



Arun Valley Condition Review (Freshwater-dependent features) Summary

Why was the condition review undertaken?

Natural England periodically reviews SSSIs across the country in order to better understand their condition, and any pressures that they may be facing. Undertaking periodic reviews of SSSIs helps us to ensure that the favourable condition status of a site continues to be met, or alternatively, what measures are required to bring a site back into favourable condition. Where site condition (based upon agreed Monitoring Specifications) is found to have changed, this is also recorded and published on Natural England's [designated site view](#).

The Arun Valley condition review looked at five SSSIs within the Arun Valley (River Arun catchment), these were [Arun Banks](#), [Upper Arun](#), and [Amberley Wild Brooks](#), [Pulborough Brooks](#) & [Waltham Brooks SSSI](#)¹. Whilst the surveys undertaken in support of the condition review looked at the potential impacts of water scarcity on each of the sites, the review was not undertaken with water neutrality in mind. Instead, it looked at a broad range of pressures that are likely to have a potential impact on the condition of the SSSIs. These pressures can be broadly summarised as: freshwater impacts, invasive non-native species, land management, pollution, and the vulnerability of the site to climate change.

Condition status of the Arun Valley floodplain sites

Each of the different features for the SSSIs will have a range of pre-defined attributes against which their condition is assessed, and these will vary depending on the type of feature being assessed. Typical attributes that are likely to be common across multiple features, include: habitat extent, population size, absence/presence (of a specific feature), or habitat composition. Other features will also have specific attributes such as water depth, or water quality.

The published condition status of each feature is reflective of Natural England's precautionary approach wherein if an attribute of a feature is Unfavourable, then the feature as a whole should be assessed as being Unfavourable.

Whilst the condition review assessed the condition of the underpinning SSSIs, many of the features assessed will also form part of the European designated sites as well. Whilst many of the bird features were found to be in Unfavourable Declining condition, for some of the features (such as Bewick's swan) they are also declining nationally and these local declines may be

¹ Collectively, Amberley Wild Brooks, Pulborough Brooks and Waltham Brooks SSSIs are grouped together within the condition review and referred to as 'floodplain sites'. The Arun Valley SAC is underpinned by Amberley Wild Brooks and Pulborough Brooks SSSI, whereas the Arun Valley SPA and Ramsar are underpinned by all three floodplain sites.

indicative of wider trends instead. For others, there are some fluctuations of numbers over-time, and the condition review provides further commentary on each of them, as well as comments on how the confidence rating was reached for each feature.

A summary of the condition for each of the features is included within Appendix A.

Pressures – Water scarcity

Evidence collected as part of the condition review supports the conclusions of earlier studies (including earlier condition assessments undertaken by Natural England), indicating that a broad range of issues, including water availability, was having an adverse impact upon the condition of the Arun Valley sites. It is however, recognised that there are a broad range of factors (including climate change) that are likely to be contributing to the drying of the site, and the reduced water levels within it. The potential effects of climate change on SSSIs is explored in further detail [here](#), using Amberley Wild Brooks SSSI as a case study.

Notwithstanding the fact that climatic effects are likely to be contributing to the drying of the site, it remains Natural England's view that other factors, such as abstraction, cannot be ruled out as a contributing factor either. Anecdotal evidence also indicates that minimum water levels are not being met within the ditches across the three sites and on occasions are shown to be drying out, even in the absence of prolonged periods of dry / 'drought' conditions.

Whilst it is still not possible to rule an impact from current abstractions on the Arun Valley sites, there is however, evidence that there is a connection between the aquifer, Southern Water's groundwater abstraction, and the floodplain designated sites. Therefore, it remains our advice that an adverse effect on integrity cannot be ruled out for proposals that result in a net increase in water use within the Sussex North Water Supply Zone

Pressures – Water quality

Across each of the three floodplain sites the recently revised water quality targets (for both Total Nitrogen and Total Phosphorous), were found to be significantly exceeded. Whilst these targets were significantly higher than those required to achieve favourable condition, initial assessments undertaken have concluded that the primary source of nutrients is from diffuse pollution (i.e., local inputs, drainage and runoff from the local catchment) and inputs from the rivers Rother and Stor, and Upper Arun in flood event conditions². As such, it was concluded that the most appropriate way of addressing elevated nutrient levels was to work with landowners and to focus on improvements of livestock and arable land management.

The exception to this trend though, was at Waltham Brooks SSSI where it was identified that there is a significant input of nutrients into the SSSI from the Coldwaltham Brooks WwTW. Therefore, the most appropriate way of addressing the high levels of nutrients entering the SSSI (from the WwTW), is through upgrades to the WwTW (which Southern Water have proposed to be secured through WINEP).

² It is however, acknowledged within the condition review that there are some evidence gaps regarding the source apportionment of nutrient inputs, and that further action is required to address this.

Summary of our advice

Natural England's advice on addressing the impacts to the Arun Valley designated sites will not be subject to any significant changes and/or revisions once the condition review is published externally. Regarding the need to demonstrate water neutrality, it remains our view that an adverse effect on integrity cannot be ruled out due to ongoing uncertainty of the impacts that current levels of abstraction are having. However, Southern Water are undertaking an investigation (Hardham Basin Environmental Studies- due for completion in 2025) to fully understand the impacts of their abstraction on the Arun Valley sites.

Natural England will of course, continue to review our advice as new evidence becomes available. We are also confident that nutrient neutrality will not need to be rolled out within the Arun Valley catchment, despite high nutrient levels across the different sites. Instead, we are confident that reducing the high levels of nutrients within the sites can be achieved through working with landowners, and through securing upgrades to the Coldwaltham WwTW.

Notwithstanding the above, there are some outstanding evidence gaps (particularly around source apportionment of nutrients) that require further action to address. However, Natural England is confident in decisions that have been made thus far and the conclusions drawn from the assessments undertaken in support of this condition review.

Appendix A – SSSI Condition Status (Arun Valley floodplain sites)

Feature	Amberley Wild Brooks	Pulborough Brooks	Waltham Brooks
Ornithology	Condition Status Following Assessment		
Aggregations of non-breeding birds (ANBB) – variety of wintering species	Favourable ^(M)		
ANBB – Berwick’s swan, <i>Cygnus columbianus bewickii</i>	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)	Unfavourable Declining ^(M)
ANBB – Shoveler, <i>Spatula clypeata</i>	Favourable ^(L)	Unfavourable Declining ^(L)	Unfavourable Declining ^(M)
ANBB – Teal, <i>Anas crecca</i>	Favourable ^(H)	Favourable ^(H)	Unfavourable Declining ^(M)
ANBB – Pintail, <i>Anas acuta</i>		Unfavourable Declining ^(L)	
ANBB – Wigeon, <i>Mareca Penelope</i>		Unfavourable Declining ^(L)	
ANBB – Ruff, <i>Calidris pugnax</i>		Unfavourable Declining ^(H)	
Assemblages of breeding birds – Mixed; Lowland damp grassland, woodland	Not Assessed		
Assemblages of breeding birds – Lowland damp grasslands		Favourable ^(H)	Not assessed
Aggregations of breeding birds – Redshank, <i>Tringa tetanus</i>	Unfavourable Declining ^(H)		
Odonata	Condition Status Following Assessment		
Outstanding Odonata assemblage	Favourable ^(M)	Favourable ^(M)	
Rare Odonata: <i>Libellula fulva</i>, Scarce chaser		Favourable ^(L)	

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Feature	Amberley Wild Brooks	Pulborough Brooks	Waltham Brooks
Rare Odonata: <i>Gomphus vulgatissimus</i> , Club-tailed dragonfly		Unfavourable No Change ^(M)	
Invertebrates	Condition Status Following Assessment		
Outstanding diverse invertebrate assemblages (W21, W31, F21)	Unfavourable No Change ^(M)		
Outstanding diverse invertebrate assemblages (W21, W31)		Unfavourable No Change ^(M)	
Habitat Features	Condition Status Following Assessment		
Ditch systems	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)
Alluvial grazing marshes with ditches/swamp (S4, S5, S6, S7, S11, S12, S19 communities [note 1])	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)
Wet Woodland (W1, W5c, W6b, W10c)	Not Assessed		
Lowland neutral grassland (M23, MG6, M25) [note 1]	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)	Unfavourable Declining ^(H)
Plants	Condition Status Following Assessment		
Vascular Plant Assemblage [note 2]	Unfavourable Declining ^(M)	Unfavourable Declining ^(M)	Unfavourable Declining ^(M)
Population of Schedule 8 plant – <i>Leersia oryzoides</i> , Cut-grass	Unfavourable Declining ^(H)		Unfavourable Declining ^(H)
Population of RDB plant – <i>Carex vulpine</i> , True Fox-sedge	Unfavourable Declining ^(L)		