

A.1.1. CONTENTS

1	ITEM 2 OF SCHEDULE 5 (NO. 6): DEFINING THE SEASONAL PERIODS FOR SPA SEABIRD SPECIES	2
1.1	Summary of the issue	2
1.2	Justification for the seasonal periods used to date.....	2
1.3	Recommendation	6

TABLES

Table 1.1:	Seasonal periods as defined for the relevant seabird species in the supplementary advice packages for different SPAs	5
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1 ITEM 2 OF SCHEDULE 5 (NO. 6): DEFINING THE SEASONAL PERIODS FOR SPA SEABIRD SPECIES

1.1 Summary of the issue

1.1.1 The Environment Agency has identified discrepancies between the seasonal periods for the different SPA seabird species that are to be considered in the WDA HRA for the Sizewell C project (subsequently termed the Project) as defined by the Applicant in the work that has been undertaken to date and as defined in Natural England's supplementary advice packages for the SPAs of relevance.

1.1.2 Consequently, the Environment Agency has requested that consideration be given to the information in the supplementary advice packages and that appropriate time periods for analysis relating to each of the SPA seabird species be proposed. This is detailed below.

1.2 Justification for the seasonal periods used to date

a) Species and SPA populations of relevance

1.2.10 The species and SPA populations of relevance are as follows:

- Alde-Ore Estuary SPA and Ramsar site – breeding populations of Sandwich tern, little tern, lesser black-backed gull
- Benacre to Easton Bavents SPA – breeding population of little tern
- Minsmere-Walberswick SPA and Ramsar site - breeding population of little tern
- Outer Thames Estuary SPA – breeding season populations of common tern and little tern; non-breeding population of red-throated diver.

In relation to the common tern and little tern qualifying features of the Outer Thames Estuary SPA, it is important to note that whilst these qualifying features are associated with breeding populations of these species, this SPA (in the main part) provides supporting habitat for these breeding populations (as opposed to supporting breeding colonies of these species).

b) Basis for the seasonal periods used to date

1.2.11 To date, the assessments undertaken for the Project have used the following seasonal periods for the above SPA seabird species:

- Sandwich tern – April to August (inclusive)
- Common tern – May to August (inclusive)
- Little tern – May to August (inclusive)
- Lesser black-backed gull – April to August (inclusive)
- Red-throated diver – September to March (inclusive)

1.2.12 The basis for the above seasonal periods comes, in the main part, from Furness (2015)¹. Furness (2015) is a substantive and authoritative review of the Biologically Defined Minimum Population Scales (BDMPS) relevant to a wide range of the seabird species that occur in UK waters. This work was undertaken in response to the unprecedented amount of marine renewables development (ongoing and proposed) in UK waters, with the aim of better enabling impacts on seabird populations to be addressed over the full annual cycle. As such, a key underpinning element of this work is defining the different seasonal periods of each of the species considered. Furness (2015) was commissioned by Natural England, and is widely used and relied upon by the range of bodies that are involved in renewables (and indeed other marine) developments in UK waters.

1.2.13 The breeding season definitions provided by Furness (2015) match those above for Sandwich tern, common tern and lesser black-backed gull. In each of these cases, this refers to the ‘full breeding season’ for the species, as opposed to the more limited ‘migration-free’ part of the breeding season. Furness (2015) does not include consideration of little tern (presumably because little tern rarely occur in the more offshore waters typically affected by marine renewables developments).

1.2.14 In relation to red-throated diver, Furness (2015) defines three distinct non-breeding periods – i.e.:

- Post-breeding migration in UK waters – September to November
- Migration-free winter season – December to January
- Return migration through UK waters – February to April

1.2.15 Thus, the seasonal period that has been applied to the Outer Thames Estuary red-throated diver population in the Project’s assessment work to date encompasses the full extent of these periods, except for the month of

¹ Furness, RW (2015) *Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS)*. Natural England Commissioned Reports, No. 164.

April. Notably, Furness (2015) defines the full breeding season for red-throated diver as March to August and the migration-free part of the breeding season as May to August.

1.2.16 For little tern, the NatureScot guidance on Seasonal Periods for Birds in the Scottish Marine Environment² defines the breeding season for little tern as mid-May to end August. This supports the use of the May to August breeding season used in the assessment work for the Project, given that the start of the breeding season in Scotland is expected to be slightly later than in Suffolk.

1.2.17 The seasonal periods as defined above have been used in the shadow HRA undertaken for the DCO Examination of the Project. This has been subject to intensive review by Natural England but no comments have been raised in relation to these seasonal periods, nor has there been any suggestion that they may not be the most appropriate periods on which to base analyses and assessment of effects.

1.2.18 Furthermore, scrutiny of the assessments for other recent DCO projects in English waters reveals that they have used the same (or very similar) seasonal periods for the above species as used by this Project. Thus, the assessments for the East Anglia ONE North, East Anglia TWO, Norfolk Boreas and Norfolk Vanguard wind farms all use the following definitions:

- Sandwich tern breeding season: April to August (inclusive)
- Common tern breeding season: May to August (inclusive)
- Lesser black-backed gull breeding season: April to August (inclusive)
- Red-throated diver non-breeding periods: September to April (inclusive).

Review of the Natural England Written Representations for these four projects reveals no comments on the use of these seasonal periods (noting that all of these projects are also located in southeastern English waters). None of these projects include consideration of common tern or little tern (so provide no definitions of their seasonal periods for comparison).

c) [Consideration of the information on seasonal periods provided in SPA supplementary advice packages](#)

1.2.19 The information on seasonal periods provided in supplementary advice packages for the relevant SPAs and qualifying features is detailed in Table 1.1 below. This includes SPAs with colony populations that contribute to the

² [Guidance note - Seasonal definitions for birds in the Scottish Marine Environment.pdf \(nature.scot\)](#)

qualifying features of the Outer Thames Estuary SPA (because they are relevant to considering the seasonal periods that apply to the qualifying features of the Outer Thames Estuary SPA).

Table 1.1: Seasonal periods as defined for the relevant seabird species in the supplementary advice packages for different SPAs

Species	SPA	Defined seasonal period in supplementary advice package
Sandwich tern	Alde-Ore Estuary	April - August
Common tern	Outer Thames Estuary	April - August
	Foulness*	May - August
	Breydon water*	April - August
Little tern	Alde-Ore Estuary	April - August
	Minsmere-Walberswick	April - August
	Benacre to Easton Bavents	April - September
	Outer Thames Estuary	April - August
	Foulness*	May - August
	Thanet Coast and Sandwich Bay*	May - August
Lesser black-backed gull	Alde-Ore Estuary	February - August
Red-throated diver	Outer Thames Estuary	October - May
*SPAs which are included for consideration on the basis that the colony populations of the relevant species contribute to the Outer Thames Estuary SPA population.		

1.2.20 The details in Table 1.1 demonstrate discrepancies between the seasonal periods proposed in the supplementary advice packages and those used in the assessments undertaken by the Project (to date) for all species except Sandwich tern. However, it also the case that for those species which are relevant to multiple SPAs (i.e. little tern and common tern), the supplementary advice provided for the different SPAs is also inconsistent in this regard. Given that these SPAs are all located within southeast England (and within relatively close proximity of each other) it is biologically implausible that the seasonal periods for the same species should differ between these sites.

1.2.21 Furthermore, the seasonal periods proposed in the supplementary advice packages frequently do not accord with Furness (2015), with no details or rationale presented to support this deviation from Furness (2015). In

contrast, Furness (2015) sets out the basis for defining the seasonal periods. Also, as evidenced above, the seasonal periods defined by Furness (2015) are widely used and appear to be fully endorsed by Natural England (which is unsurprising, given that this is a Natural England commissioned report).

1.2.22 It is unclear why the seasonal periods proposed in the supplementary advice packages should (sometimes) differ from the standard accepted periods used for these species. However, one possibility is that they may sometimes refer to the overall periods when individuals of a particular species occur at the site. If this is the case, it is important to recognise that this may not equate to the period of relevance for the actual SPA qualifying feature. For example, in the case of tern species, birds will occur at coastal SPAs during the passage periods, but these passage birds do not belong to the SPA breeding populations which are the defined qualifying features of the SPA.

1.2.23 Further reason to consider the seasonal periods proposed in the supplementary advice packages to be unsuitable for assessment purposes is that they may also be inconsistent with the actual supplementary advice provided on the conservation objectives. For example, in the case of the Outer Thames Estuary SPA and red-throated diver, the supplementary advice on the conservation objectives clearly states that the season of relevance to this feature is the ‘non-breeding season (winter and/or passage season)’. Such a definition cannot include May (compare Table 1.1), which for red-throated diver is within the core ‘migration-free’ breeding season (Furness 2015).

1.3 Recommendation

1.3.9 The seasonal periods used for SPA seabirds in the assessments undertaken for the Project to date follow the best available evidence (as detailed in Furness 2015) and are consistent with those used in other DCO submissions. As with these other DCO submissions, Natural England have accepted these as being acceptable for use in the shadow HRA undertaken as part of the Project’s DCO submission.

1.3.10 By contrast, there is inconsistency in the seasonal periods as proposed in the supplementary advice packages and no rationale or explanation provided as to why they should deviate from those periods advised in Furness (2015).

1.3.11 Consequently, it is recommended that any further analyses undertaken in relation to assessing potential effects of the Project on the SPA seabird qualifying features should be based upon the same seasonal periods as used to date.