

The Sizewell C Project

9.8 Wet Woodland Strategy - Tracked Changes Version

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1 EXECUTIVE SUMMARY

- 1.1.1 The Sizewell C (SZC) proposals would lead to the permanent loss of approximately 3.06ha of 'wet woodland' habitat from the Sizewell Marshes SSSI. This document has been prepared to define SZC Co's commitment to provide appropriate compensation measures for the loss of wet woodland habitat through the creation of compensatory wet woodland habitats. SZC Co. proposes that a 'wet woodland plan' be prepared and be subject to a DCO Requirement.
- 1.1.2 Although wet woodland in the SSSI is of value in its own right, it is the importance of the wet woodland as part of the habitat mosaic for invertebrates which is regarded as of being of greater importance. It is for this reason that this strategy proposes delivering the majority of the wet woodland habitats at the fen meadow habitat compensation sites at Benhall and / or Pakenham. A total of 3.06ha of wet woodland will be created with 0.7ha being created on the EDF Energy estate Estate and 2.36ha being created between the Benhall and Pakenham sites.
- 1.1.3 The strategy sets out a series of actions, which include the creation of the wet woodland plan and a series of management actions, designed to create developing the offsite 2.36ha of wet woodland within in ten year period. The strategy also describes the role of the Environment Review Group in relation to the strategy.
- 1.1.4 In the unlikely event that there is a shortfall in the 2.36ha which is to be delivered between the Benhall and Pakenham sites after a ten year period, the balance of wet woodland would be delivered on newly created wetland areas on the EDF Energy estate although this is not the preferred approach.
- 1.1.5 The strategy also includes some measures within the retained wet woodland in the Sizewell Marshes SSSI which will be used to enhance the age profile of the woodland to support invertebrate populations until the new wet woodlands are established.
- 1.1.6 Level 1 control documents will either be certified under the DCO at grant or annexed to the Deed of Obligation (DoO). All are secured and legally enforceable. Some Level 1 documents are compliance documents and must be complied with when certain activities are carried out. Other Level 1 documents are strategies or draft plans which set the boundaries for a subsequent Level 2 document which is required to be approved by a body or governance group. The obligations in the DCO and DoO set out the status of each Level 1 document.



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- 1.1.7 This strategy is a Level 1 document. Pursuant to Requirement 14B of the dDCO, prior to any vegetation clearance within the Sizewell Marshes SSSI, a Wet Woodland Plan (a Level 2 document) will be submitted for approval by East Suffolk Council, in consultation with the relevant Statutory Conservation Body and such plan must be in general accordance with this draft strategy and the draft Wet Woodland Plan (Doc Ref. 9.108).
- 1.1.8 Where further documents or details require approval, this document states which body or governance group is responsible for the approval and/or must be consulted. Any approvals by East Suffolk Council, Suffolk County Council or the MMO will be carried out in accordance with the procedure in Schedule 23 of the dDCO. The Deed of Obligation establishes the governance groups and sets out how these governance groups will run and, where appropriate, how decisions (including approvals) should be made. Any updates to these further documents or details must be approved by the same body or governance group and through the same consultation and procedure as the original document or details.
- 1.1.9 Where separate Level 1 or Level 2 control documents include measures that are relevant to the measures within this document, those measures have not been duplicated in this document, but cross-references have been included for context. Where separate legislation, consents, permits and licences are described in this document they are set out in the Schedule of Other Consents, Licences and Agreements (Doc Ref. 5.11(B))
- 1.1.10 For the purposes of this document the term 'SZC Co.' refers to NNB Nuclear Generation (SZC) Limited (or any other undertaker as defined by the dDCO), its appointed representatives and the appointed construction contractors.



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2 BACKGROUND

- 2.1.1 The Sizewell C (SZC)—proposals would lead to the permanent loss of approximately 3.06ha of 'wet woodland' habitat from the Sizewell Marshes SSSI. This permanent loss arises from the size and location of the SZC main platform to the north of the existing Sizewell B station.
- 2.1.2 The Sizewell Marshes SSSI citation sheet (Ref. 1) describes Sizewell Marshes as being 'important for their large area of lowland, unimproved wet meadows which support outstanding assemblages of invertebrates and breeding birds', and also that 'In addition, several areas of reedbed dominated by Common Reed Phragmites and alder carr occur.' In relation to the extensive ditch system, the citation notes that 'the variety of ditch depths and widths, together with their fringing vegetation provide an important contribution to the site's habitat value for invertebrates and birdlife' and more generally 'Sizewell Marshes are of exceptional interest for their invertebrate fauna, supporting a wide range of taxa and many nationally rare or scarce species.'
- Whilst wet woodland is not a habitat for which the SSSI is specifically designated, the 'exceptional ... invertebrate fauna' is likely to be at least partly dependent on wet woodland habitats. Similarly, the combination of habitats including the open ditches, the unimproved fen meadows and the wet woodland, all present in close proximity is likely to be important in supporting the invertebrate interest. In Table 14.9 of Volume 2, Chapter 14 of the Environmental Statement (ES) [AS-033], wet woodland is noted as being nationally scarce habitat listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act (Ref. 2) and the Suffolk Biodiversity Action Plan (BAP) (Ref. 3).
- 2.1.4 It should also be noted that coppicing of mature alder (*Alnus glutinosa*) trees within the wetlands is regularly undertaken as part of the ongoing management of the Sizewell Marshes SSSI, under the existing site management arrangements agreed with Natural England. This is undertaken to increase light levels to ditch habitats of importance to invertebrates and some plant species. The key point in the context of this wet woodland strategy is that whilst individual alders are unlikely to be of importance in their own right, the presence of a mix of age classes of trees, including coppice regrowth, is of importance.
- 2.1.5 The DCO application submitted in May 2020 included an area of proposed wet woodland habitat in a new wetland area in the north-east of the main development site. This area of compensatory habitat provision would would comprise 0.7ha of wet woodland and when successfully established would



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will reduce the net loss of wet woodland habitat to approximately 2.36ha, for which no compensatory habitat was identified in the submitted application. Compensation for this residual net loss of 2.36ha of wet woodland habitat is the focus of this strategy and together with the on-site 0.7ha provision, this will ensure a total of at least 3.06ha of compensatory wet woodland habitats are provided.

2.1.6 This document has been prepared to define SZC Co's commitment to provide appropriate compensation measures for the loss of wet woodland habitat through the creation of compensatory wet woodland habitats. SZC Co. proposes that a 'wet woodland plan' be prepared and be subject to a DCO Requirement, in the following form: has prepared the draft Wet Woodland Plan (Doc Ref. 9.108), which in its final form, will be submitted to East Suffolk Council for approval pursuant to Requirement 14B before any vegetation clearance works within the Sizewell Marshes SSSI can be carried out.

14B Main development site: Wet Woodland

(1) Vegetation clearance within Sizewell Marshes SSSI, in connection with Work No. 1A must not be commenced until a wet woodland plan for the development of wet woodland has been submitted to and approved by East Suffolk Council, in consultation with the relevant Statutory Nature Conservation Body. The wet woodland plan must be developed in general accordance with the Wet Woodland Strategy and include details of proposed works, including—

- (i) landscape and planting details;
- (ii) water management measures; and
- (iii) an implementation timetable for the works.
- (2) The wet woodland plan must be implemented as approved.



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3 SCOPE

- 3.1.1 This document addresses the compensatory habitats required for the permanent loss of wet woodland habitats from the Sizewell Marshes SSSI, associated with the construction of the Sizewell C nuclear power station. This impact is assessed in Section 14.7 of Volume 2, Chapter 14 of the ES <a href="[AS-033] and Section 2.9 h) iii) a) a) of the Volume 1, Chapter 2 of the First ES Addendum [AS-181].
- This document does not address other potential impacts on the wet woodland habitats which are included in the ES and subsequent ES Addenda, as relevant. These other impacts, on wet woodland or the SSSI as a whole, are assessed in Volume 2, Chapter 14 of the ES [AS-033], as identified in Table 2.1 below.

Table 3-1: References to wet woodland impacts in Volume 2, Chapter 14 of the Environmental Statement

Impact	Paragraph references
Temporary 'land take' or other use of land associated with installation of replacement overhead lines	14.3.34, 14.4.16, 14.7.125, 14.7.130-131
Air Quality impacts	14,7,149-160
Hydrological impacts	14.7.139-148

- Section 2.9 h) iii) a) a) of the Volume 1, Chapter 2 of the First ES

 Addendum [AS-181] provides an updated assessment (and revised land take calculations) to reflect the changes to the SSSI crossing design and concludes, in paragraph 2.9.65 that the effects of habitat loss would remain as described in the Volume 2, Chapter 14 of the ES [AS-033].
- 3.1.33.1.4 Mitigation measures for these impacts are defined within the ES as relevant and secured within the Code of Construction Practice (CoCP) [AS-274] (Doc Ref. 8.11(E)) (secured by Requirement 2 of the dDCO) and are not considered further.
- 3.1.43.1.5 This document is concerned only with the strategy for the provision of compensatory habitats in response to the proposed permanent loss of wet woodland habitats from the Sizewell Marshes SSSI. It does not address the merit or appropriateness of the loss assess the loss which is addressed in Volume 2, Chapter 14 of the ES [AS-033] and Section 2.9 h) iii) a) of the Volume 1, Chapter 2 of the First ES Addendum [AS-181].



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4 THE NEED FOR COMPENSATORY WET WOODLAND HABITAT

4.1.1 The overarching National Policy Statement (NPS) for Energy (EN-1) (Ref. 4) and NPS for Nuclear Power Generation (EN-6) (Ref. 5) provide the primary policy framework within which the application for development consent will be considered. Several paragraphs within NPS EN-1 are directed towards the issue of impacts on biodiversity interests and, specifically, land take from SSSIs. Two paragraphs within the Annex to NPS EN-6 are of particular relevance to the issue of land take from the Sizewell Marshes SSSI, as follows:

Table 4-1: NPS EN-1 and NPS EN-6

Ref.	NPS topic requirement
EN-1 5.3.7	'As a general principle, and subject to the specific policies below, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives []; where significant harm cannot be avoided, then appropriate compensation measures should be sought.'
EN-1 5.3.11	'Where a proposed development on land within or outside an SSI is likely to have an adverse effect on an SSSI (either individually or in combination with other developments), development consent should not normally be granted. Where an adverse effect, after mitigation, on the site's notified special interest features is likely, an exception should only be made where the benefits (including need) of the development at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs. The [IPC] should use requirements and/or planning obligations to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site's biodiversity or geological interest.'
EN-6 C.8.60	'Some responses focused on designated sites including Sizewell Marshes Site of Special Scientific Interest (SSSI) and Leiston-Aldeburgh SSSI, and potential effects on Minsmere-Walberswick Heaths and Marshes SSSI, from which the site boundary includes some land-take. Some responses questioned how direct land take could be mitigated.'



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Ref.	NPS topic requirement
EN-6 C.8.63	'The Appraisal of Sustainability identified the potential for the mitigation of biodiversity effects on sites of UK wide conservation importance (Sizewell Marshes SSSI), including the creation of replacement habitat. The Appraisal of Sustainability notes that developers could avoid or minimise losses and disturbance to protected species through careful site layout, design, routing, location of the development, associated infrastructure, and construction management and timings. The Appraisal of Sustainability finds that there is potential for habitat creation within the wider area in order to replace lost "wet meadows" habitats of the Sizewell Marshes SSSI, but also finds that it may not be possible to fully compensate for losses of this habitat. The applicant will need to develop an ecological mitigation and management plan to minimise the impacts.'

- 4.1.2 The provision of compensatory wet woodland habitats using the approach outlined in this strategy responds to the requirement for compensation set out in EN-1 5.3.7 and aligns with the direction to 'develop an ecological mitigation and management plan to minimise the impacts'. This strategy and documents which are developed in response to it form one element of such a plan.
- 4.1.3 It should be noted that the The Fen Meadow Strategy [AS-210] ([Doc Ref. 6.14 2.9.D(A)) and Draft Fen Meadow Plan (Doc Ref. 9.64(A)) (secured by Requirement 14A) addresses the specific direction in EN-6 C.8.63 to develop 'an ecological mitigation and management plan' to replace the 'lost "wet meadows". There is no similar direction in EN-6 to provide a plan for wet woodland.
- 4.1.4 SZC Co. is proposing areas of compensatory habitat at three off-site locations. These locations have been selected and sized to deliver fen meadow habitats but two of these sites also have the potential to support the creation of wet woodland. The conclusion reached in the Section 14.7 of Volume 2, Chapter 14 of the ES [AS-033] and Volume 21, Chapter 2, Section 2.9 h) iii) a) a) of the ES Addendum [AS-181], in relation to land take of wet woodland from the SSSI, is that there would be no significant residual effect provided that a wet woodland strategy, which is successfully implemented, delivers compensatory wet woodland habitats.
- 4.1.5 Although wet woodland is of value in its own right, it is the importance of the wet woodland as part of the habitat mosaic for invertebrates which is regarded as of being of greater importance. It is for this reason that delivering wet woodland alongside other habitats such as fen meadow is preferable to



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delivering them at entirely separate sites (see Section 4). The **ES** includes detailed assessments of the impacts on invertebrates of habitat loss in **Section 14.8** of **Volume 2**, **Chapter 14** [AS-033] and, as follows:

- Paragraphs 14.8.2, 14.8.25, 14.8.38, 14.8.58, 14.8.78, 14.8.98
- Tables 14.14, 14.15, 14.16
- 4.1.6 Volume 2, Chapter 2, Section 2.9 h) iii) a) b) of the ES Addendum [AS-181] identifies that whilst the proposed changes would changes to the application (accepted as part of the Sizewell C Project on 21 April 2021 [PD-013] and described in the Change Notification Report [AS-005]) will slightly reduce permanent land take of wet woodland and reduce the potential for fragmentation, the significance of the assessed likely effects would be are unchanged.
- 4.1.7 Based on National Vegetation Classification (NVC, Rodwell 1991 Ref. 6) survey data the wet woodland habitat within the Sizewell Marshes SSSI which would will be lost to permanent land take can be placed primarily within the W5 woodland category [AS-021](see National Vegetation Classification Surveys 2020 [AS-021] for further details). The defining characteristic, in what can be a habitat of relatively low floral diversity, is the presence of alder and this species is used as the key an indicator of wet woodland establishment within this strategy (Section 6 of this document).
- 4.1.8 W5 Alnus glutinosa Carex paniculata woodland is described as 'A community of base-rich, moderately eutrophic, wet to waterlogged organic soils on topogenous or soligenous mires. It is associated with fen peats in open water transitions, flood-plain mires and basin mires where there is strong influence from base-rich ground waters' (Ref. 7).
- 4.1.9 In order to compensate for the loss of wet woodland habitats from the SSSI, SZC Co. has considered those sites where the development of compensatory wet woodland habitats would be possible and which ultimately would be defined as W5 in the NVC. This is discussed in the Section 4 of this document.
- 4.1.10 SZC Co. is confident that it will be able to create the appropriate quantum of compensatory wet woodland habitats, given the suitability of the sites defined in **Section 4.** However, in order to provide further confidence that the loss would will be adequately compensated for and to recognise the risks which might arise outside of SZC Co.'s control, contingency provisions, based on alternative delivery of these habitats on the EDF Energy estate Estate, are defined in **Section 7** of this document.



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5 STUDIES TO DATE

- c) Off-site compensatory habitats Fen meadow sites
- 5.1.2 Given the acceptance of the introduction of the Pakenham site into the DCO application, three Three sites are included in the Sizewell C proposals, as defined in the Fen Meadow Strategy [AS-210](Doc Ref. 6.14 2.9.D(A)) and Draft Fen Meadow Plan (Doc Ref. 9.64(A)), to develop compensatory fen meadow habitats as follows:
 - Work no.6: Fen Meadow habitat at Halesworth.
 - Work no.7: Fen Meadow habitat at Benhall.
 - Work no. 18: Fen Meadow compensation site at Pakenham.
- As defined within the **Fen Meadow Strategy** [AS-210](Doc Ref. 6.14 2.9.D(A)), the focus at each site would-will be the creation of fen meadow habitats to maximise the extent and quality ensure the delivery of 4.14ha of compensatory fen meadow habitats at each site. However, at each of the three sites there are areas over and above the quantum required for to deliver 4.14ha of fen meadow which could be used to develop wet woodlands. The optimum loci for developing fen meadows total 8.1 ha across the three sites and the Fen Meadow Strategy requires the creation of at least 4.5ha of fen meadow. Further areas with potential total 13.5 ha across the three sites. In general, the same ground conditions which are favourable to the creation of fen meadow would are also be favourable to the creation of wet woodland and the delivery of wet woodland would focus on the areas with 'further potential' defined in the **Fen Meadow Strategy** [AS-210].
- A further consideration in relation to wet woodland is the proximity to other existing wet woodlands in the vicinity as this provides the opportunity for natural habitat linkages and natural colonisation by plants and invertebrates. The Halesworth site is more remote from existing wet woodland, but both Benhall and Pakenham have wet alder woodlands within the site boundary.
- 5.1.5 The focus of this wet woodland strategy is, therefore, on the creation of at least 2.36ha of new wet woodland at the two fen meadow sites of Benhall and Pakenham, whilst still maximising the extent delivering 4.14ha of fen meadow at those two locations. The creation of wet woodlands at these sites will create more diverse habitat mosaics at those locations which will—in the long term—be of greater value to invertebrates than if entirely new sites or locations had been identified. In discussion with ecology stakeholders, this integrated approach of co-locating habitats at the fen meadow compensatory habitat sites has been broadly supported.



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- Detailed site investigations are underway at these sites to monitor ground and surface water level flows and determine the management actions which will be described in the Draft Fen Meadow Plan (Doc Ref. 9.64(A)). These investigations and the measures subsequently set out in the Draft Fen Meadow Plan will-(Doc Ref. 9.64(A)) seek to maximise the extent of the establishment of fen meadow at each site and will-inform-have informed the preparation of a similar the Draft Wet Woodland Plan (Doc Ref. 9.108). These site investigations are outlined in the Fen Meadow Strategy ([AS-210] as updated by Doc Ref. 6.14 2.9.D(A)) and are not repeated here.
 - b) Enhancement of Sizewell Marshes SSSI wet woodlands
- In addition to the creation of new wet woodlands at the two sites detailed above, further mitigation would will be undertaken in the remaining wet woodlands at Sizewell Marshes SSSI, to enhance the aged communities of wet woodland, while the off-site wet woodland habitats develop. This would will enhance the value of the retained habitats to invertebrates and minimise the risk to species populations that may be dependent on particular age classes of trees. The approach would will comprise:
 - veteranisation of selected trees to accelerate the creation of standing dead wood;
 - pollarding or coppicing of selected trees, with dead wood retained in the vicinity, variously stacked or loose; and
 - any individual trees or tree groups managed as above would will be agreed with Natural England under the SSSI assent process, under Section 28H(1) of the Wildlife and Countryside Act 1981 (as amended and inserted by section 75 and Schedule 9 of the Countryside and Rights of Way Act 2000).
 - c) Potential for on-site compensatory habitats
- In addition, there are other opportunities to create additional wet woodland on-site. These are explained below and **Section 7** of this document explains that governance process that would-will determine where these additional opportunities should-will be taken.
- 5.1.9 Where habitats are lost, it is normally preferable to create compensatory habitats as close to the lost habitats as possible. This has been the approach used to create compensatory open water and reedbed wetland habitats at the Aldhurst Farm habitat creation site adjacent to Sizewell Marshes SSSI. However in 2015, it was concluded that there were no suitable areas within the EDF Energy estate Estate immediately adjacent to the SSSI which could



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be used to create fen meadow habitats (see **Fen Meadow Strategy** [AS-210] Doc Ref. 6.14 2.9.D(A)). This is predominantly a function of the topography and soil types and that there are no low-lying areas within the small Leiston drain catchment, but outside the SSSI, which might be suitable for such a habitat creation approach. The same is broadly true of wet woodland habitats, albeit that newly created open water and reedbed areas, such as part of the Aldhurst Farm wetlands, could be transitioned to wet woodland (see below).

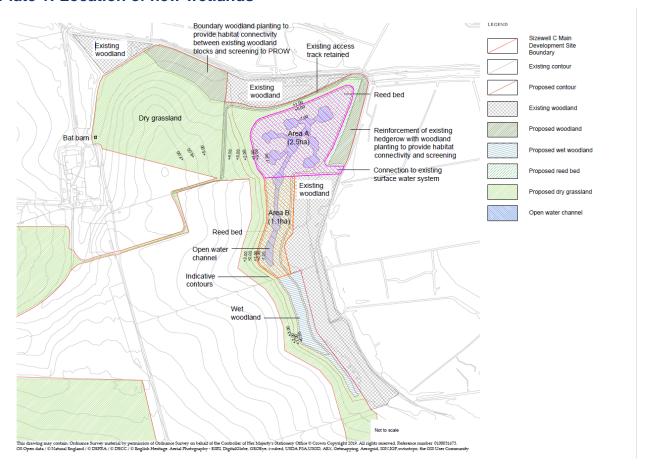
- A proposal to create wet woodland habitat in a new wetland corridor in the northeast of the EDF Energy estate Estate, within the marsh harrier habitat improvement area, is included within the Application. This would-will-involve the reprofiling of existing landforms, primarily through excavation, to create a wetland corridor at the same level as the Minsmere South Levels to the east. This area would provide 0.7ha of wet woodland and 1ha of reedbed (see Plate 1 below).
- In the original Application, a temporary water storage area was included to the north of the wetland corridor. However further design work has identified that the water storage area can now be temporarily located elsewhere on the construction site (see Volume 2, Figure 2.2.13 of the ES Addendum [AS_191]). SZC Co. now proposes to will use the storage area's original proposed location to instead provide additional, permanent, fluvial flood mitigation using excavation of the existing topography. Wetland habitat would will also be created in this area, comprising open water channels and wet reedbeds to provide high quality foraging habitats for marsh harriers and other species during the construction of Sizewell C. This area would will be directly linked to the proposed permanent wetland habitat corridor immediately to the south, described above, to create a single integrated wetland feature, as illustrated in Volume 2, Figure 2.2.14 of the ES Addendum [AS-191] and in Plate 1 below.
- 5.1.12 The flood mitigation area and wetland habitats would will be constructed during winter in the first two years of the construction phase to ensure that there is no ongoing construction disturbance to foraging marsh harriers during the summer.
- 5.1.13 This area has longer term potential as wet woodland. Once the construction of Sizewell C is complete and compensatory marsh harrier foraging habitats are no longer required, the open water and wet reedbed habitats (Area A and Area B, 3.6ha in total) (Plate 1) could theoretically be transitioned, in large part, to provide additional wet woodland habitats, either through natural successional processes or through planting. Using at least 2.36ha of this new wetland in addition to the 0.7ha to the south (see Plate 1) would will compensate for the loss of 3.06ha of wet woodland from the Sizewell



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Marshes SSSI. This could not be started until the end of the construction phase of Sizewell C.

Plate 1: Location of new wetlands



5.1.14 Ecological stakeholders, including Natural England, have indicated that the retention of these new open water and reedbed habitats as open water and reedbed habitats should be a priority rather than transitioning them to wet woodland habitat. This option would not provide the wet woodlands in close proximity to fen meadow habitats is therefore retained as a contingency provision only (see **Section 7**).

d) Aldhurst Farm

5.1.15 It would be theoretically possible to create an area of wet woodland habitat at Aldhurst Farm although this would be at the expense of an area of existing reedbed. However, the extent of existing reedbed which has been created in the new wetlands at Aldhurst Farm already greatly exceeds the extent of



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reedbed that will be lost from the SSSI. The Aldhurst Farm wetland includes approximately 5 ha of reedbed which has been successfully established, compared with 2.93ha¹ of reedbed which would be lost to provide the Sizewell C platform. It is therefore considered that there is an 'over-provision' of approximately 2ha reedbed habitat at Aldhurst Farm, which could be repurposed to provide up to 2ha of wet woodland.

5.1.16 The potential for creation of wet woodland as part of the Aldhurst Farm wetlands has previously been discussed with Natural England. Delivery of wet woodland at Aldhurst Farm—<u>, if progressed</u>, would be aligned with the creation of compensatory habitat in close proximity to the SSSI. However recent consultation with ecological stakeholders, including Natural England indicates a clear preference for retaining the newly created open water and reedbed habitats at Aldhurst Farm. For that reason and in addition, would not provide the wet woodlands in close proximity to fen meadow habitats. For these reasons, this strategy focusses on delivery at off-site locations, albeit the option of delivery at Aldhurst Farm, as described above, is held for contingency provision (see **Section 7**).

e) Wet Woodland Plan

- The draft_Wet Woodland Plan_will define_, submitted at Examination Deadline 8 (Doc Ref. 9.108), defines the management interventions required to create wet woodland habitats on the Benhall and Pakenham sites. The measures will include monitoring and any remedial interventions that may be required to ensure the successfully delivery of wet woodland of SSSI quality at relevant sites. The draft Wet Woodland Plan would include includes local groundworks to provide a range of topographic levels and to enable the establishment of wet woodland. The draft Wet Woodland Plan defines further management measures including both fallen and standing deadwood would_which will be provided to represent the variety of niches available to the invertebrate communities in the woodlands at Sizewell Marshes SSSI. It The final Wet Woodland Plan will be submitted to East Suffolk Council for approval in consultation with the relevant Statutory Nature Conservation Body pursuant to the DCO_dDCO_Requirement 14B.
- 5.1.18 SZC Co. <u>will_must_implement</u> the Wet Woodland Plan as approved, under the direction of the Environment Review Group (see below). Further details of the proposed approach are provided in **Section 56**.

¹ based on current and NVC mapping data, see Volume 1, Chapter 2 of the ES Addendum, Table 2.19 [AS-182]



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6 ESTABLISHING NEW WET WOODLAND HABITATS

- 6.1.1 This section outlines the approach for delivering compensatory wet woodland habitats, the interfaces with stakeholders and the monitoring and remedial actions which will be deployed to maximise the chances of successfully establishing the habitat.
- 6.1.2 Wet woodland establishment is likely to be a long-term endeavour and a tenyear programme of works is outlined below.
 - a) Environment Review Ecology Working Group
- 6.1.3 A Review An Ecology Working Group is to be established under the terms of the Section 106 Agreement and would Schedule 11 of the Deed of Obligation (Doc Ref. 8.17(G)) and will be responsible for overseeing the establishment of the compensatory habitat works including the delivery of the final Wet Woodland Plan as approved by East Suffolk Council pursuant to Requirement 14B.
- 6.1.4 Further details of the role of the Ecology Working Group are included in the Section 106 Agreement-Schedule 11 of the Deed of Obligation (Doc Ref. 8.17(G)) and the role of the Group would-will-include:
 - reviewing the a draft <u>final</u> Wet Woodland Plan to enable it to be finalised for approval by ESC who would discharge the relevant requirement pursuant to Requirement 14B;
 - approving or amending the actions required for the capital works in the first year of the habitat creation at the relevant sites;
 - on an annual basis, reviewing progress against the success criteria outlined below; and
 - in the event of failure to meet the success criteria, to advise SZC Co. how the contingency measures are then deployed.
 - b) SZC Co / Ecological Contractor
- 6.1.5 SZC Co, or an ecological contractor appointed by SZC Co, will be responsible for delivering the works outlined below at the compensation sites and which will be defined further in the Wet Woodland Plan.
- 6.1.6 As noted above, in the event of a failure to meet the success criteria (see **Section 6**), the Environment Review Group would advise SZC Co. how the



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contingency approach (see **Section 7**) should be taken forward to develop alternative sites.

- c) Site Establishment
- 6.1.76.1.5 The Wet Woodland Plan (in general accordance with this strategy and the Draft Wet Woodland Plan (Doc Ref. 9.108) secured pursuant to Requirement 14B) will define the precise works to be undertaken by SZC Co. within 12 months of commencement of development under the DCO (the 'Year 1 works').
- 6.1.86.1.6 The Year 1 works will include, but not be limited to, the following-works listed below and would will be aligned as relevant with the works required pursuant to the Fen Meadow Plan approved pursuant to Requirement 14A:
 - Any further ecological surveys required² to further inform final design proposals and or protected species mitigation or monitoring requirements—
 - Site acquisition and establishment of any required access or works compound.
 - Any required ground works, such as reworking of ground levels, removal
 of field drains or re-alignment of surface drains or ditches, preparation of
 substrate if required. Natural England consider the following points to be
 fundamental to the success and acceptability of the proposed
 compensation and they will therefore be accounted for in developing the
 Wet Woodland Plan:
 - high quality wet woodland will develop in the same situations as high quality fen meadow (i.e. the absence of elevated nutrients and permanently high water table albeit without cutting or grazing).
 Consequently, many of the same activities are likely to be required including topsoil removal if enriched; and
 - it is noted that the re-establishment of natural hydrological regimes will provide the greatest likelihood of success and resilience in the establishment of wet woodland. Minimal water level controls will aid the restoration of natural flows and are likely to form an important part of the approach.
 - Any required installation of monitoring equipment, such as boreholes or gauge boards.

NOT PROTECTIVELY MARKED

² Noting that ecological surveys have been or are being undertaken in the period 2019-2021 at each site in any event to inform the preposed Draft Wet Woodland Plan (Doc Ref. 9.108)



NOT PROTECTIVELY MARKED

- Establishment of target water levels.
- Installation of fencing / gates as required to define the subsequent management units and in accordance with any land agreements.
- The preferred approach to creating wet woodlands, to be as defined in the Wet Woodland Plan, will be via natural regeneration of woodland in suitable areas by extending adjacent wet woodlands into the chosen sites. Natural regeneration and expansion of wet woodland is likely to be more resilient and have greater biodiversity than a planted woodland. Initially this regeneration would include development of wet scrub and species such as grey willow (Salix cinerea) and alder would are then be expected to colonise once the willows are established. Planting of wet woodland species would will only be undertaken in agreement with the Environment Review Ecology Working Group and only if it is apparent that natural regeneration of wet woodland has not been successful.
- d) Management Years 2-5
- 6.1.96.1.7 The Year 2-5 works, at the relevant sites will include, but not be limited to, the following and would will be aligned as relevant with the works required pursuant to the final Fen Meadow Plan:
 - Monitoring and remedial works to any of the infrastructure installed in year 1 and any ongoing required management actions identified to optimise the water levels and ground conditions for the establishment of the target habitat, aligned as relevant with the Fen Meadow Plan (approved pursuant to Requirement 14A).
 - Habitat monitoring.
 - e) Management Years 6-10
- 6.1.106.1.8 Year 6-10 works at the relevant sites, will include, but not be limited to the following and would will be aligned as relevant with the works required pursuant to the final Fen Meadow Plan:
 - Any ongoing required management actions identified to optimise the water levels and ground conditions for the establishment of the target habitat.
 - Habitat monitoring.



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6.1.11 <u>6.1.</u>		Success at any given site would will be rmined in Year 10 ³ or sooner, as follows, for each site:
	•	Completion of works defined above for Years 1-10.
	•	Establishment of the target water levels, in accordance with the Wet Woodland Plan (approved pursuant to Requirement 14B), aligned as relevant with the Fen Meadow Plan (approved pursuant to Requirement 14A).
	•	Establishment of developing wet woodland habitat, as determined by quadrat survey, at the relevant site.
	•	Establishment of a long-term management plan which will be agree with the Ecology Working Group to maintain the newly established and developing wet woodland habitat for the operational lifetime of the Sizewell C Project. Fen meadow habitats are proposed at each site and the long-term management plan would will therefore be integrated across both target habitat types. The long term management plans will target the establishment of the vegetation establishment and also the establishment of a diverse community of wet woodland invertebrates.
6.1.12 <u>6.1.</u>	are s the spat	These criteria will determine whether habitats successfully establishing at the relevant site, such that in the longer term, establishment of mature wet woodland is considered apparent. The ial extent of establishment will be mapped and the area of developing woodland habitat calculated.
	f)	Management – Year 10 onwards
6.1.13 <u>6.1.</u>	relev	Year 10 and onwards works at each of the vant sites will comprise management in accordance with the long-term agement plan agreed with the Ecology Working Group.

³ Year 10 defined in the s106 agreement as 'the 12 months following the tenth (10th) anniversary of commencement of Work No. 1A in Schedule 1 to the Development Consent Order'



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7 THE TEST OF SUCCESS

- 7.1.1 The critical metric is the establishment, by Year 10, of at least 3.06ha of developing wet woodland⁴ habitat within the onsite wetland corridor (0.7ha) and across the fen meadow sites at Benhall and Pakenham (at least 2.36ha). It is acknowledged in this strategy that trees will not be fully mature by Year 10 and the wet woodland will not be mature by that stage.
- 7.1.2 Provided that 3.06ha of developing wet woodland has been established by Year 10, with the long term management plan <u>agreed with the Ecology Working Group</u> in place to secure this compensatory habitat for the operational lifetime of the Sizewell C Project, then the Wet Woodland Plan <u>(as approved pursuant to Requirement 14B)</u> will have been successful in the context of vegetation establishment.
- 7.1.3 By or before Year 10, the Environment Review Group will relevant information will be submitted to the Ecology Working Group for the Group to determine whether the target quantum of 3.06ha of developing wet woodland has been achieved in accordance with the criteria set out at paragraph 5.1.11 above.
- 7.1.4 If 3.06ha of of developing wet woodland habitat has not been established or is not demonstrably in progress towards this end state, via the process of habitat succession, by this time, the contingency approach detailed in Section 7 will be triggered will be triggered, subject to the decision of the Ecology Working Group to pursue this course of action. The Ecology Working Group has the option to defer this course of action, to enable further progress towards establishment of the wet woodland habitat.
- 7.1.47.1.5 In Year 10, the Environment Review or in a later year, as determined by the Ecology Working Group, the Group will also review and endorse as relevant the long-term management plan for each site where developing wet woodland habitat has been successfully established.
 - 7.1.5 The establishment of a diverse insect assemblage characteristic of wet woodlands, in the newly created wet woodland habitats, will inevitably be a long-term process, extending beyond Year 10. The monitoring approach and success criteria for the establishment of the invertebrate assemblage will be set out in the <u>final</u> Wet Woodland Plan <u>and also included in the long-term management plan</u>.

⁴ Developing wet woodland is here defined as 'wet woodland which meets the definition of W5 within the NVC in respect of tree and shrub components'. Herbaceous species are only likely to achieve frequencies associated with W5 once the trees are more mature and canopy gaps enable colonisation and so are excluded from this definition and the relevant test.



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8 CONTINGENCY APPROACH

- 8.1.1 SZC Co. will provide 3.06 ha of new wet woodland habitats of which it is proposed that 0.7ha of wet woodland will be on site at the EDF Energy estate
 Estate and 2.36ha will be on the two fen meadow locations at Benhall / Pakenham.
- In the event of failure to deliver all or part of the required 2.36 ha across the Benhall and Pakenham sites, SZC Co. wouldwill, from Year 10 onwards and with the agreement of the Environment Review Group Ecology Working Group and subject to the approach set out in Section 7 above, deliver any shortfall to meet the total of 3.06ha on the EDF Energy estate Estate at either Aldhurst Farm or on the new wetlands which would will have been established on the marsh harrier compensatory habitat area in the north-east of the EDF Energy estate Estate.



NOT PROTECTIVELY MARKED

REFERENCES

- Natural Environment and Rural Communities Act. 2006. (Online). Available at: http://www.legislation.gov.uk/ukpga/2006/16/contents (Accessed 1 March 2019).
- 3. Suffolk Biodiversity Partnership. Suffolk Local Biodiversity Action Plan. May 2012. (Online). Available at:

 https://www.suffolkbis.org.uk/sites/default/files/biodiversity/priorityspecieshabitats/actionplans/Planning_BAP_Final%2018%20May%202012.pdf
 (Accessed 7 February 2019).
- 4. National Policy Statements for energy infrastructure: National Policy Statement for Energy (EN-1). Available at:

 https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure (Accessed 12 March 2019)
- 5. National Policy Statement for Nuclear Power Generation (EN-6). July 2011. Available at: https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure (Accessed 12 March 2019).
- 6. Rodwell, J.S. (ed.) 1991. British Plant Communities. Volume 1. Woodlands and scrub. Cambridge University Press. Available at (ISBN 0-521-23558-8)
- 7. JNCC, National Vegetation Classification field guide to woodland. Available at: https://data.jncc.gov.uk/data/673dc337-e58f-4f6b-ac7b-717001983c2e/JNCC-NVC-FieldGuideWoodland-2004.pdf)