# **Appeal Decision**

Hearing Held on 28 September 2021 Site visit made on 16 December 2020

# by L Gibbons BA (Hons) MRTPI

an Inspector appointed by the Secretary of State

Decision date: 5 November 2021

# Appeal Ref: APP/X1545/W/20/3259477 Land to the east of Bradwell Power Station, Bradwell-on-Sea, Essex CMO 7HP

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Bradwell Power Generation Company Limited against the decision of Maldon District Council.
- The application Ref FUL/MAL/20/00157, dated 7 February 2020, was refused by notice dated 20 August 2020.
- The development proposed is an application to carry out ground investigations, load test and associated works in connection with a proposed new Nuclear Power Station at Bradwell-on-Sea together with the creation of two site compound areas and associated parking areas.

#### **Decision**

 The appeal is allowed and planning permission is granted for an application to carry out ground investigations, load test and associated works in connection with a proposed new Nuclear Power Station at Bradwell-on-Sea together with the creation of two site compound areas and associated parking areas at Land to the east of Bradwell Power Station, Bradwell-on-Sea, Essex CM0 7HP, in accordance with the terms of the application, Ref FUL/MAL/20/00157, dated 7 February 2020, subject to the conditions set out in the schedule at the end of this decision.

#### **Application for costs**

2. An application for costs was made by Bradwell Power Generation Company Limited against Maldon District Council. This application is the subject of a separate Decision.

#### **Procedural Matters**

- 3. The appeal site is located to the east and south of Bradwell A Power Station at Bradwell-on Sea. In 2002 Bradwell A ceased power generation although physical decommissioning works have not yet begun. The appeal proposal does not relate to Bradwell A and the site boundary excludes the existing power station building.
- 4. The Nuclear National Policy Statement (NPS EN-6) at Part 4 of Vol 1 indicates potential sites for new nuclear power generation, which includes Bradwell. There was a Nominated Site Area which covered 290 hectares. The appeal site

- covers the boundary of the Nominated Site Area and additional land to the south east totalling 460 hectares.
- 5. Proposals for any nuclear power station would be examined through the process set out in the Planning Act 2008 (the 2008 Act) under a Development Consent Order (DCO). Pre-application consultation on proposals for Bradwell B Power Station took place in 2020 with further consultation planned before an application for the DCO.
- 6. In December 2017 planning permission was granted to carry out preliminary ground investigations and associated works in connection with a potential nuclear power station. The permission covered a site of approximately 217 hectares and was implemented in April 2018.
- 7. The appeal before me deals with ground investigation works and associated works necessary and is additional to the work carried out under the 2017 permission. A Screening Opinion was issued by the Planning Inspectorate in December 2020 which indicates that an Environmental Impact Assessment was not required.
- 8. I note the concerns regarding the designation of the site as potentially suitable for a new nuclear power station in the NPS EN-6 and whether the appeal can be determined through s78 of the Town and Country Planning Act 1990. Under s15 of the 2008 Act the description of developments that fall into the Nationally Significant Infrastructure Projects (NSIP) regime is 'the construction or extension of a generating station of over 50MW capacity (on land)'. Section 115(2) of the 2008 Act provides for 'associated development' which is described as 'development which is associated with the development for which development consent is required'.
- 9. The Planning Act 2008: Guidance on Associated Development Applications for Major Infrastructure Projects (DCLG, 2013) states at paragraph 8 that 'It is for applicants to decide whether to include potential associated development applications in DCO application or whether to apply for consent via another route'.
- 10. The appellant indicates that there is the potential for a large amount of the ground investigations to fall outside the need for planning permission as they would be 'de minimis' and not operational development, and that the Load Test works would be permitted development. Within the context of an appeal under section 78 of the Act it is not within my remit to formally determine whether the development requires planning permission as raised by the appellant.
- 11. In any event, the 2017 application for ground investigation works was submitted and determined via the Town and Country Planning Act 1990. The appellant is entitled to submit a planning application and does not have to proceed via the NSIP regime under the 2008 Act. I shall determine the appeal on that basis.
- 12. The National Planning Policy Framework was published in July 2021 and the main parties were provided with an opportunity to comment on it.
- 13. Having regard to correspondence from the Mersea Island Environmental Alliance (MIEA), comments from Natural England and information provided by the appellant in relation to the potential effects of the proposal on a seahorse species, I held a specific one-day hearing on this topic. This was a change for

the appeal to be dealt with by way of a combined procedure with written representations and a focused hearing as set out in Section 1.5 of the Planning Inspectorate's Procedural Guide Planning Appeals March 2021. No other matters were dealt with at the hearing as I am satisfied that the written representations procedure remained appropriate for the rest of the appeal. The hearing was held after I had conducted the site visit.

# **Background and Main Issues**

- 14. There are a number of groundworks proposed as part of the scheme. Intrusive ground investigation works would comprise of up to 30 rotary/sonic drilled exploratory holes; up to 130 cable percussion boreholes; in-situ testing including strength and permeability testing; up to 60 Cone Penetration Test (CPT) probes and up to 30 trial and observation pits. There would also be load test investigation works involving a 200 metre by 100-metre-wide, 8-10 metres deep open cut excavation; surface and underground measuring instrumentation; and plate load tests. There would be two engineered earth fill embankments and two compounds, one for the ground investigation works and one for the load test works. These would be on existing hard standing and use existing means of access.
- 15. The main issues are the effect of the proposed development on:
  - i) The historic environment including the setting of non-designated heritage assets and disturbance to archaeological assets; and,
  - ii) the ecology of the area including habitats and protected species.

#### Reasons

# Historic environment

Non-designated heritage assets

- 16. The appeal site is located within a flat landscape known as the Bradwell Drained Estuary. The area includes an ancient Saxon Church and a disused military airfield from World War II. The general character of the wider landscape is very rural, very open and the appeal site is generally consistent with this. There are panoramic views from many locations within the site including across the site and out to sea. Sea wall defences, a number of isolated buildings and linear ditches and dykes can be seen in the site.
- 17. There are several non-designated heritage assets within the site boundary mainly associated with the construction of the Bradwell Bay Airfield which opened in 1941 and closed in 1947. These are listed in the Council's List of Local Heritage Assets in Bradwell-on-Sea (June 2020). Originally there were over 300 structures and buildings on the airfield. The buildings on the List are four Blister Hangers, the Control Tower (formerly the Watch Office), the Station Headquarters (HQ) and coastal pillboxes.
- 18. Of the twelve Blister hangers built for the airfield operations only four now survive. The hangers are a very distinctive half barrel shape and have corrugated roofs. They sit low in the landscape but are recognisable and unusual features. They can be viewed either singly or in several locations within the site as a coherent group. Although they are distinctive in appearance, they fit comfortably in their open surroundings and contribute

- positively to their setting. Their significance lies in part in their value as examples of airfield architecture and a reminder of the role that Bradwell Bay Airfield played in World War II.
- 19. The load test area and associated works would be for up to three years to allow for appropriate monitoring and including set up and backfill. The peak periods of activity will take place in the first seven months and in the last 6 months. The load test area would reflect the construction sequence and loading from any proposed power station. The arisings from the excavated pit will be reused to form two earth fill embankments which would simulate backfilling for a nuclear power station. These two embankments would be 6 metres and 8 metres high respectively. Other areas for spoil storage would be located within the boundary of the load test area.
- 20. The excavation area and associated temporary soil mounds would be in very close proximity to two of the hangers located to the east of the load test area. The hangers would be perceived in the context of the embankments and other spoil areas. Their presence in the wider landscape would be reduced with the spoil and embankment areas more prominent, and there would be an increase in the level of activity in the immediate area. Although the other two hangers are located a little further away, the load test area and associated works would still be part of the views towards these hangers. The presence of the embankments and spoil areas would affect the setting of the hangers during the time they would be in place.
- 21. However, these features would be temporary subject to suitable conditions relating to timescales and requiring removal of the works and restoration for the land around the hangers once the works are completed. When the site is restored, the character and setting of the hangars would be preserved in accordance with Policy D3 of the Maldon District Local Development Plan (LDP). The scale of harm would be very limited in terms of the period of time the Load Test area would be in place, and the significance of the hangers would not be affected in the longer term as they would remain intact as reminders of airfield architecture within a restored setting.
- 22. The Control Tower and Station HQ are located within the east of the site and are close to each other. The Control Tower was used to oversee operations on the airfield, and it is now a house with some rebuilding having taken place. It has a more domestic appearance than the other airfield buildings with sheds and stables located within the immediate vicinity. However, its overall original design is still recognisable when compared in photographs that show it in operation.
- 23. To the south of the Control Tower is the Station HQ, which is a long low single storey building with windows and doors. Although it may have been used for other purposes and its roof has been replaced it is still recognisable as a former airfield building. Some hedgerow planting reduces the presence of the Station HQ building in the landscape. The significance of the Control Tower and Station HQ also lies in part in their contribution towards airfield architecture and the role of the airfield.
- 24. A very small number of cable percussion boreholes and CPTs would be located to the east and west of the Station HQ and Control Tower. The cable percussion boreholes would involve a temporary rig and temporary fencing. CPTs are performed from a wheeled or tracked vehicle. It is anticipated that a maximum

- of 30 days would be needed for each form of drilling and is likely to be less than that. The very temporary nature, size and design of the rigs and equipment needed, combined with their location slightly away from both buildings, would not result in harm to the setting or significance of the Station HQ or Control Tower.
- 25. Peartree Cottages which is also included within the Local List was formerly a pair of Georgian cottages built to house workers at the nearby Waymarks Farm. It has been converted into a single residence and is unoccupied. The building retains some original features including a clay roof which includes a 'cat slide' roof to the rear of the house. The significance of the building lies in part in its architectural features and the historical relationship with the flat open and agricultural landscape, and farming. A trial pit is proposed to the south of Peartree Cottages and the compound and other works are not close to the Cottages. Given the distances involved and amount of work proposed close to the cottages, there would be no harm to the setting of this building.
- 26. Although not part of the Local List other non-designated heritage assets related to the airfield are the remaining parts of the runways and perimeter track within appeal site. The features are not complete including the main runway which in parts is narrower than its original form. I note the importance of the remains of the southern part of the perimeter track in linking with the remaining buildings. The runway and track contribute to the setting and openness, and to the overall understanding of the role of the airfield.
- 27. A number of cable percussive holes, CPTs and rotary/sonic drilled exploratory holes would be placed at various locations and times during the investigation works in and around the runways and perimeter tracks. The rotary/sonic rigs are slightly larger than the cable percussive rigs, but these and other rigs and associated works would still be temporary features in the landscape, with no more than 9 of the Rotary/sonic rigs in the landscape at any one time.
- 28. I accept that there would be a small element of removal of the runway and track where the drilling takes place. However, this would be very localised and partial with sufficient remaining that the shape and general form of it would remain visible and very recognisable during and after works are completed. This includes the main runway which has a significant amount of hardstanding remaining. The southern perimeter track would be largely left intact with most of the drilling taking place adjacent to it. Therefore, there would be no harm to their contribution as part of the setting of the airfield or their significance.

# Archaeology

- 29. Policy D3 of the Maldon District Local Development Plan sets out that where development might affect geological deposits, archaeology or standing archaeology, an assessment from an appropriate specialist source should be carried out. This assessment must include consultation of the Historic Environment Record and carried out during an early stage of the planning process to identify the likely impact on known or potential heritage assets and assess their significance.
- 30. The area within the appeal site has the potential for archaeological remains and there are several entries of artifacts and records for different historic periods within the Historic Environment Record. Near surface remains and buried soil

- deposits and land surfaces have been tested by geophysical survey and some trial trenching within the proposed load test area has taken place.
- 31. The Heritage Statement Report (Wood, 2020) which was produced as part of the planning application summarises the archaeological potential of the site. Palaeolithic deposits have previously been found in the area. The more central parts of the site and to the south have low to medium potential in respect of the East Essex Gravels which were laid as part of the Anglian Ice Sheet. The deposits' significance lies in part in contributing to a greater understanding of the Essex Coast and in the past landscape and human activity. There is evidence of Iron Age activity within the site including pottery and the remains of a structure comprising a group of oak posts.
- 32. Any further remains would be potentially Palaeolithic deposits as well as those associated with already known assets including those relating to the human exploitation of the marshes and to the World War II airfield. There may be remains associated with prehistoric and Roman activity including some enclosures extending into the proposed load test area. These would be mainly of local significance in helping to understand the history of the area, and likely to be of a type which is relatively frequent in Essex. There is potential for some remains to be of wider and medium significance but still within the context of the known assets in the area.
- 33. Policy D3 of the LDP does not specifically require in-situ preservation of any deposits or archaeological remains but indicates that any assessment should form the basis for potential mitigation strategies. A Written Scheme of Investigation (WSI) was agreed with the County Council which proposes mitigation for any unknown remains with monitoring and recording. The programme of works can be secured by a suitable condition.
- 34. The WSI would comprise a number of elements. The impacts from the boreholes proposed would be on unknown buried archaeological and geoarchaeological remains. There is the potential for disturbance, but this would be limited given the size and type of drilling, with boreholes being relatively small. Recording of retained and appropriately stored cores from boreholes by a geoarchaeologist would be undertaken. This would contribute to the understanding of the Essex Coast and would help guide any future phases of work. Whilst the impact of trial pits on unknown assets is not certain, a watching brief would mitigate any disturbance which in any event is likely to be small scale and localised given the size of the pits.
- 35. The load test area would result in disturbance to any remains which may be present, with the deeper excavation area leading to a potential loss of deposits or remains. This area would be subject to further archaeological investigation with direct supervision and resources to investigate any remains to the agreed standards in the WSI. Where any significant geoarchaeology deposits would be affected, a watching brief will be undertaken with detailed sampling if significant deposits are identified.
- 36. To my mind the proposed mitigation within the WSI would be appropriate and proportionate given the potential level of significance, and the scheme would therefore be acceptable in terms of the effect on archaeological remains or deposits.

37. The potential for war graves has also been referred to although if any were to be found this would be covered by the WSI and protocols enacted accordingly. The Council and other parties refer to the possibility that the entire project could be abandoned with the potential for the investigative work to be undertaken without mitigation, a potential lack of funding for archaeology and remediation and restoration of land following the works. However, there is no evidence that this would be the case, or that the conditions would not be enforceable. There is also no evidence to suggest that the investigation works should be delayed as part of any future work for the Scoping Report.

# Other heritage assets

- 38. Section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act requires the decision maker, in considering whether to grant planning permission for development which affects a listed building or its setting, to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest.
- 39. There are listed buildings which are excluded from the appeal site but are close to the boundary. There are buildings at East Hall Farm, the significance of which lie in part from their relationship with agriculture in the area. The Chapel of St Peter on the Wall is a Grade I early medieval listed building to the west of the appeal site. It is located close to the shore fort with links to the history of that community and is still in use for worship. The Roman Saxon Shore fort at the Othona settlement was in operation until the mid-4<sup>th</sup> Century with it possibly being used as a monastery following that period. Its significance includes the defence of the coast from Germanic invasions.
- 40. There would be a considerable distance between the load test area and all of the listed buildings, and therefore the scheme would not cause any harm to the setting or significance of these in this respect. One cable percussive rig would be located close to East Hall Farm and the Othona settlement respectively. However, given the very temporary nature of the rigs and size, which would not be prominent, they would not cause harm to the setting or significance of those buildings.

# Conclusions on the historic environment

- 41. The National Planning Policy Framework (the Framework) sets out that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
- 42. The effects on the four blister hangers would be temporary and reversible, and any loss of the track and runway would be relatively minor in comparison to the scale of what would remain. When the scheme is completed with the temporary effects reversed, the overall significance of the assets in relation to the airfield would be maintained. The proposals for mitigation in relation to any archaeological remains and deposits are proportionate considering their potential significance.
- 43. For the reasons given above, I conclude that the proposed scheme would not cause harm to the non-designated heritage assets and archaeological remains

and deposits, or any designated heritage assets. It would not conflict with Policies S1, D1 and D3 of the Maldon District Local Development Plan (LDP) which amongst other things seek development that conserve and enhance the historic environment, and preserve or enhance its special character, appearance or setting and that an assessment of archaeology will provide the basis for potential mitigation strategies. It would accord with the Framework in respect of non-designated heritage assets and archaeological remains.

# Ecology including habitats and protected species

Special Protection Areas and Ramsar sites

- 44. The Conservation of Habitats and Species Regulations 2017 requires that where a plan or project is likely to result in a significant effect on a Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar site, and where the plan or project is not directly connected with or necessary to the management of the site, a competent authority is required to make an Appropriate Assessment of the implications of that plan or project on the integrity of the site in view of its conservation objectives.
- 45. In respect of the Essex Estuaries SAC, which is designated for its habitats, there would be no effect as a result of the proposal. This is due to the location of the proposed groundworks away from the SAC and the lack of impact pathways in relation to pollution and geological and hydrogeological effects. Natural England do not raise any concerns in this respect, and based on the evidence before me I see no reason to disagree.
- 46. However, the appeal site lies near both the Dengie (Mid-Essex Coast Phase 1) SPA/Ramsar and the Blackwater Estuary (Mid Essex Coast Phase 4) SPA/Ramsar sites. Other designations include National Nature Reserves and Sites of Special Scientific Interest. The Blackwater Estuary is also part of the Marine Conservation Zone (MCZ), with the conservation objective of 'recovery' and qualifying features including amongst others, native oyster beds, lagoon sea slugs and the European eel. The Marine and Coastal Access Act (MACAA) 2009 makes provision for furthering the stated conservation objectives and for considering whether an act is capable of affecting (other than insignificantly) the protected features of an MCZ or features on which the MCZ may be dependent.
- 47. The qualifying features underpinning the SPA and Ramsar designations are numerous. The Dengie (Mid-Essex Coast Phase 1) SPA have a significant number of qualifying features which are dark bellied Brent Goose, knot, hen harrier, grey plover and waterfowl assemblage all overwintering. The Dengie (Mid Essex Coast Phase 1) Ramsar criteria also includes assemblages of waterfowl; some of the species relevant to the SPA and a number of others are referred to such as bar-tailed godwits, ringed plover, black-tailed godwits, greenshank; red-throated diver, hen harrier and dunlin.
- 48. The Blackwater Estuary (Mid Essex Coast Phase 4) SPA is also noted for wintering dark bellied brent goose, hen harrier, ringed plover and waterbird assemblage; breeding pochard and tittle tern; and non-breeding grey plover, dunlin and black-tailed godwit. The Blackwater Ramsar (Mid Essex Coast Phase 4) Ramsar criteria at designation are for waterfowl assemblages, some species listed in the SPA features and other species. The Ramsar sites also includes flora and a significant number of other species that are identified for possible

- future consideration under the criteria and also includes noteworthy fauna for breeding, winter peak counts and also invertebrates.
- 49. Due to the nature of the proposal with intrusive groundworks in particular, it is necessary to carry out an Appropriate Assessment to determine the extent of the effects of the proposed scheme on the integrity of the sites, and whether they could be avoided, or whether the mitigation measures could remove or reduce the effects.

# Appropriate Assessment

- 50. The conservation objectives for the Dengie and Blackwater SPAs relate to the individual species and/or assemblages of species for which the sites have been classified and subject to natural change and to ensure that the integrity of the site is maintained or restored as appropriate. It should contribute to the aims of the Wild Birds Directive, by maintaining or restoring habitats and qualifying features and their supporting habitats.
- 51. Whilst there would be no impact pathway associated with water abstraction or water discharge, this would not be the case for potential sources of pollution. The proposed works would have a likely significant effect with the potential for pollution incidents affecting ground and surface water. This would compromise the conservation objectives relating to the extent and distribution of the supporting habitats, their structure and the function and their supporting processes. As the qualifying features rely on these habitats as a source of food there would consequentially be an adverse effect in site integrity.
- 52. However, the proposed mitigation measures relating to good practice in pollution control to prevent the pollution of ground and surface water would prevent events and in turn would protect habitats and species. Prevention and other measures are proposed in the appellant's Contaminated Land Study and a separate Drilling Approach and Aquifer Protection methodology also contains additional detail. These measures would have wider mitigating effects including for local sources of water. Subject to these measures being achieved through a suitably worded condition, this would ensure that there would be no adverse effects on the conservation objectives and an on the integrity of the SPA/Ramsar sites through pollution. It would also not hinder the achievement of the conservation objectives of the MCZ or result in a more than insignificant effect on it.
- 53. There is the potential for a likely significant effect relating to noise from the intrusive groundworks where a number of species use the foreshore and intertidal habitats. The effect relates to the objective for the population of each of the qualifying features and the distribution of the qualifying features within the site using the foreshore and intertidal habitats.
- 54. The Noise Appraisal Report (Wood, February 2020) took a precautionary approach to potential noise levels to the seaward area adjacent to the estuary beyond the Weymarks Borrow Dyke. The results of the Noise Appraisal fed into the Ecological Appraisal (Wood, May 2020). Further assessment and data on species were also provided as part of the Ecological Appraisal Addendum (June 2020).
- 55. To avoid noise impacts on over-wintering birds a phased approach is proposed as part of the mitigation, with a 300-metre buffer zone from the Weymarks

Borrow Dyke preventing works from taking place in October and November. Work in the 300-metre buffer zone would only take place in August and September. The programme would allow for any adjustments to be made for works to fall outside the key overwintering period of October to March. The locations of the intrusive groundworks are also indicative to be able to adjust to environmental and other constraints as necessary.

- 56. Anywhere where there is potential noise disturbance, noise attenuating barriers or other means would be deployed in agreement with ecologists. These measures could be secured by suitably worded conditions relating to the details contained in the Ecological Appraisal and the Ecological Appraisal Addendum and Noise Appraisal report. This would minimise the noise effects on any qualifying features using the foreshore and intertidal habitats.
- 57. There is also the potential for a likely significant effect from the drilling and other works relating to noise and visual disturbance in Functionally Linked Land (FLL) where bird species may use ditches for breeding and also the farmland for feeding.
- 58. In relation to pochard which breed in April to July, works would commence August thereby avoiding the breeding period. Any work which is due to commence in early to mid-July would be outside of the 300 metre Weymarks Borrow Dyke buffer zone. These measures would mitigate effects on the pochard.
- 59. In relation to overwintering birds including the dark bellied Brent geese and other waterbirds such as the lapwing and golden plover using the winter wheat crop and other winter crops within the site, there are measures proposed to avoid noise and visual disturbance to them. For fields sown with preferred foraging crops (winter wheat or cereal) works would be avoided in October and November and works would only take place in August and September. Should high tides result in a wider dispersal of birds, any works would cease that are within a 500-metre buffer of any significant roost location.
- 60. In terms of visual effects, site investigation works would take place during the daytime. Artificial lighting at night would be used at the Load Test area. Subject to a suitable condition, appropriate methods to limit light spill are proposed and lighting outside of working hours between 20.00 and 07.00 would be the minimum to meet security standards or would be task lighting only.
- 61. The Load Test area would have potentially been planted with winter wheat resulting in some loss of FLL. The Load Test Area would be a temporary feature and the use of that area for foraging appears limited. The loss of that land would not be extensive in comparison to the availability of land within the wider site and in any event not all the preferred crops are utilised by the relevant bird species.
- 62. I note that there is the potential for golden plover to use the Load Test area during the night and that crop rotation may alter where birds are to be found. It is suggested that longer periods of bird surveys are required to assess the full impact. However, data provided by the appellant indicates that crop composition is relatively consistent over the years, and in addition that golden plover use a wide variety of food types as well as winter wheat and are also attracted to newly ploughed areas. There are sufficient crops of winter wheat

- and other crops types that may be foraged within the wider area thereby reducing any potential effect on that and other species.
- 63. In combination with the measures proposed in the Ecological Appraisal, Addendum and Noise Appraisal, including the proposed phasing of works, any potential noise and visual disturbance on qualifying and other notable species utilising the FLL would be minimised and there would be no effect on the integrity of the SPA/Ramsar sites.
- 64. In terms of the FLL being formally designated as a habitat, I have had regard to the potential SPA (pSPA) and that these should be given the same protection as habitat sites in accordance with the Framework. However, the area of FLL does not yet meet the definition for a pSPA as there has been no public consultation on the scientific case for designation and therefore the requirements of the Framework would not apply in this respect.
- 65. In terms of any in-combination assessment, from the information before me the offshore ground investigation works would not have any overlap with the timing of the appeal proposals and there would be no impact on the FLL, and in in turn the integrity of the SPA/Ramsar sites. I am not aware of any planning applications or other applications related to the marine environment that would result in an in-combination effect.
- 66. The appellant updated the original Ecological Appraisal with additional data on distribution and abundance of qualifying features and waterbirds. The combination of mitigation proposals took into account the updated data. Natural England do not raise any objection to the proposal subject to the suggested mitigation measures and were satisfied with the additional information provided by the appellant. Appropriately worded conditions would ensure mitigation or avoidance of any adverse effects on the integrity of the SPA/Ramsar sites.

#### Seahorses

- 67. There are two species of seahorse found in UK waters. These are the long snouted seahorse and the short snouted/spiny seahorse. At the hearing it was agreed that the due to the type of habitat preferred by the long snouted seahorse, it was unlikely to be present in the Blackwater Estuary. Therefore, I have considered the effect of the proposal on the short snouted/spiny seahorse.
- 68. Policy N2 of the LDP sets out that any development which could have an adverse effect on sites with designated features, priority habitats and/or protected or priority species, either individually or cumulatively, will require an assessment as required by the relevant legislation or national planning guidance. Where any potential adverse effects to the conservation value or biodiversity value of designated sites are identified the proposal will not normally be permitted. It also states that if any protected species/and or priority habitats/species or significant local wildlife are found on site, or their habitat may be affected by the proposed development, the proposal must make provision to mitigate any negative biodiversity impacts it may create.
- 69. Seahorses are protected under the Wildlife and Countryside Act (WCA) 1981 and are listed as species of principal importance in the Natural Environment and Rural Communities Act (NERCA) 2006. Also listed in the NERCA are

habitats of principle importance. The WCA does not require an assessment to be made and therefore the relevant part of Policy N2 does not apply. Nevertheless, having regard to the general precautionary principle it is necessary to consider whether the short snouted/spiny seahorse is likely to be present either in the ditch and dyke network and the Blackwater Estuary and subsequently any potential effects of the proposal relating to noise and vibration and pollution.

- 70. In respect of whether the short snouted/spiny seahorse is likely to be present within ditch and dyke network within the appeal site, there is evidence from locations elsewhere in the UK they are tolerant of brackish water and have been recorded in these types of locations in Europe. I note that seahorses are also adaptable in terms of the food sources they can use including sources found within ditches and dykes.
- 71. A study¹ of the wider system of borrow dykes in the Essex Estuaries using sampling data from 2001 indicated that some marine species were found although borrow dykes are common features within the area and may not be representative for what is present in the Weymarks Borrow Dyke. The data was also from some years ago. However, the appellant's evidence in relation to water salinity within the Weymarks Borrow Dyke established that conditions could potentially accommodate the short snouted/spiny seahorse although there are varying levels of salinity depending on the weather and water levels.
- 72. There is only one operational outfall relating to the appeal site and there are no other direct links to the sea. The Weymarks Sluice to the north of the site allows water to discharge from the river and dykes into the sea. There is a tidal flap which prevents seawater from entering the sluice by forming a seal caused by pressure from the sea, and the flap is designed to shut if it fails. This is to prevent of flooding of the land from the sea.
- 73. The sluice is maintained by the Environment Agency and there was no detailed evidence to suggest that the sluice was not operational or poorly maintained. Photographs provided by MIEA show the outfall with water coming from the pipe out to sea which suggest it is maintained.
- 74. There is no evidence that the salinity of the water close to the sluice is due to sea water coming in from the pipe. The lack of reeds in the location of the egress from the Weymarks Borrow Dyke does not necessarily show an indication of higher concentrations of salt water due to leakage from the sluice as it but may be due to the maintenance regime which requires intake screens to be clear of blockages and debris. There is also evidence that the outfall pipe is sometimes completely blocked by accumulated sediment for parts of the year, indeed this was the case at the beginning of September 2021. This would make it difficult to access for the species even if the valve was not maintained.
- 75. Even if conditions would enable seahorses to shelter within the ditch and dyke system, with the design and operation of the sluice it is highly unlikely that it would allow the passage of even young seahorses into the Weymarks Borrow Dyke. Therefore, it is not reasonably likely that seahorses will be present in this particular ditch and dyke network.

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<sup>&</sup>lt;sup>1</sup> Site Characterisation of European Marine Sites, Essex Estuaries European Marine Site, Marine Biological Association, 2006

- 76. In respect of the presence of the species in the Blackwater Estuary, records are held by The Seahorse Trust (TST). There have been around 20 recorded sightings of seahorses at Tollesbury Marina, Tollesbury. This is to the north of the appeal site over 3.5km away. There have been 2 recorded sightings approximately 300m from the appeal site in the estuary in 2019. Even though there may be more seahorses present than have been recorded, the records do not necessarily indicate that short snouted/spiny seahorse use the Blackwater Estuary close to the appeal site regularly or permanently as a place of shelter. There are also no records that indicate the seahorses are to be found close to the shore nearer to the appeal site. Nevertheless, in the light of the sightings in the Estuary I have considered potential effects relating to noise and vibration.
- 77. I accept that seahorses are sensitive to negative changes in their environment, and this can disturb them, leading to behavioural changes, or death in certain circumstances. The limited number of studies on responses of seahorses to noise and vibration do indicate stress responses to noise. TST also referred to having directly observed negative responses of seahorses to noise. THT and MIEA do not agree that sound and vibration exposure criteria applied to fish would be an acceptable comparable. I understand that seahorses cannot swim away in the same manner that some fish can and do. Nevertheless, from the evidence before me there are some similarities in the way that seahorses and some fish hear and how certain types of fish respond to sound or vibration. On this basis, in the absence of any formal or other agreed sound and vibration exposure criteria for seahorses at present, it seems to me to be appropriate to use the criteria relating to fish.
- 78. The main source of potential disturbance would be the cable percussion boreholes which would result in both air noise and vibration. In respect of air to water noise, sound travels through air and water at different speeds. From the evidence provided by the appellant, a large proportion of the acoustic energy would be lost when energy transfers from air to water. Even taking account of the worst-case scenario for predicted noise levels and if seahorses are found to be closer to the shore than has been recorded, only a very small fraction of noise from the air would carry into the water. This would be likely to be below the threshold of perceptibility and impacts from air noise would therefore be minimal.
- 79. In relation to vibration transmission through the soil and into the water there is also a loss of energy when moving between these different substrates. The appellant's calculations of Peak Particle Velocity indicate that the results of drilling at the nearest borehole to the shoreline on sound pressure levels would be very low even without the loss of pressure between soil and water.
- 80. Therefore, given these factors, the intrusive groundworks would be unlikely to result in a negative behavioural response from seahorses even if they were present closer to the shoreline.
- 81. In respect of drilling, noise and seahorses, reference was made by TST to the Studland Bay Seahorse Trust Poole Bay permission hearing where a judicial review was granted. I accept that the Secretary of State for Business, Energy and Industrial Strategy consented to judgement and the law changed in December 2020 as a result of the permission hearing. However, this related to the Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects Regulations) 1999. The matters at issue in that instance related to the

- failure to publish and give adequate reasons for notices and additional information for Environmental Impact Assessment. Although this involved the effect on seahorses, the circumstances of that case are different to those before me, and I give it very little weight.
- 82. The Council raise concerns about the potential for silt and sediment deposition within the water network as a result of the scheme. However, this could be dealt with by way of a suitably worded condition relating to an Environmental Management Plan (EMP:Biodiversity). I have considered the concerns of THT and MIEA for the potential for the LTI and other works to lead to high volumes of polluted groundwater pollution being discharged to the ditch and dyke network and through into the sea. These are related to potential contaminants assessed by the appellant and the Environment Agency as part of the Environmental Permit process. I note the comments of Greenpeace Laboratories of Exeter University provided to THT and MIEA on the results of part of that process. Nevertheless, in accordance with the Framework it should be assumed that the permitting regime in this case will operate effectively. The proposed mitigation measures relating to good practice in pollution control would protect habitats and species.
- 83. I understand that MIEA have concerns about surveys such as benthic grab surveys and the licensing process relating to the marine environment. However, the legality of this and also MIEA objections relating to the involvement of Natural England is not a matter for me to determine.
- 84. The submission and implementation of a full Environmental Management Plan (EMP: Biodiversity) would include additional detailed ecological measures and mitigation, including risk assessments and biodiversity protection zones. Natural England raise no objection to the proposal in relation to seahorses. There is no credible evidence that there are risks to the short snouted/spiny seahorse in this particular case, either within the ditch and dyke network of the appeal site or the Blackwater Estuary.

#### Other protected species

- 85. The Bearded tit is found within the site in respect of the Weymarks Borrow Dyke, and it is a qualifying feature for the Dengie SSSI. Measures introduced to protect the pochard would also apply to the bearded tit, in that works would commence in August thereby avoiding the breeding period. Any work which is due to commence in early to mid-July would be outside of the 300 metre Weymarks Borrow Dyke buffer zone. This would minimise the effects of the groundworks on the bearded tit.
- 86. I have been referred to the potential for the Harbour (Common) porpoise to be affected by the proposed groundworks. No drilling works would take place within the SPA and Ramsar sites subject to a suitable condition and this would minimise potential noise or vibration effects on porpoises.
- 87. Water voles are also found within the area. In accordance with the Environmental Management Plan (February 2020), burrows would be identified and accounted for prior to any works commencing. Excavations would be inspected daily. Other measures would be incorporated to rescue any animal which could be potentially trapped.

- 88. There are a variety of habitats within the site, and other species including otters, bats and invertebrates are also to be found within the appeal site. There are a series of control methods set out within the May 2020 Ecological Appraisal including pre-works inspection with an ecologist, watching briefs for all works and other measures.
- 89. A condition relating to the details in the Ecological Appraisals/Addendum produced by the appellant would secure these measures and those contained within the Outline Environmental Management Plan, as would a condition in respect of lighting. In addition to these, mitigation of effects would be secured through the submission and implementation of an EMP: Biodiversity. The drilling and other intrusive works would be limited and localised and there is scope within the site to adjust locations for the works to respond to ecological constraints. Therefore, the effects on species and habitats would be minimised.

Conclusion on ecology including habitats and protected species

90. For the reasons set out above, I conclude that the proposed development would not have an adverse effect on the integrity of the Dengie (Mid-Essex Coast Phase 1) SPA/Ramsar sites and the Blackwater Estuary (Mid Essex Coast Phase 4) SPA/Ramsar sites. It would not cause harm to protected species or the MCZ. It would comply with Policies S1, S8, D1 and N2 of the LDP, which amongst other things seek development that conserves and enhances the natural environment, protects natural resources and ecological value of the countryside and does not permit development where there are any potential adverse effects to the biodiversity value of designated sites. It would not be contrary to the Framework where it relates to conserving and enhancing the natural environment.

#### **Other Matters**

Noise and disturbance to residents

- 91. There is the potential for disturbance to nearby residents through the noise and disturbance created by the intrusive groundworks and drilling processes. Three residential properties are excluded from the appeal site boundary, but it is likely that some of the intrusive works would be located close to these dwellings. These are New Waymarks Farm, Small Cottage and the Control Tower. Other residential properties close by such as Peartree Cottage, Weymarks Farm, East Hall and Othona Community may also be affected.
- 92. The Noise Assessment report takes a worst-case scenario assuming all the rigs are operational at one point in time. It proposes control methods and measures to be implemented and there would also be noise monitoring. Conditions relating to restrictions on the hours of operation and levels of noise would mitigate any exceedances of the thresholds set out in the Noise Assessment. The works would also be time limited. Both the primary school and the Down Hall Residential Care Home are located some distance away from any intrusive works and so would not be affected. For the above reasons, the proposal would not cause harm to the living conditions of residents in respect of noise and disturbance.
- 93. The Chapel of St Peter-on-the-Wall is outside of the area proposed for the intrusive works. The distance between the works and the Chapel would mean

that disturbance from vibration would not occur and would be unlikely to disturb acts of worship.

# Landscape and character

- 94. The appeal site lies within the Bradwell Drained Estuarine Marsh Landscape Character area and consists of flat low-lying mostly arable land with an absence of trees except around farmsteads and buildings. The Landscape and Visual Appraisal Report (Wood, February 2020) indicates that the main effects on the landscape would be from the presence of the Load Test area and the drilling rigs.
- 95. The Load Test area would be prominent particularly in terms of the bunds although these would consist of natural materials. The drilling rigs would also be visible and each one would be in place for at least two weeks. However, works would be programmed to minimise the visual effect particularly in relation to the users of the coastal footpath.
- 96. Some of the drilling rigs would be near the Coastal Path, some dwellings and Eastland Meadows Country Park but this would be for a short period of time and up to a maximum of 30 days. The rigs would be visible, but they would not dominate the landscape given the overall openness of the site. The effects on the landscape and character of the area would therefore be very limited and temporary.

# Agricultural production

97. I note that there is the potential for interruption to the farming business which currently operates on the land within the appeal site. There is no detailed evidence to indicate that the proposed works including the Load Test Investigation area would result in a material loss of agricultural production. Conditions have been suggested to ensure minimal disruption for farming and in respect of intrusive works taking place following harvest of a crop. However, no detail has been provided in terms of the timing and scale of crop production, or where this would be particularly relevant in terms of location that relates to that of the investigative works. I cannot conclude the proposal would be harmful in this respect and therefore imposing a condition in these circumstances a condition would not be reasonable.

# The need for intrusive groundworks and nuclear energy

- 98. I note the concerns relating to whether the appeal scheme and nuclear energy in general is needed. In terms of the wider need the NPS (EN-6) sets out potential sites for new nuclear energy, which includes Bradwell. I accept that EN-6 was published in 2011. However, a Written Ministerial Statement in 2017 indicated that the Government would continue to support proposals for the sites listed in EN-6. The Energy White Paper published in 2020 refers to the current suite of NPS remaining as government policy and that the need for energy infrastructure set out in the energy NPS remains.
- 99. In terms of whether there would be 1 or 2 reactors, the NPS Strategic Siting Assessment was carried out based on a single reactor. I understand that the appellant's current proposals involve two reactors. However, generating capacity is the threshold rather than number of reactors and this would be assessed as part of the DCO process, and therefore is not a matter before me to determine.

- 100. Policy D4 of the LDP indicates that the Council will strongly support the principle of a new nuclear power station at Bradwell and whilst the scheme before me is not for a power station it would be necessary to support any future nuclear power station application. The scheme would follow on from the previous permission granted by the Council which included intrusive works. Whilst the site boundaries between the two planning applications may vary, further understanding of the project includes land which may be needed for construction and landscaping resulting in a greater site area.
- 101. Whilst I note that the previous works were on a smaller scale, the current proposals would further build on the information required for any DCO application to be assessed in detail. The groundworks would therefore be necessary not only to inform the potential environmental effects, but also the design and engineering elements of any DCO.

#### **Conditions and conclusion**

#### **Conditions**

- 102. The Council have suggested conditions. I have considered these and amended them as necessary in the light of the national Planning Practice Guidance. It is necessary to specify the approved plans as this provides certainty. Conditions are necessary to specify the maximum numbers of intrusive ground investigations and the details of the intrusive works within the Load Test Area including the maximum number of earth fill embankments. I have removed the element of the suggested conditions which would have allowed the appellant to submit details of any further intrusive works as this would have the potential to expand the scheme beyond the ability to mitigate any negative effects.
- 103. Whilst the appellant and Council have agreed a condition that sets out that no additional ground investigations could take place without the approval of the Council, I have not attached this, as any additional investigation would conflict with conditions 3 and 4 and could have unassessed negative effects.
- 104. Conditions are required to ensure the temporary nature of the ground investigations and load testing works with a maximum of two years for the ground investigation compound and three years for the Load Test area. To ensure that restoration of the Load Test Investigation Area and the two compounds, including removal of temporary structures, is completed within certain timescales conditions are also necessary.
- 105. In the interests of the character and appearance of the area it is necessary to limit the height of the temporary structures within the Load Test area compound, and that the works are carried out in accordance with the details and recommendations in the Landscape and Visual Appraisal (Wood, February 2020).
- 106. To protect the living conditions of the neighbouring residents it is necessary to impose conditions that limit the hours of the development and investigations and the noise levels of site investigation works. A condition is also attached relating to the details and mitigation contained within the Noise Appraisal. A condition is also required to ensure traffic management measures are implemented as set out in the Planning Statement (February 2020), this is necessary in the interest of highway safety.

- 107. To protect the ecology of the area several conditions are required. A condition relating to lighting to be in accordance with the details submitted within the Ecological Appraisal addendum is necessary. A condition is needed to ensure that all mitigation and enhancement measures and works should be carried out in accordance with the details contained in the Ecological Appraisal Report Rev P04 (Wood, May 2020), the GI Site Investigations Ecological Appraisal Addendum (June 2020), and the Outline Environmental Management Plan (BrB Feb 2020). Notwithstanding the details within the Outline Environmental Management Plan, in order to avoid impacts on seahorses and other species, a condition is needed to require the submission of a full Environmental Management Plan (EMP: Biodiversity) prior to the commencement of development. I have amended the condition to refer to ground investigation works.
- 108. The Statement of Common Ground in respect of seahorses (dated 21 September 2021) between the Council and appellant indicated that an additional condition relating to a Biodiversity Enhancement Strategy was not necessary or relevant to the proposed development and given the temporary nature of the scheme, I see no reason to disagree with this.
- 109. Conditions are also required in respect of the 300-metre buffer for the Weymarks Borrow Dyke and the phasing of investigative works to avoid key periods in relation to protected species. It is also necessary to ensure that no works take place within the SPA/Ramsar sites. The condition relating to the details and mitigation contained within the Noise Appraisal is necessary as it would also apply to mitigating impacts on ecology.
- 110. To minimise pollution and ensure that aquifers are protected during the works, it is necessary to attach a condition that the works are carried out in accordance with the details set out in the Drilling and Aquifer Protection methodology. I have added the Contaminated Land Study to this condition as there are also recommendations for mitigation within that document. It is also necessary to attach a condition relating to contamination in the event that any is found during the course of the works. A condition is needed to ensure that spoil and topsoil are stored outside Flood Zones 2 and 3 in order to prevent issues relating to flood risk.
- 111. To protect the archaeology of the area it is necessary to attach a condition to ensure the development is carried out in accordance with the WSI.

# Conclusion

112. The Framework confirms that decisions must be taken in accordance with the development plan unless material considerations indicate otherwise. I have found that the proposal would accord with the relevant provisions of development plan for the area, and it would also accord with the Framework when read as a whole. For the reasons set out above I conclude that the appeal should be allowed.

L Gibbons

**INSPECTOR** 

#### **APPEARANCES**

FOR THE APPELLANT

S Price DWD R Clutten Counsel G Bishop Wood N Burke **GCN** R Horsfield Wood J Rampley-Clarke Wood J Wilson Wood J Wilson Wood

#### FOR THE LOCAL PLANNING AUTHORITY

A Taylor Maldon District Council

#### MERSEA ISLAND ENVIRONMENTAL ALLIANCE

G Farley

N Byrd Counsel

THE SEAHORSE TRUST N Garrick-Maidment FBNA

NATURAL ENGLAND

J Bustard

D Harrison

Dr H Selley

#### DOCUMENTS SUBMITTED AT THE HEARING

- 1 Written submissions on behalf of MIEA
- 2 Site Characterisation of European Marine Sites, Essex Estuaries European Marine Site, Marine Biological Association, 2006 (MIEA)
- 3 Four photographs of Weymarks Sluice (MIEA)

#### DOCUMENTS SUBMITTED AFTER THE HEARING

- 4 Written submissions on behalf of the appellant
- 5 Transcript of permission hearing and Consent Order (Poole Bay) (MIEA)
- 6 Appellant's written submissions on the Poole Bay Judicial Review
- 7 Bundle of documents relating to the Environmental Permit (MIEA)

#### **SCHEDULE OF CONDITIONS**

- 1) The development hereby permitted shall begin not later than 3 years from the date of this decision.
- The development hereby permitted shall be carried out in accordance with the following approved plans: 412657-MMD-00-XX-DR-C-0001, 412657-MMD-00-XX-DR-C-0002; 412657-MMD-00-XX-DR-C-0003 Rev P3; 412657-MMD-00-XX-DR-C-0004; 412657-MMD-00-XX-DR-CIV-0005, 412657-MMD-00-XX-DR-CIV-0007; 412657-MMD-00-XX-DR-CIV-0008; 412657-MMD-00-XX-DR-CIV-0009.
- 3) The intrusive ground investigations shall not exceed the following type of intrusive works:
  - Up to 30 rotary/sonic drilled (cored) exploratory holes
  - Up to 130 cable percussion boreholes

Associated in-situ testing including strength and permeability testing;

- Up to 60 Cone Penetration Test (CPT) probes.
- Up to 30 trial pits and observation pits.
- 4) The Load Test investigation shall not exceed the following type of intrusive works:
  - A 200 metres by 100 metres wide, 8-10 metres deep (approximate) open cut excavation.
  - Surface and underground measuring instrumentation, with approximately 40 vertical holes formed.
  - Two 4 metre diameter and one 7 metre diameter plate load tests at the bottom of the excavation.
  - No more than 2 engineered and instrumented earth fill embankments.
- The ground investigation works hereby permitted shall cease no later than two years from the commencement of the ground investigation work and the load testing works hereby permitted shall cease no later than three years from the commencement of the load test investigation.
- Within five years from the date of the planning permission, if permission has not been granted for a new nuclear power station on the site, the approved Load Test Investigation and ground investigation compounds shall be removed, and the ground levelled to return to its condition and appearance prior to the work.
- 7) No element of the temporary structures in the proposed Load Test Investigation compound hereby permitted shall exceed 10 metres in height.
- 8) The temporary structures within the ground investigation site compound area shall be completely removed within 2 months from the completion of the proposed intrusive ground investigation works or within the two years from the commencement of the development hereby permitted. The temporary structures within the Load Test Site Compound area shall be completely removed within 2 months from the completion of the Load Testing works or within three years from the commencement of development hereby permitted.

- 9) No development or intrusive ground investigations shall take place outside of the hours between 07:00 and 20:00 Mondays to Fridays and alternate weekends (Saturdays and Sundays) and no development or intrusive ground investigations shall take place on Bank Holidays.
- 10) At the boundary of the nearest noise sensitive premises levels of noise from the site investigation works shall not exceed:
  - 65 dB LAeq, 1hour between 07:00 to 19:00 hours Monday to Friday and 07:00 to 13:00 hours on Saturdays
  - 55 db LAeq, 1hour between 19:00 to 20:00 hours Monday to Friday
  - 55db LAeq, 1hour between 13:00 to 20:00 hours on Saturdays, and 07:00 to 20:00 on Sundays
- 11) Lighting should be in accordance with the details submitted within the Ecological Appraisal Addendum (Wood June 2020).
  - With the exception of the PIR (Passive Infra-Red sensor) lighting and suitable shrouded task lighting to the Site Compounds, no other means of external illumination of the site shall be installed unless otherwise agreed in writing with the Local Planning Authority.
- 12) The development shall be carried out in accordance with the methodology described in the submitted 'BRB Phase 2 Ground Investigation: Drilling Approach and Aquifer Protection' and the details submitted within Phase 1 Contaminated Land Desk Study Report (Wood, February 2020).
- Any contamination that is found during the course of the development and intrusive investigation works that was not previously found to be present at the site, then no further development or intrusive investigation works shall be carried out until a remediation strategy has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall detail how the unsuspected contamination will be dealt with. The remediation strategy shall be carried out in accordance with the approved details.
- 14) All spoil and topsoil storage within the Load Test Investigation Site shall be sited out of Flood Zones 2 and 3 as shown on Drawing 412657-MMD-00-XX-DR-CIV-0007.
- 15) The development hereby permitted shall be carried out in accordance with the submitted Technical Note: Historic Environment Archaeological Written Scheme of Investigation for Evaluation and Mitigation work at Bradwell B (March 2020).
- 16) The development hereby permitted shall be carried out in accordance with the detail and mitigation included within the Landscape Visual Appraisal Report (Wood, February 2020).
- 17) All mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the Ecological Appraisal Report Rev P04 (Wood, May 2020), the GI Site Investigations Ecological Appraisal Addendum (June 2020), and the Outline Environmental Management Plan (BrB Feb 2020) amended to include additional precautionary measures for water voles.
- 18) Prior to the commencement of development an environmental management plan (EMP: Biodiversity) shall be submitted to and approved

in writing by the local planning authority. The EMP (Biodiversity) shall include the following.

- a) Risk assessment of potentially damaging construction and ground investigation activities.
- b) Identification of "biodiversity protection zones" including the Weymarks Borrow Dyke and ditch network.
- c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts (may be provided as a set of method statements) to be informed by up-to-date species-specific surveys e.g. for water voles, otters and birds (as relevant and appropriate).
- d) The location and timing of sensitive works to avoid harm to biodiversity features.
- e) The times during construction and ground investigation works when specialist ecologists need to be present on site to oversee works.
- f) Responsible persons and lines of communication.
- g) The role and responsibilities on site of an ecological clerk of works or similarly competent person.
- h) Use of protective fences, exclusion barriers and warning signs.
- i) Containment, control and removal of any invasive non-native species present on site

The approved EMP shall be adhered to and implemented throughout the construction and the ground investigation period strictly in accordance with the approved details.

- 19) No ground investigation works shall take place within a 300-metre buffer zone around the Weymarks Borrow Dyke between April to July inclusive or October and November to take account of key periods of sensitivity for breeding pochard, bearded tit and overwinter bird species and will avoid fields sown with the preferred foraging crop (winter wheat or cereal) during this period.
- 20) No works should be undertaken within the boundary of the Dengie and Blackwater Special Protection Area (SPA); Special Areas of Conservation (SAC); Ramsar sites; and Sites of Special Scientific Interest (SSSI) at any time.
- 21) The development hereby permitted shall be carried out in accordance with the detail and mitigation included within the Noise Appraisal Report (Wood, February 2020).
- 22) The development hereby permitted shall be carried out in accordance with the detail contained within the Planning Statement (BrB, February 2020) relating to the site access and traffic management within the site. This includes detail relating to:
  - Storage of plant and materials used during the development.
  - The erection of security hoarding.
  - Wheel washing facilities.

- Measures to control the emission of dust and dirt during construction and the development.
- A scheme for recycling/disposing of waste resulting from the development.