1.02ha). Heath. Scrub. Maquis and garrigue. Phygrana or Broad-leaved, mixed and yew woodland in BAP reporting categories (20% or 4.08ha). Dry grassland or Neutral grassland in BAP reporting categories (66% or 13.64ha). Other land (including towns, villages, roads, waste places, mines, industrial sites) or Built up areas and gardens in BAP reporting categories (7% or 1.4ha)	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Great Crested Newt	Terrestrial refuge habitat - structure and quality	Visual assessment at any time of year. Record once every 3 years.	Presence of suitable terrestrial refuge habitat – define on site basis.	High inter-site variation; dependent on site context. Record key features at time of designation and define components providing refuge potential; mark on map. May include discrete features or patches of habitat. Base on habitat structure that (i) provides refuge from extremes of climate (hot, cold, or dry); (ii) provides daytime shelter; (iii) is conducive to invertebrate prey populations. Most important close (<50m) to main breeding ponds. Most often provided by shrub layer, tussocky grass/rushes/sedges, scrub, woodland, leaf litter, cracked clay, quarry spoil, rubble, heaped brash, deadwood, log piles. Eg broadleaved woodland sites may have much undisturbed leaf litter, deadwood and exposed old root systems.	Yes

Site-Specific definitions of Favourable Condition – Amphibian assemblage

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Amphibian assemblage	Adults (or spawn for Common frog)	Assess by torch survey, netting, visual assessment as appropriate for species present. Assess 3 years in every 6 years. 3 - 5 visits for each assessment year, depending on species. Survey dates depend on site location and species, likely to be mid-Feb - March for frogs, mid-March - April for toads, mid-April – mid-May for newts. Day and night visits depending on species.	Fail if: <ul style="list-style-type: none"> • Score for any individual species falls by 2 points from baseline⁴ value for 3 consecutive assessments, or • Total score falls by 5 points from baseline value for 3 consecutive assessments. 	See Table 29 (page 268) in SSSI Guidelines for scoring system. Exceptional numbers of Great Crested Newt (score 3) and Smooth newt (score 3) and Good numbers of Common frog and Common Toad (Scoring 2 each) and the presence of four amphibian species give a score of 11 (based on 1988 survey by Arnie Cooke).	Yes
Amphibian assemblage	Juveniles, tadpoles and spawn/eggs	Visual or netting. February – September. 2-3 visits per year, depending on species present. Assess 3 years in every 6.	Fail if no spawn/eggs, tadpoles or juveniles (< 1 year old) found in/adjacent to identified breeding pond for each species for 3 consecutive assessments.	Observations most efficiently made during the visits for adult.	Yes
Amphibian assemblage	Presence of ponds (permanent and temporary)	Record number of ponds present. Record once every 3 years. Any time of year.	Give minimum figure, to be selected on site basis. No net loss of ponds from date of designation.	Ponds to include breeding ponds as well as non-breeding ponds, since the latter may be used for foraging or for sustaining prey populations. In exceptional cases, a net loss may be acceptable if enhancements are made to remaining ponds. Eleven ponds, judging from the 1999 aerial photograph.	Yes

⁴ Baseline refers to counts achieved at designation or within 3 years of designation, whichever is higher.

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Amphibian assemblage	Pond persistence	Record approximate depth of water in identified breeding ponds between mid-May and mid-June (for sites supporting frogs or toads) or mid-July to mid-August (for sites supporting newts). Visual assessment is suitable. Record once every 3 years.	Generic target for most sites: Minimum summer water depth 10cm for at least 50% of all breeding ponds on each year of assessment. Note: the target may be adjusted downwards at sites where early desiccation is a natural feature (eg sand dunes, with many small, shallow ponds in close proximity) and where previous records demonstrate this is consistent with population viability. Target may be adjusted upwards at sites supporting ponds that do not normally dry out in summer (especially common toad sites).	High inter-site variation. Note the requirement for setting site-specific objectives with deviation from the standard target at sites where ponds naturally desiccate more frequently and earlier in the season without negatively affecting population viability. Target setting may require examination of historical site records and weather conditions to assess normal desiccation pattern; target should be appropriate for range of species present.	Yes
Amphibian assemblage	Pond shading by scrub/trees	Visual assessment of extent and orientation of pond margin solidly shaded by scrub/trees directly overhanging or adjacent to margin (not floating or emergent macrophytes). Assess April to June. Record once every 3 years. Shade should only be counted if relatively solid (and therefore likely to cause lower light levels and lower water temperatures).	Generic target: <25% of breeding ponds to have >20% of southern margin solidly shaded. Target may be modified for sites that normally support higher levels of shade.	Shading of southern margin is detrimental. Some shading of northern margin is often beneficial. Note that site context is important to consider (eg woodland sites should have higher threshold for shading than sand dune sites).	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Amphibian assemblage	Terrestrial habitat extent	Determine area by walking site and comparing with map or aerial photo; most semi-natural habitats within 500m of breeding pond to be included. Assess presence of fragmentation. Any time of year. Record once every 3 years. Fragmentation refers to significant barriers to movement such as walls, buildings, and not, for instance, footpaths or tracks.	No loss of area or fragmentation of site (through significant barriers to amphibian dispersal), compared with status at designation.	<p>Approximate figures SSSI areas (derived from 1999 aerial photo) Standing Open Water = 12.4ha, Fen, marsh and swamp = 2ha, Scrub 6.2ha, Grassland 15.6ha, Built-up areas and gardens 1.4ha. SAC areas (from JNCC website) Inland water bodies or Standing Open Water and canals in BAP Broad habitat categories (2% or 0.4ha). Bogs. Marshes. Water fringed vegetation. Fens or Fen, marsh and swamp in BAP reporting categories (5% or 1.02ha). Heath. Scrub. Maquis and garrigue. Phygrana or Broad-leaved, mixed and yew woodland in BAP reporting categories (20% or 4.08ha). Dry grassland or Neutral grassland in BAP reporting categories (66% or 13.64ha). Other land (including towns, villages, roads, waste places, mines, industrial sites) or Built up areas and gardens in BAP reporting categories (7% or 1.4ha)</p>	Yes
Amphibian assemblage	Terrestrial refuge habitat - structure and quality	Visual assessment at any time of year. Record once every 3 years.	Presence of suitable terrestrial refuge habitat – define on site basis.	High inter-site variation; dependent on site context. Record key features components providing refuge potential; mark on map. May include discrete features or patches of habitat. Base on habitat structure that (i) provides refuge from extremes of climate (hot, cold, or dry); (ii) provides daytime shelter; (iii) is conducive to invertebrate prey populations. Most important close (<50m) to main breeding ponds. Most often provided by shrub layer, tussocky grass/rushes/sedges, scrub, woodland, leaf litter, cracked clay, quarry spoil, rubble, heaped brash, deadwood, log piles. Eg broadleaved woodland sites may have much undisturbed leaf litter, deadwood and exposed old root systems.	Yes

LYPPARD GRANGE PONDS SAC

Operational feature	Criteria feature	Attribute	Measure	Target	Comments
Freshwater ponds	Great crested newt <i>Triturus cristatus</i>	Presence of ponds	Ponds (permanent and temporary) to remain in suitable numbers to sustain the size and range of population.	At least 2 ponds to be present within the site.	Record number of ponds in specific conservation objectives.
		Pollution	Absence of pollution	Slight pollution is acceptable. It is unfavourable if pollution is affecting the suitability of the pond as a breeding site, eg causing major macrophyte losses. Minor algal blooms not necessarily a problem	If significant pollution is found the source needs to be found and addressed. If pollution problem will not clear of itself within one season advice should be sought on cleaning the pond.
		Extent (depth and persistence).	Ponds should be of sufficient size and depth to avoid desiccation over the course of the breeding/ tadpole development season (February to mid-August) for at least one in every three years.	Premature drying out ie before mid-July, is acceptable in two out of three years provided that recruitment in the third year is very successful. Three consecutive years of desiccation with no recruitment should be considered unfavourable.	
		Shading	Extent of shading	Slight shading is probably beneficial especially where trees are on the northern side of the pond. Ponds with more than 25% of their southern margin shaded or 50% of their total margin shaded are unfavourable.	

Operational feature	Criteria feature	Attribute	Measure	Target	Comments
		Fish	Absence of fish in ponds.	Unfavourable if any fish are present, including sticklebacks.	Action is less important if pond is likely to desiccate or if, for any reason, good levels of recruitment are found (tadpole counts).
Improved grassland and scrub (terrestrial habitats)	Great crested newt <i>Triturus cristatus</i>	Extent	Total area of site as notified	No loss of area or fragmentation of site. No barriers to newt movement between ponds	
		Habitat structure and quality	Structural variety of vegetation or habitat features within site	Extensive, structurally varied habitats in close proximity to (or continuous with) breeding pools. This includes the mixture of tall grass, scrub and trees. The habitats should offer refuges which are shaded and capable of retaining some moisture.	Type of habitat varies between sites. Record condition of site at time of selection and define components of structural variety. Absence or only small areas of such habitat may be unfavourable.