



Land Drainage Act 1991

PROPOSED ABOLITION OF THE RIVER ARUN INTERNAL DRAINAGE DISTRICT

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**WRITTEN REPRESENTATION OF NATURAL ENGLAND**

Dated 12 January 2018

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## 1. STATUS AND FUNCTIONS OF NATURAL ENGLAND

1.1 Natural England is a statutory body established under the Natural Environment and Rural Communities Act 2006 ('NERC Act'). Natural England is the statutory advisor to Government on nature conservation in England and promotes the conservation of England's wildlife and natural features. It is financed by the Department for Environment, Food and Rural Affairs ('Defra') but is a Non-Departmental Public Body, which forms its own views based on the best scientific evidence available.

1.2 Natural England works for people, places and nature, to enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas; promoting access, recreation and public well-being, and contributing to the way natural resources are managed so that they can be enjoyed now and by future generations.

1.3 Section 2 of the NERC Act provides that Natural England's general statutory purpose is:

'... to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development.'

1.4 Section 2(2) states that Natural England's general purpose includes

- promoting nature conservation and protecting biodiversity;
  - conserving and enhancing the landscape;
  - securing the provision and improvement of facilities for the study, understanding and enjoyment of the natural environment;
  - promoting access to the countryside and open spaces and encouraging open-air recreation; and
  - contributing, in other ways, to social and economic well-being through management of the natural environment.
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- Natural England is required to keep under review all matters relating to its general purpose,<sup>1</sup> and to provide public authorities with advice where they request this.<sup>2</sup> Natural England's remit extends to the territorial sea adjacent to England, up to the 12 nautical mile limit from the coastline.<sup>3</sup>

1.6 Natural England is a statutory consultee in respect of (amongst other matters):

- plans or projects that are subject to the requirements of the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations') which are likely to have a significant effect on European protected sites – that is, sites designated

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<sup>1</sup> NERC Act, s.3(1).

<sup>2</sup> NERC Act, s.4(1).

<sup>3</sup> NERC Act, s.1(3).

as Special Areas of Conservation ('SACs') and Special Protection Areas ('SPAs') for the purposes of the EU Habitats and Birds Directives – in England;<sup>4</sup>

- proposals likely to damage any of the flora, fauna or geological or physiographical features for which a Site of Special Scientific Interest ("SSSI") has been notified pursuant to the Wildlife and Countryside Act 1981 (as amended) ('WCA 1981');<sup>5</sup>
- In addition, Natural England performs duties relating to SSSIs under the WCA 1981, and in relation to European protected sites and species under the Habitats Regulations.
- research; advising conservation bodies including Natural England, and disseminating knowledge on nature conservation issues.<sup>6</sup>

## 2. Legislative Framework

### Duty to conserve biodiversity

2.1 Section 40 of the NERC Act imposes a '*duty to conserve biodiversity*' on public authorities, and the Secretary of State. In pursuance of this, section 40(1) states:

*'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.'*

For the purposes of the NERC Act, conservation includes restoring or enhancing a habitat or population of organisms.<sup>7</sup> The Secretary of State must in particular have regard to the Convention on Biological Diversity when performing his duty.<sup>8</sup>

2.2 Section 41 of the NERC Act requires the Secretary of State to publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity in England. Section 41(3) states:

'the Secretary of State must–

- (a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or

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<sup>4</sup> Regulation 63 of the Habitats Regs.

<sup>5</sup> Section 281 of the 1981 Act.

<sup>6</sup> NERC Act, ss.34-36.

<sup>7</sup> NERC Act, s.40(3).

<sup>8</sup> NERC Act, s.40(2).

- (b) promote the taking by others of such steps.'

### **European Sites**

2.3 The Under Secretary of State and Planning Inspector are each a 'competent authority' for the purposes of the Habitats Regulations, with a duty to have regard to the requirements of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ('the Habitats Directive') and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds ('Wild Birds Directive').<sup>9</sup> So far as lies within their powers, a competent authority in exercising any function in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds.<sup>10</sup>

The Under Secretary of State is also the 'appropriate authority' for the purposes of the Habitats Regulations.<sup>11</sup> She must accordingly exercise her functions which are relevant to nature conservation so as to secure compliance with the requirements of the Habitats Directive and Wild Birds Directive

2.4 The Wild Birds Directive applies to all species of naturally occurring birds in the wild state in the European territory of the UK, including their nests, eggs and habitats.<sup>12</sup> Article 2 of the Wild Birds Directive requires populations of wild birds to be maintained 'at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements'.<sup>13</sup> Article 3 requires Member States, in the light of Article 2, to 'take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats'. Article 5 requires Member States to take the requisite measures to establish a general system of protection for all their wild birds, prohibiting the deliberate killing or capture, deliberate destruction or removal of nests and eggs, and deliberate disturbance of the birds insofar as this is significant having regard to the objectives of the Directive. Article 4 requires SPAs to be established in respect of particular species, in order to ensure the survival and reproduction of these species in their area of distribution. In respect of SPAs, Article 4 requires that the Member States 'shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article'. It requires that '[o]utside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.' Article 13 provides that application of measures taken pursuant to the Directive may not lead to a deterioration in the present situation as regards the conservation of wild birds.

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<sup>9</sup> Habitats Regs, regs 7(1)(a), 3(1), and 9(3). Directive 2009/147/EC has replaced Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds.

<sup>10</sup> Habitats Regs, reg.9A(8).

<sup>11</sup> Habitats Regs, reg.3(1).

<sup>12</sup> Wild Birds Directive, art.1.

<sup>13</sup> Wild Birds Directive, article 2.

2.5 The Habitats Directive aims to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora. It provides that measures taken pursuant to the Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of community interest.<sup>14</sup>

2.6 Article 6 of the Habitats Directive applies both to SACs and to SPAs.<sup>15</sup> Article 6(2) requires that Member States shall take appropriate steps to avoid, in the European sites, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of the Habitats Directive. Article 6(3) requires that any project not directly connected with or necessary to the management of the European site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site the competent national authorities shall agree to the project only after having ascertained that it will not adversely affect the integrity of the site concerned, unless it meets the enumerated criteria for derogation.

2.7 If an adverse effect on the integrity of the site cannot be ruled out, then the effect of Article 6(4) is that the project may only be carried out where (i) there are no alternative solutions, (ii) it must go ahead for imperative reasons of overriding public interest, including reasons of a social or economic nature; and (iii) all compensatory measures necessary to protect the overall coherence of the Natura 2000' network are taken. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised as 'imperative reasons of overriding public importance' are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or such other matters contained in an opinion of the European Commission.<sup>16</sup>

2.8 The Regulations describe a sequence of steps to be taken by the competent authority in respect of a European site (including SPAs of relevance with regards these applications) when deciding whether to authorise a project. Those steps are:

**Step 1** Consider whether the project is directly connected with or necessary to the management of the site?<sup>17</sup> If not—

**Step 2** Consider<sup>18</sup> whether the project is likely to have a significant effect on the site, either alone or in combination with other plans or projects. If such an effect cannot be excluded –

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<sup>14</sup> Habitats Directive, art.2.

<sup>15</sup> Habitats Directive, art. 6 applies to SACs and art.7 applies it to SPAs designated under the Wild Birds Directive.

<sup>16</sup> Regulations 64 and 68 of the Habitats Regulations, transposing Article 6(4) of the Habitats Directive.

<sup>17</sup> Under regulation 63(1)(b) of the Habitats Regs

<sup>18</sup> Under regulation 63(1)(a) of the Habitats Regs

**Step 3** Make an appropriate assessment of the implications for the site in view of its current conservation objectives.<sup>19</sup> In so doing, it is mandatory to consult Natural England<sup>20</sup> and have regard to its representations, and optional to obtain the opinion of the general public.<sup>21</sup> The competent authority is empowered to require the Applicant to provide information for the purposes of the appropriate assessment, or to enable the authority to determine whether such an assessment is required.<sup>22</sup>

**Step 4** Consider<sup>23</sup> whether the project will adversely affect the integrity of the site, having regard to the manner in which it is proposed to be carried out, and any conditions or restrictions subject to which that authorisation might be given (the 'Integrity Test').

**Step 5** Reject the project, unless it is ascertained that the project will not adversely affect the integrity of the site.<sup>24</sup>

**Step 6** If the project fails the Integrity Test in respect of the site, consider, whether one is satisfied that there is no alternative solution.<sup>25</sup> If not so satisfied, reject the project; but if so satisfied, proceed to steps 7 and 8.

**Step 7** Consider whether one is satisfied that the project must be carried out for imperative reasons of overriding public interest.<sup>26</sup> If not, reject the application. If so, proceed to Step 8.

**Step 8** Consider whether one can secure that compensatory measures are taken which would be necessary to secure that the overall coherence of Natura 2000 is protected. If not, reject the application; if so, accept the application subject to requirements securing that the necessary compensatory measures will be implemented in the appropriate timeframe.<sup>27</sup>  
and

2.9 Under Article 6(3) of the Habitats Directive, 'an appropriate assessment of the implications for the site concerned of the plan or project implies that, prior to its approval, all aspects of the plan or project which can, by themselves or in combination with other plans or projects, affect the site's conservation objectives must be identified in the light of the best scientific knowledge in the field'.<sup>28</sup>

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<sup>19</sup> Under regulations 63(1) of the Habitats Regs.

<sup>20</sup> under regulations 63(3) of the Habitats Regs

<sup>21</sup> under regulation 63(4) of the Habitats Regs .

<sup>22</sup> By regulation 63(2) of the Habitats Regs

<sup>23</sup> Pursuant to regulation 63(5) and (6) of the Habitats Regs .

<sup>24</sup> Applying regulation 63(5) of the Habitats Regs, subject to regulation 64, .

<sup>25</sup> in accordance with regulation 64(1) of the Habitats Regs

<sup>26</sup> in accordance with regulation 64(1) of the Habitats Regs .

<sup>27</sup> As required by regulation 68 of the Habitats Regs

<sup>28</sup> CJEU Case C-127/02 *Waddenzee* at para 61.

## **Ramsar Convention**

- 2.10 The UK is a party to the 1971 Convention on Wetlands of International Importance, done at Ramsar, Iran ('the Ramsar Convention').
- 2.11 The Government designates Ramsar sites in accordance with the criteria set out in the Convention, in recognition of the international importance of these sites as a wetland wildlife habitat.
- 2.12 In accordance with *Government Circular: Biodiversity and Geological Conservation Statutory Obligations and their Impact within the Planning System* (ODPM 06/2005), and the *National Planning Policy Framework* (2012), paragraph 118, Ramsar sites are subject to the same procedures described in the preceding section (in relation to European sites) as a matter of UK Government Policy, in order to assist the Government in fully meeting its obligations under the Ramsar Convention.

## **Sites of Special Scientific Interest (SSSIs)**

- 2.13 SSSIs are designated as such by Natural England under section 28 of the WCA 1981, where we are of the opinion that land is of special interest by reason of any of its flora, fauna, or geological or physiographical features.
- 2.14 Section 28G of the WCA 1981 places legal obligations on public authorities in relation to SSSIs. These authorities are known as 'section 28G authorities', and the definition given at s.28G(3) embraces all public office-holders including the Under Secretary of State and the Planning Inspector.
- 2.15 An authority to whom section 28G applies has a duty in exercising its functions so far as their exercise is likely to affect the flora, fauna or geological or physiographical features by reason of which a SSSI is of special interest to:

*'take reasonable steps, consistent with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest.'*

- 2.16 In addition, where the permission of a section 28G authority is needed before proposed operations may be carried out, the section 28G authority must, in accordance with section 28i of the WCA 1981, take any advice received from Natural England into account:
- (a) in deciding whether or not to permit the proposed operations; and
  - (b) if it does decide to do so, in deciding what (if any) conditions are to be attached to the permission.

### 3. Background

3.1 The Environment Agency has previously been responsible for the management of internal Drainage Districts and their Boards (IDD/IDB) in Kent and East and West Sussex. The districts overlapped with a number of nationally and internationally designated sites. In 2012 the Environment Agency agreed with Defra to relinquish control of the IDDs.

3.2 The Lead Local Flood Authorities (LLFAs) are responsible for developing, maintaining and applying a strategy for local flood risk management and for maintaining a register of flood risk assets. LLFAs do not have a duty to take on the IDBs from the EA, this resulted in a range of approaches across the 8 IDDs being disbanded. In some cases the overlap was so small the IDD was simply disbanded (e.g. Chichester Drainage District) and in others a new IDD was established with a new board (e.g. Pevensey Levels).

3.3 In 2013 a steering group was set up to review the options for the future management of the three West Sussex IDDs, which included the River Arun IDD. Natural England, and a number of other organisations were members of the steering group.<sup>29</sup> The River Adur IDD did not have any overlapping water dependant designated sites and the overlap between the designated sites with the West Sussex IDD was very small and the interest features in these ditches were not considered sensitive to the IDD removal. The steering group recommended the option to abolish all three IDDs, subject to measures being in place to avoid adverse impacts on the designated sites within the River Arun IDD. In 2016 the Environment Agency advertised the draft order for the abolition of the River Arun IDD.

3.4 Natural England's principle role throughout the overarching IDD abolition process, in line with our statutory duties, has been to provide advice to the Environment Agency and the steering group for all the sites and in the case of the three West Sussex IDDs, on the potential risks to designated sites and the measures necessary to avoid, reduce or remedy any adverse impacts on them. Out of the three West Sussex IDDs, only the Arun Valley IDD was flagged as having risks to designated site features that would need to be addressed.

### 4. Statement of Matters

4.1 The Parliamentary Under Secretary of State for the Environment Dr Thérèse Coffey, has set out the matters on which she wishes to be informed for the purposes of her consideration of the draft order. Natural England is providing this response to address the following statement of matters:

- Matter 4: The likely environmental impacts of abolishing the Arun internal drainage district
- Matter 5: The sufficiency of the measures proposed by the Environment Agency for mitigating any adverse impacts of the abolition of the drainage district.

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<sup>29</sup> Environment Agency, West Sussex County Council, Adur-Worthing Borough Council, Chichester District Council, Arun District Council, Horsham District Council, Arun and Rother Rivers Trust, Ouse and Adur Rivers Trust, South Downs National Park, National Farmers Union, Country Land and Business Association

## 5. Conservation Designations, Interest Features and Site Condition

5.1 The following nationally and internationally designated sites sit within the River Arun IDD:

- Arun Banks SSSI
- Arundel Park SSSI
- Amberley Wild Brooks SSSI
- Pulborough Brooks SSSI
- Waltham Brooks SSSI
- Upper Arun SSSI
- Arun Valley Special Protection Area (SPA)
- Arun Valley Ramsar site
- Arun Valley Special Area of Conservation (SAC)

Amberley Wild Brooks SSSI, Pulborough Brooks SSSI and Waltham Brooks SSSI are component sites of the Arun Valley SPA and Ramsar site. Amberley Wild Brooks and Pulborough Brooks are component sites of the Arun Valley SAC. Arun Banks SSSI and Upper Arun SSSI were scoped out of assessment from the abolition of the Arun Valley IDD at an early stage. Both sites are part of the main river, with minimal overlap against the IDD so there would be no material changes in their management. These sites will not be considered further.

5.2 Designated sites represent the very best habitats and wildlife, and each site is notified for a range of habitats and species. Amberley Wild Brooks SSSI, Pulborough Brooks SSSI and Waltham Brooks SSSI are comprised primarily of wet grassland meadows dissected by a network of ditches, which support rich and diverse assemblage of invertebrates, vascular plants, and assemblage of wintering and breeding birds. Arundel Park is notified for breeding bird and invertebrate assemblage, woodland and calcareous grassland.

5.3. Natural England undertakes periodic monitoring of designated sites to assess whether the features of interest for which the site is notified are meeting their conservation objectives. The objectives for each SSSI are set out in Favourable Condition Tables (FCT). If all the interest features are meeting their objectives, then a site is considered to be in favourable condition. The requirements for SACs and SPAs are set out in conservation objectives as prescribed in the Habitats Directive.

5.4 The conservation objectives for the Arun Valley SPA and SAC are as follows:

### **Arun Valley SPA:**

- Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive.

### **Arun Valley SAC**

- 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 habitats and population of the qualifying feature.

**The Arun Valley SPA and SAC should maintain or restore:**

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;
- The supporting processes on which the habitats of the qualifying features rely;
- The populations of the qualifying features;
- The distribution of the qualifying features within the site.

5.5 If a designated site is in favourable condition this indicates that all the appropriate management measures are in place and all the features for which a site is notified are meeting their conservation objectives. If a site is in unfavourable recovering condition this indicates that all the management measures are in place to enable the site features to achieve favourable condition in the future.

The table below summarises the current condition of each designated site

**Table One Designated Site Condition and Features**

<b>Designated Site</b>	<b>Site Condition</b>	<b>Summary of Notified Features</b>
Amberley Wild Brooks SSSI	1,95% Favourable 98.95% Unfavourable Recovering	Outstanding assemblage of vascular plants and invertebrates Population of <i>Anisus vorticulus</i> , Little ramshorn whirlpool snail Assemblage of breeding birds Non-breeding birds, teal, shoveler, Bewick's swan Used regularly by more than 20,000 waterfowl Lowland grassland Swamp
Arundel Park SSSI	58% Favourable 41.60% Unfavourable Recovering 0.40% Destroyed	Assemblage of breeding birds Invertebrate assemblage, including swollen spire snail- <i>Mercuria confuse</i> , a rare mollusc. Lowland calcareous grassland, Lowland mixed deciduous woodland
Pulborough Brooks SSSI	100% Favourable	Outstanding assemblage of vascular plants and invertebrates Population of <i>Anisus vorticulus</i> , Little ramshorn whirlpool snail Assemblage of breeding birds Non breeding birds: Teal, Pintail, Shoveler, Ruff, Bewick's swan Used regularly by more than 20,000 waterfowl
Waltham Brooks SSSI	100% Unfavourable Recovering	Outstanding assemblage of vascular plants Assemblage of breeding birds Wintering populations of Shoveler, Teal, Bewick's swan

		Used regularly by more than 20,000 water fowl Lowland grassland Swamp
Arun Valley SPA	Favourable Conservation Status for Waterfowl assemblage	Bewick's swan Waterfowl assemblage
Arun Valley SAC	Favourable Conservation Status	<i>Anisus vorticulus</i> , Little ramshorn whirlpool snail
Arun Valley Ramsar		Invertebrate and plant assemblage, Waterfowl assemblage

Table one in Appendix 1 sets out the designated site features and the current condition of each site in more detail. The citations, conservation objectives, favourable condition tables and map of the designated sites and site condition can be found in Appendices 2-8.

5.6 Site Improvement Plans (SIPs) have been developed for each Natura 2000 site in England. The plans provide a high level overview of the issues (both current and predicted) affecting the condition of the Natura 2000 features on the site(s) and outlines the priority measures required to improve the condition of the features. The main issues highlighted in the Arun Valley Site Improvement Plan (Appendix 9) are as follows:

- Maintain appropriate water levels
- Water Pollution –Improve water quality
- Lower Tidal River Arun Strategy (LTRAS)-Environment Agency Investigation into future management of the River Arun flood banks
- Maintain appropriate ditch management

## 6. Conservation Management

6.1 The management requirements for the designated features are as follows:

- **Ditch Management:** The diverse suite of aquatic plants and invertebrates for which the sites are designated require a cycle of ditch management, to ensure that there is a balance of habitats from early (recently cleared) to late successional ditches. Species such as sharp leaved pond weed *Potamogeton acutifolius* (a Ramsar interest feature) prefer mid successional ditches<sup>30</sup>, whilst *Anisus vorticulus*, Little ramshorn whirlpool snail (the SAC feature) prefers mid to late successional ditches.<sup>31</sup> The speed at which a ditch succeeds is dependant on the size and depth of the ditch, the prevailing weather conditions, the available nutrients as well as the water level and ditch management.
- **Water Levels:** Water levels need to be sufficiently low in the fields to provide optimal habitat for ground nesting breeding birds during the spring, and wet enough during the winter to support overwintering birds. During the spring and summer months there should be sufficient water levels within the ditches.
- **Grazing:** This is required to manage the sward height for a range of breeding birds. Some aquatic plant species and invertebrates are vulnerable to over shading from bankside vegetation. Grazing helps control this and cattle poached ditch edges provide bare mud, which provides important habitat for both aquatic plants and invertebrates.
- **Good Water Quality** Many of the aquatic invertebrates and plants are sensitive to changes in water quality.

6.2 Apart from one small area, all the land within Amberley Wild Brooks, Pulborough Brooks and Waltham Brooks is in Environmental Stewardship (ES). ES provides financial incentives to land managers to look after their environment through a range of options designed to conserve and restore wildlife habitats. ES is administered by Natural England. The Government has pledged to support ES in its current form until 2022<sup>32</sup> with a replacement scheme in the process of being designed. ES agreements are either of 5 or 10 years duration, with funding secured during the life time of an agreement. Management options are paid annually, 75% of which is paid in advance.

6.3 A range of ES options are in place across Amberley Wild Brooks, Pulborough Brooks and Waltham Brooks to support the management of the grassland and the complex of ditches through either the current scheme Countryside Stewardship<sup>33</sup>, or the predecessor Higher Level Stewardship.<sup>34</sup> Table Two details the key ES options and payment rates that are being used to manage the habitats and hence contribute to the achievement of favourable or recovering condition on Amberley Wild Brooks, Pulborough Brooks and Waltham Brooks.

<sup>30</sup>Newbold, C., 2003, The Ecology and Status of *Potamogeton acutifolius*, (Sharp-leaved pondweed) 2003. English Nature Report EIT340107 <http://publications.naturalengland.org.uk/publication/582843926524723>

<sup>31</sup>Natural England, 2014, A management protocol for the maintenance of drainage ditches and other water-bodies inhabited by the Little Whirlpool Ramshorn Snail, *Anisus vorticulus*, Annex B of Licence WML-CL14. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/669997/CL14\\_management\\_protocol.PDF](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/669997/CL14_management_protocol.PDF)

<sup>32</sup><https://www.gov.uk/government/speeches/the-unfrozen-moment-delivering-a-green-brexite>

<sup>33</sup><https://www.gov.uk/government/publications/countryside-stewardship-higher-tier-manual>

<sup>34</sup><http://publications.naturalengland.org.uk/publication/2827091>

**Table Two: Environmental Stewardship Options**

<b>Option</b>	<b>Payment Rate</b>	<b>Option Details</b>	<b>Contribution to Designated Site Objectives</b>
Management of ditches of high environmental value <sup>35</sup>	£37 per 100m	Manage ditches by rotational cutting, usually on a cycle from 1-5 years, leaving one side or section uncut as a refuge for plants and invertebrates	Cycle of management provides a range of habitats for each plant and invertebrate species to develop and thrive. Maintain and increase species populations and diversity Provides feeding habitat for birds Controls water levels
Management of grassland for breeding birds <sup>36</sup>	£264 per hectare	Manage the grassland by grazing with cattle, provide wet features for waders to feed, control rushes, scrub Use little or no fertiliser Control Water Levels	Provides wet grassland habitat for breeding wading birds. Waders able to nest and fledge their young Provides habitat for invertebrates and plants by poaching ditch edges Control rank grassland to reduce competition for plants
Management of grassland for overwintering birds <sup>37</sup>	£157 per hectare	Manage the grassland by grazing with cattle to provide wet features, control rushes, scrub Use little or no fertiliser Control Water Levels	Provides habitat in wet grassland for wintering wildfowl and wading birds. Fields have wet areas throughout the winter, attracting wading birds and wildfowl, which can feed and roost undisturbed

6.4 The IDB ditches and water control structures on Amberley Wild Brooks and Pulborough Brooks are managed by the IDB. The none IDB ditches are managed by the owner occupiers. A map of the IDB and non-IDB ditches can be found in Appendix 10.

6.5 A Water Level Management Plan (WLMP) is in place on Amberley Wild Brooks, which is administered by the IDB (Environment Agency). A WLMP is required on Amberley to coordinate site management across a number of landowners and coordinate control of a large network of IDB ditches and a number of water control structures. The WLMP was signed off by the Environment Agency and Natural England in 2006.

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<sup>35</sup><https://www.gov.uk/countryside-stewardship-grants/management-of-ditches-of-high-environmental-value-wt3>

<sup>36</sup><https://www.gov.uk/countryside-stewardship-grants/management-of-wet-grassland-for-breeding-waders-gs9>

<sup>37</sup><https://www.gov.uk/countryside-stewardship-grants/management-of-wet-grassland-for-wintering-waders-and-wildfowl-gs10>

## 7. The likely environmental impacts of abolishing the Arun Internal Drainage District

7.1 In the Arun Valley the IDB supports the condition of the designated sites, and thereby contributes to achieving the conservation objectives for the SSSI and international designations as follows.

- **Amberley Wild brooks SSSI, Arun Valley SPA, SAC and Ramsar:** In order to meet the sites conservation objectives appropriate water levels need to be maintained including coordination across the different site owners, in line with the water level management plan along with periodic ditch management of IDB ditches. The management of the none IDB ditches is funded by Environmental Stewardship.
- **Pulborough Brooks SSSI, Arun Valley SPA, SAC and Ramsar:** In order to meet the sites conservation objectives appropriate water levels need to be maintained along with periodic management of IDB ditches. There are two IDB ditches within the site. The management of none IDB ditches is funded through Environmental Stewardship. There are two water control structures on the IDB ditches.
- **Waltham Brooks SSSI, Arun Valley SPA and Ramsar:** The IDB ditches within the SSSI have not historically been managed by the Environment Agency. All the IDB and noen IDB ditches are managed by the landowners, primarily funded through Environmental Stewardship.
- **Arundel Park SSSI:** Maintain ditch management
- **Off site:** populations of the Ramsar and SAC species occur outside the designated sites boundary but are considered to be parts of the same population. There are several ditches outside of the SAC, to the south and west of Amberley Wild Brooks which have historically supported *Anisus vorticulus* - Little whirlpool ram's-horn snail, *Leersia oryzoides* -cut grass and *Potamogeton acutifolius* – sharp leaved pond weed, a rare species forming part of the vascular plant assemblage.

7.2. Natural England provided advice to the West Sussex IDD Steering Group and the Environment Agency on the likely impacts on the designated site features of the protected sites listed above, and the measures required to avoid such impacts throughout the IDD consultation process. Measures were required to ensure that there was a mechanism in place for the continued ditch management of IDB ditches within Amberley Wild Brooks SSSI and Pulborough Brooks SSSI, and measures in place for maintaining the control of water levels within Amberley Wild Brooks, Pulborough Brooks and Waltham Brooks SSSI.

7.3. In July 2015 Natural England received the Environment Agency's formal assessment of the impacts of the IDD abolition on the aforementioned SSSIs, and the SPA, SAC and Ramsar. The SSSI was assessed under the provisions of Section 28I of the Wildlife & Countryside Act 1981 (as amended). An appropriate assessment of the SPA, SAC and Ramsar was undertaken (Appendix 11).

7.4 The assessments concluded that there would be no likely damage to Arundel Park SSSI. The assessment also concluded there would be no likely damage to Amberley Wild Brooks SSSI, Pulborough Brooks SSSI, and Waltham Brooks SSSI, and no likely significant effect

on Arun Valley SPA, SAC and Ramsar site. The Environment Agency proposed the following measures to address the risk of impacts of the IDD abolition:

- Enmainment<sup>38</sup> of Amberley Wild Brooks, which would enable the Environment Agency to continue to manage the IDB ditches, water control structures and coordinate the WLMP.
- Pulborough Brooks: Funding for ditch management, to be delivered via Countryside Stewardship.

7.5. Natural England gave assent (under Section 28H of the Wildlife and Countryside Act, 1981 (As Amended)) for the abolition of the Arun Valley IDD with respect to Amberley Wild Brooks SSSI, Waltham Brooks SSSI and Arundel Park SSSI. The latter on receipt of additional information from the Environment Agency confirming that the abolition of the IDD was not likely to damage the SSSI (Appendices 12 and 13). Natural England requested further assessment of the potential impacts on the swollen spine snail, (which requires specialised habitat requirements) from the cessation of ditch management. The Environment Agency confirmed that the main stream flowing through the SSSI would continue to be managed as it was classed as main river. (Appendix 14). The enmainment of the IDD ditches within Amberley Wild Brooks SSSI was assented at the same time.

7.6 Natural England requested further information on how populations of *Potamogeton acutifolius* and *Anisus vorticulus* would be maintained outside of the Arun Valley SAC and Ramsar, and within Pulborough Brooks SSSI IDB ditches. (Appendix 12). The Environment Agency provided additional information to address both of these aspects: (Appendix 15)

- Maintenance of species outside of the SAC and Ramar: Data confirmed that *Potamogeton acutifolius* and *Anisus vorticulus* were not present in IDD ditches outside of the designated site.
- The Environment Agency confirmed that they would continue to manage the two IDB ditches within Pulborough Brooks SSSI until the commencement of a new Countryside Stewardship agreement. The Countryside Stewardship agreement commenced on 1st January 2018. The Environment Agency confirmed that the two IDB water control structures which would be transferred to the owners would be in working condition, prior to the abolition of the IDD.
- These measures were incorporated into a revised Habitat Regulation Assessment (HRA) and SSSI assessment, which Natural England received in May 2017 (Appendices 16 and 17). Natural England gave assent for the abolition of the Arun Valley IDD with respect to Pulborough Brooks SSSI. The assent was subject to a condition to ensure that the infrastructure necessary for the water level conservation management of the site is still in place and in a state fit for purpose for use by the owner occupier (Appendix 18).

7.7 In 2016 Natural England was informed by the Environment Agency that an IDB pumping station at Greatham was likely to be decommissioned as the owner of the land on which the pump was located did not want to take on the responsibility of maintaining the structure if the IDD was abolished. Investigations carried out by the Environment Agency confirmed that the Greatham pump was used to control water levels within Waltham Brooks SSSI at certain times of the year. Natural England requested confirmation from the Environment Agency that measures would be in place to address this issue. The Environment Agency has since worked with the landowners and a solution has been found which would enable the owners to control water levels within the site if required, if the pump is decommissioned.

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<sup>38</sup> Enmainment is a legal mechanism to provide the Environment Agency with the powers necessary to continue to manage the IDB ditches by designating them as main river water courses

**8. The sufficiency of measures proposed by the Environment Agency for mitigating any adverse environmental impacts.**

8.1 Table Three details the likely impacts, measures in place to avoid impacts, and the effectiveness of the measures for each designated site.

**Table Three Summary of impacts, avoidance measures and efficacy of the avoidance measures**

<b>Designated Site</b>	<b>Issue</b>	<b>Measure</b>	<b>Effectiveness</b>
<b>Amberley Wild Brooks SSSI, Arun Valley SAC, SPA &amp; Ramsar</b>	In order to meet the sites conservation objectives appropriate water levels need to be maintained along with ditch management. A WLMP is in place, which is administered by the IDB (Environment Agency). A WLMP is required on Amberley to coordinate site management across a number of landowners and coordinate control of a large network of IDB ditches and water control structures. If the IDD was abolished without alternative measures in place there would be a significant impact on the flora and fauna for which the site is designated.	Enmainment of the IDB watercourses and structures will ensure that the Environment Agency has the powers to continue to maintain and coordinate ditch and water level management across the site. The enmainment order was published in March 2017.	<p>If the IDD is abolished, provided the enmainment powers are secured and in place when the IDD is abolished, and the Environment Agency continue to manage and coordinate the IDB ditches and water control structures there will be no likely damage to the SSSI.</p> <p>Provided the enmainment powers are secured and in place when the IDD is abolished and Environment Agency continue to manage the IDB ditches and water control structures Natural England is certain that the abolition of the IDD will not adversely effect the integrity of the Arun Valley SAC, Ramsar or SPA.</p>
<b>Arundel Park SSSI</b>	The swollen spine snail, a rare mollusc, requires specific habitat requirements. If a cycle of ditch management discontinued this would have an adverse impact on the snail population.	The main ditch within the SSSI, being part of the IDD network, will continued to be managed by the Environment Agency.	There should be no likely damage to the SSSI, as the management regime will continue.

Designated Site	Issue	Measure	Effectiveness
<p><b>Pulborough Brooks SSSI, Arun Valley SAC, SPA &amp; Ramsar</b></p>	<p>In order to meet the sites conservation objectives appropriate water levels need to be maintained along with ditch management. If the IDD was abolished without alternative measures in place there would be an impact on the flora and fauna for which the site is designated.</p>	<p>The two IDB ditches currently managed by the Environment Agency will be managed by the owners. Funding for ditch management will be in place via a Countryside Stewardship agreement, which commenced on the 01 January 2018. The two IDB water control structures are being left in working order. Given that the ditches are in favourable condition, and the majority of ditches (90%) within the SSSI are managed by the owners with funding from Environmental Stewardship the IDD is not the only mechanism available, or necessarily the most appropriate in this case.</p>	<p>If the IDD is abolished, provided the enmainment powers are secured and in place when the IDD is abolished, and the Environment Agency continue to manage the IDB ditches and water control structures there will be no likely damage to the SSSI.</p> <p>Natural England is certain that the abolition of the IDD will not adversely effect the integrity of the Arun Valley SAC, Ramsar or SPA.</p>
<p><b>Waltham Brooks SSSI, Arun Valley SPA &amp; Ramsar</b></p>	<p>In order to meet the sites conservation objectives appropriate water levels need to be maintained.</p> <p>The off- site IDB pumping station, if not maintained, may increase flooding into the site at certain times of the year, which could have an impact on the designated features.</p>	<p>The Environment Agency have proposed a scheme on site which will enable the owners to control water levels when necessary.</p>	<p>Provided the the water control scheme is secured, in place and operable when the IDD is abolished there will be no damage to the SSSI,</p> <p>Natural England is certain that the abolition of the IDD will not adversely effect the integrity of the Arun Valley Ramsar or SPA.</p>

	<p>The ditches are managed by the owners, partly funded by Environmental Stewardship. The abolition of the IDD will make no material difference to the management of the ditches.</p>		<p>The current Environmental Stewardship expires in 2019.</p> <p>Future funding for ditch management should be available via a new Countryside Stewardship agreement, with a starting date of either 01 January 2019, if the current agreement is eligible for early roll over to the new scheme, or from 01 January 2020.</p> <p>In the interim, funding should be available for ongoing ditch management through the existing Environmental Stewardship agreement.</p>
<b>Off-site impacts</b>	<p>If present in IDB ditches, species that require rotational ditch management and appropriate water levels (including <i>Potamogeton acutifolius</i> and <i>Anisus vorticulus</i>) would be impacted.</p>	<p>Survey confirmation that these species were not present in IDB ditches outside of the designated sites.</p>	<p>As the key species for which the sites have been designated are not present in the IDB ditches, Natural England is certain that the abolition of the IDD will not adversely effect the integrity of the Arun Valley SAC, Ramsar or SPA.</p>

## **Summary**

8.2 It is Natural England's view that there would be no material change to the management of the designated sites whether the existing arrangement remains in place, or the IDD is abolished with the mechanisms agreed in place. If the IDD is abolished, provided all the measures detailed in table three are in place and in operation at the time of the abolition, there will be no likely damage to Amberley Wild Brooks, Arundel Park, Pulborough Brooks and Waltham Brooks SSSIs and we are certain that there will be no adverse effect upon the integrity of the Arun Valley SPA, SAC or Ramsar.