

A14
Cambridge to Huntingdon
improvement scheme
Development Consent Order Application

HE/A14/EX/81

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Response to ExA's Second Written Questions:
Principal Issue 2 Biodiversity and Ecological Conservation

August 2015

The Infrastructure Planning (Examination Procedure) Rules 2010

A14 Cambridge to Huntingdon improvement scheme

Development Consent Order Application
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Contents

2 Biodiversity and Ecological Conservation	5
Question 2.2.1.....	5
Response.....	5
Question 2.2.2.....	7
Response.....	7
Question 2.2.3.....	8
Response.....	8
Question 2.2.4.....	9
Response.....	9
Question 2.2.5.....	11
Response.....	11
Question 2.2.6.....	13
Response.....	13
Question 2.2.7.....	14
Response.....	14
Question 2.2.8.....	16
Response.....	16
Question 2.2.9.....	17
Response.....	17
Question 2.2.10.....	18
Response.....	18
Question 2.2.11.....	20
Response.....	20
Question 2.2.12.....	21
Response.....	21
Question 2.2.13.....	22
Response.....	22
Question 2.2.14.....	23
Response.....	23
Question 2.2.15.....	25
Response.....	25
Question 2.2.16.....	27
Response.....	27
Question 2.2.17.....	28

Response.....	28
Question 2.2.18.....	29
Response.....	29
Question 2.2.20.....	34
Response.....	34
Question 2.2.21.....	35
Response.....	35
Question 2.2.22.....	36
Response.....	36
Question 2.2.23.....	37
Response.....	37
Question 2.2.24.....	38
Response.....	38
Question 2.2.25.....	44
Response.....	44
Question 2.2.26.....	46
Response.....	46
Appendix 2.1	49

Tables

Table 2.1: Species listed for Ouse Washes SPA	40
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2 Biodiversity and Ecological Conservation

Question 2.2.1

CoCP 12.1.5 (APP-752) requires main contractors to consult NE/EA amongst others about implementation, management and monitoring of mitigation. What is the process by which main contractors would address consultation responses? (Ref Q1.2.3 REP2-003)

Response

1. In accordance with the Code of Construction Practice (CoCP) (Applicant reference HE/A14/EX/64, PINS reference REP4-026), the Environment Agency and Natural England (amongst others) would be consulted informally during the development of detailed mitigation designs and method statements in order to avoid protracted discussions prior to and during implementation of the proposals.
2. Once finalised method statements and mitigation design proposals are prepared they would be issued to Natural England and/or the Environment Agency and any specified other body (as appropriate) for a formal response. As a consequence of informal consultation during development of the statements and proposals, it is anticipated that formal comment would be a straightforward process. Any need for further amendment would be addressed and points of discussion would be noted and held with the final version of the relevant document.
3. The process by which consultation responses would be addressed for relevant consultees would comprise:
 - confirmation of receipt, together with confirmation of the timeline for responding, and formal logging of response;
 - allocation of response to an appropriate owner within the contractor's team;
 - action by that owner, who would review the response in detail seeking input from all necessary parties;
 - drafting of a response to the stakeholder confirming any actions as appropriate, review by contractor and Highways England;
 - issue of response to stakeholder; and
 - progression of all confirmed actions in accordance with issued response.

4. Monthly environmental stakeholder liaison forums, which would include attendance from the Environment Agency, Natural England and, if appropriate, local representation from wildlife trusts, would be set up to track and discuss progress and upcoming environmental issues throughout the duration of the scheme. Whilst all main contractors have yet to be appointed, it is intended that forums would be co-ordinated wherever appropriate across the scheme, bringing all main contractors together with key stakeholders, so as to avoid confusion and ensure efficient use of people's time.
5. In accordance with good practice, all meetings would be minuted and an actions log maintained by each main contractor. Actions would be reviewed regularly to ensure progress in accordance with discussions held at meetings.
6. Memoranda of Understanding (MoUs) are in place between the Environment Agency and Highways England and between Natural England and Highways England. The primary aim of these MoUs is to facilitate working relationships between the relevant parties by promoting co-operation and communication, therefore contributing to the protection and enhancement of the natural environment. On behalf of Highways England, main contractors would uphold the principles of these MoUs throughout the pre-construction and construction phases of the A14 scheme.

Question 2.2.2

Protective provisions within the DCO would provide EA with a general plan approval role. Can the applicant provide draft heads of terms if the draft protective provisions are not available at Deadline 7? (Ref Q1.2.3 REP2-003)

Response

7. Highways England and the Environment Agency are continuing discussions as to the protective provisions to be included in the Development Consent Order (DCO).
8. To assist the Examining Authority a draft of the protective provisions is provided at Appendix 2.1 (which includes the plan approval mechanics), together with latest drafts of the protective provisions for the benefit of the following bodies, as promised at the Issue Specific Hearing on the DCO held on 15 July 2015:
 - Cambridgeshire County Council and the Internal Drainage Boards;
 - Network Rail; and
 - National Grid.
9. As with the Environment Agency, discussions with all these bodies are on-going and the form of these protective provisions may change as a result (although Highways England anticipates the principles will remain broadly unchanged). For example, Highways England has recently received comments from National Grid which are currently being considered. Highways England is confident that the protective provisions will be agreed shortly.
10. Highways England can also confirm that it is entering into discussions with Anglian Water as to whether a standalone form of protective provisions is required to protect its interests, or whether the current form of protective provisions for the benefit of water and sewerage undertakers (in Part 1 of Schedule 8 to the latest draft of the DCO (Applicant reference HE/A14/EX/96)) is sufficient.

Question 2.2.3

What is the status of discussions between HE and NE regarding an additional Requirement for securing the detailed design of ecological mitigation, such as the badger and water vole receptor sites to be included in the DCO? (Ref Q1.2.4 REP2-003)

Response

11. Highways England included at Deadline 4 new wording in the requirement at paragraph 5(2) of Part 1 of Schedule 2 to the *Draft Development Consent Order* (Applicant reference HE/A14/EX/59, PINS reference REP4-021), stating that the design of protection and mitigation measures needs to be included as part of the details to be approved by the Secretary of State in consultation with Natural England.
12. By a letter dated 13 July 2015, Natural England informed Highways England that it welcomed these amendments, but requested the insertion of wording committing Highways England to provide details of the management of the protection and mitigation measures. Highways England is content with this proposed amendment, and this is reflected in the latest draft of the *Development Consent Order* (Applicant reference HE/A14/EX/96) submitted at Deadline 7.
13. Agreement on this point is recorded in the revised *Statement of Common Ground between Highways England and Natural England*, which has been submitted at Deadline 7 (Applicant reference HE/A14/EX/98).

Question 2.2.4

An ecological mitigation area adjacent to the Brampton Meadows SSSI is proposed to be secured through a new Requirement, for which NE approval would be sought. An update to the CoCP sets out a responsibility for the contractor to prepare a Handover Environmental Management Plan to secure management responsibilities for the habitat into the operational lifetime of the scheme. What engagement with NE beyond the design stage is required and what progress has been made in discussions? (Ref Q1.2.7 REP2-003).

Response

14. At the end of the design stage (which would take place following the grant of the DCO, if the application is granted), a habitat creation specification and long term management plan in respect of the ecological mitigation areas would have been agreed with Natural England. This is secured under a new requirement contained in the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96). The precise wording of the new Requirement has been the result of on-going consultation with Natural England since Highways England's response to first written question 1.2.7.
15. Natural England would continue to be consulted during the implementation of the habitat creation under the management details approved under the new Requirement. After the initial habitat creation works, Natural England would be issued with progress reports until a stable management regime is established. Progress reports would be issued by Highways England's main contractors at least annually until the end of the maintenance period, during which the contractor is responsible for maintenance post-construction, before handover to Highways England. Progress reports would be issued more often than annually if necessary through agreement with Natural England. Progress and/or site meetings would be held with Natural England through agreement on an 'as necessary' basis.
16. At the end of the maintenance period, the long term management plan would be updated if necessary in consultation with Natural England and incorporated into the Handover Environmental Management Plan (HEMP). The requirement for an update would be included in the management details approved under the new Requirement. The provision of the HEMP is secured under the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-027). The CoCP itself is secured under paragraph 4 of Part 1 of Schedule 2 to the draft DCO.

17. From approximately January 2024 (the precise date depending on the date of completion of construction), Highways England would assume management responsibility and would deliver the requirements of the HEMP, including any further progress reports required prior to agreement that a stable management regime has been established.
18. This approach was discussed with Natural England during a telephone meeting on 3 August 2015. Natural England expressed agreement with the approach.

Question 2.2.5

With reference to the proposed ecological mitigation area adjacent to the Brampton Meadows SSSI, the applicant states in their response to Q1.2.7 that this area would be '...acquired permanently by Highways England and managed in perpetuity either through the Highways England Estate or through sale to, or management agreement with, another suitable body'. How would this be secured, particularly if the area is sold on?

Response

19. As is stated in Highways England's response to question 1.2.7, paragraph 87 of *Response to the ExA's First Written Questions Report 2: Biodiversity and Ecological Mitigation* (Applicant reference HE/A14/EX/29, PINS reference REP2-003), the ecological mitigation measures which are proposed to be established at the site of the Brampton Meadows SSSI would need to be maintained and managed in perpetuity. It is envisaged that these mitigation measures would be achieved through Highways England's acquisition of the relevant land and subsequent management of it as part of the Highways England Estate, or through a management agreement with, or the onward transfer to, another suitable body.
20. If the land were to be managed as part of the Highways England Estate, such management would be undertaken in accordance with the details of the management of this mitigation area. Such details would be required to be approved by the Secretary of State after consultation with Natural England under the new requirement in paragraph 13 of Part 1 of Schedule 2 of the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96).
21. If the maintenance of the area was dealt with through a management agreement, the terms of that agreement would provide the terms and conditions by reference to which the land was required to be maintained by the management company. Such terms and conditions would necessarily cross-refer to and incorporate the requirements of the management arrangements approved under the new requirement referred to above.

22. If the land was sold on to a third party, such onward sale would follow the prior acquisition of the land by Highways England pursuant to article 20 of the DCO and would be subject to the imposition of restrictive covenants by Highways England as landowner (subject to development consent being granted and the DCO being made by the Secretary of State). Restrictive covenants would therefore form part of the land transfer, and would require the area to be maintained in perpetuity in accordance with the management arrangements approved under the requirement at paragraph 13 of Part 1 of Schedule 2 to the draft DCO. A commitment to imposing such restrictive covenants would form part of the management details agreed with Natural England under this requirement.

Question 2.2.6

The need for an agreement (in the form of a draft method statement) between NE and HE regarding the protection of breeding birds has been identified in HE's answer to Q1.2.9 (REP2-003) and in the SoCG. What progress has been made towards preparing, agreeing and securing this draft method statement?

Response

23. A draft breeding bird method statement was sent to Natural England on 10 July 2015.
24. Progress on agreement of the method statement was discussed with Natural England during a telephone meeting on 3 August 2015.
25. Natural England has since confirmed by email that they are satisfied with the method statement. Agreement on the method statement will be documented in the Statement of Common Ground between Highways England and Natural England and will be secured via the revised CoCP, both to be submitted at Deadline 8.

Question 2.2.7

The detailed specification for the provision of bird nesting boxes and towers is proposed to be subject to consultation with NE, the Wildlife Trust and the Barn Owl Trust (Ref Q1.2.9 REP2-003) and approval should be sought from these bodies. How would this be secured in the DCO? What discussions have taken place with NE, the Wildlife Trust and the Barn Owl Trust?

Response

26. Consultation on the draft Local Environment Management Plans (LEMPs) with local wildlife trusts (amongst others) and Natural England is a requirement of paragraph 12.1.5 of the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026). For the purposes of the bird nesting boxes and towers both the Wildlife Trust and Barn Owl Trust would constitute local wildlife trusts.
27. The specification for the provision of bird nesting boxes and towers would be incorporated into the management plans for breeding birds and barn owl, which are requirements in paragraph 12.1.1 of the CoCP. The management plans would be appended to the LEMPs. It is acknowledged that the current draft of the CoCP is ambiguous as to the relationship between the management plans and the LEMP. An amended CoCP will be submitted for Deadline 8 (2 September 2015) to clarify that the management plans would be appended to the LEMPs.
28. Obligations contained in the CoCP are secured by paragraph 4 of Part 1 of Schedule 2 to the latest revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96).
29. As breeding birds are protected species, the provision (and details) of bird nesting boxes and towers, as 'mitigation measures' for effects on them, would also be secured through the requirement contained at paragraph 5(2) of Part 1 of Schedule 2 to the revised draft DCO.
30. During the consultation on the LEMPs and appended breeding bird and barn owl management plans, Highways England would seek to obtain comments from Natural England and the Wildlife Trusts prior to finalisation of the LEMPs and appendices. The response to question 2.2.1 outlines the process by which the main contractors would address consultation responses.
31. It is not considered appropriate for the Wildlife Trust and Barn Owl Trust to have an approval role in respect of the design details in any requirement. Highways England considers the most appropriate mechanism is for the Secretary of State to discharge the requirements, following relevant consultation (in this case, with Natural England).

32. The process for securing provision of bird nesting boxes and towers was discussed with Natural England during a telephone meeting on 3 August 2015. Natural England expressed agreement that this is a matter for detailed design and is content that the wording of the requirements mentioned above can be agreed within the examination.
33. Consultations with the Wildlife Trust or the Barn Owl Trust have not yet taken place as this is a matter for detailed design following the making of the DCO (if the application is granted).

Question 2.2.8

How would pre-construction surveys for barn owl, bats, water vole, otters, GCN, badger, breeding birds and WCC be secured through the DCO? (Ref Q1.2.6 and Q1.2.9 REP2-003)?

Response

34. Barn owl, bats, water vole, otters, great crested newt, badger, breeding birds and white clawed crayfish are all nationally (and in some cases European) protected species. Pre-construction surveys would therefore be secured through the requirement contained in paragraph 5(1) of Part 1 of Schedule 2 to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96). This requirement states that no development can be commenced until final pre-construction survey work has been carried out, together with relevant obligations in the CoCP (see paragraph 12.1.7) (Applicant reference HE/A14/EX/64, PINS reference REP4-026), which itself is secured by a requirement in the draft DCO.

Question 2.2.9

CoCP 12.1.5 (APP-752) indicates that the main contractors will consult with the LAs, NE, EA and the local wildlife trusts regarding the preparation of the ecological aspects of the relevant LEMPs and approval should be sought from these bodies. How would this be secured in the DCO?

Response

35. The requirement contained in paragraph 4 of Part 1 of Schedule 2 to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96) states “*The authorised development must be carried out in accordance with the provisions of the code of construction practice*”.
36. The obligations in paragraph 12.1.5 of the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026) are thus secured in the DCO by this requirement.
37. As part of the consultation specified at paragraph 12.1.5 of the CoCP, Highways England would consult with relevant consultees prior to finalising the Local Environment Management Plans. The response to written question 2.2.1 outlines the process by which the main contractors would address consultation responses.
38. It is not considered appropriate for the consultees to have an approval role in respect of matters secured by requirements. Highways England considers the most appropriate mechanism is for the Secretary of State to discharge the requirements in consultation with relevant specified consultees. This approach has been agreed with, for instance, Natural England.

Question 2.2.10

HE confirm in their SoCG with NE that they are proposing a new DCO requirement to secure 'the detailed design of ecological mitigation'.

- a) What progress has been made towards drafting a suitably worded DCO Requirement, in consultation with NE?**
- b) Can the applicant confirm that this Requirement will specifically secure (among other matters) the detailed design of the badger, water vole and GCN receptor sites, lighting, the Brampton Meadow SSSI mitigation area and the wildlife tunnels / culverts?**
- c) Would the Requirement include a mechanism for the relevant planning authority to approve the design details, in consultation with NE?**
- d) When would detailed design information be available? (SoCG NE/HE)?**

Response

39. In response to the four specific parts of the question:

- a) The wording for the new requirement is now agreed and is reflected in the latest draft of the DCO (Applicant reference HE/A14/EX/96). Please see Highways England's response to written question 2.2.3 which also deals with some of the issues raised.

The requirement contained in paragraph 5(2) of Part 1 of Schedule 2 to the draft DCO requires that for European or nationally protected species the detailed design of protection and mitigation measures would be submitted to and approved by the Secretary of State after consultation with Natural England.

- b) For all matters listed at part b, the requirement at paragraph 5(2) of Part 1 of Schedule 2 of the revised draft DCO would apply (together with the relevant licences, where appropriate) with the exception of the Brampton Meadow SSSI mitigation area.

In relation to the Brampton Meadow SSSI mitigation area, Natural England has requested that a new requirement dealing specifically with this matter be incorporated in the DCO. Highways England is amenable to this request and has incorporated a new requirement at paragraph 13 of Part 1 of Schedule 2 to the latest draft of the DCO submitted at Deadline 7.

c) It is not considered appropriate for the relevant planning authority to approve the details referred to in any requirement. Highways England considers the most appropriate mechanism is for the Secretary of State to discharge the requirements, on advice from Highways England following relevant consultation (in this case, with Natural England). Natural England has agreed to this approach. Please see Highways England's submissions on this broader point elsewhere, such as in its *Comments on the DCO Hearing* (Applicant reference HE/A14/EX/66; PINS reference REP5-028)

d) Detailed design would be carried out following the making of the DCO (if the application is granted). Discussions will be on-going with Natural England throughout this process.

Question 2.2.11

HE has indicated that it will continue to consult with NE throughout the pre-construction, construction and post-construction period to ensure that all EPS issues are fully resolved (Q1.2.10 REP2-003). Approval from NE would be sought on these issues. How would this be secured in the DCO?

Response

40. Consultation during the detailed design period, after the making of the DCO (if the application is granted), would continue through pre-construction and construction stages on a scheme of protection and mitigation measures (including their design) for protected species. This would be secured through the requirement contained in paragraph 5(2) of Part 1 of Schedule 2 to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96).
41. Prior to submitting any details for approval under the requirement, Highways England would seek to gain comments from Natural England prior to submission to the Secretary of State for written approval.
42. It is not considered appropriate for Natural England to have an approval role in respect of the details in any requirement. Highways England considers the most appropriate mechanism is for the Secretary of State to discharge the requirements, following relevant consultation (in this case, with Natural England). Natural England approves of this approach.
43. During and after licensed works (i.e. in the construction and post-construction stages) it would be a requirement of the licences to consult with and report to Natural England. Works in accordance with licences is secured through the requirement contained in paragraph 5(3) of Part 1 of Schedule 1 to the draft DCO and by the general law relating to licences.

Question 2.2.12

Fig 2.2 (REP2-003) shows Species and Habitat Management Plans as separate from LEMPs and CEMPs. What is the relationship between these different plans?

Response

44. The relationship between the CEMP and LEMPs is set out in Chapter 20 of the *Environmental Statement (ES)* (Applicant reference 6.1, PINS reference APP-351). In summary, the CEMP would identify the process that the contractor would follow to ensure the requirements of the CoCP and LEMP would be met, which would include preparation of the Species and Habitat Management Plans.
45. As stated in paragraph 139 of Highways England's *Response to ExA's First Written Questions: Report 2 Biodiversity and Ecological Conservation* (Applicant reference HE/A14/EX/29, PINS reference REP2-003), the Species and Habitat Management Plans would be appended to the LEMPs under the provisions of the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026). It is acknowledged that the current draft of the CoCP is ambiguous as to the relationship between the Species and Habitat Management Plans and the LEMP. An amended CoCP will be submitted for Deadline 8 (2 September 2015), which will clarify that the Species and Habitat Management Plans would be appended to the LEMPs.
46. In Figure 2.2 of Highways England's response to written question 1.2.14 the management plans and LEMPs are shown separately because their relevant scales are different. The Species and Habitat Management Plans would be at a scheme-wide scale as their purpose would be to ensure a comprehensive and coordinated approach to delivery of all ecological mitigation for the species or habitat concerned across the whole scheme. However, the LEMPs would be at a local authority scale to ensure a comprehensive and coordinated approach to delivery of all ecological mitigation in the local area. As appendices to the LEMPs the management plans would provide the detail of measures within the geographical scope of the LEMPs, whilst ensuring that the local plans do not contradict the wider scale needs of the habitats and species concerned.

Question 2.2.13

Bio-security measures to prevent the spread of invasive and non-invasive species are proposed to be included within the CEMP (ES App 11.12 para 6.6.6 APP-700). Why is this not included in the CoCP, LEMP or addressed as a separate DCO Requirement?

Response

47. Appropriate measures for control of invasive and non-invasive species (bio-security measures) is an obligation contained in section 12.2 of the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026) which states: "*The main contractors will implement appropriate treatment of any invasive non-native species in order to comply with the legislation and prevent their further spread...*".
48. Paragraph 1.1.3 of the CoCP states "*The CoCP contains control measures and the standards to be implemented throughout construction of the A14 Cambridge to Huntingdon improvement scheme. At a local level, site specific control measures will be included within local environmental management plans*".
49. The appropriate measures within section 12.2 of the CoCP that are relevant to the local level would therefore be incorporated into the LEMPs.
50. The reference to this matter being addressed via the CEMP in the *Assessment of Implications for European Sites* (Applicant reference 6.3 Appendix 11.12, PINS reference APP-700) was in error. As set out in this response, control of invasive and non-invasive species will be addressed via the CoCP and LEMPs.
51. The obligations within the CoCP are secured adequately in the requirement contained in paragraph 4 of Part 1 of Schedule 2 to the latest version of the draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96). Therefore Highways England does not consider a separate requirement dealing with bio-security measures is necessary.

Question 2.2.14

How would the detailed design of the restoration and enhancement of the Buckden Gravel Pits CWS be developed in consultation with the owner and NE and how would this be secured in the DCO?

Response

52. The detailed design of restoration and enhancement of the Buckden Gravel Pits County Wildlife Site (CWS) would be informed by pre-construction surveys following the making of the DCO (if the application is granted).
53. Highways England is continuing to consult with Natural England on a range of matters, the current status of which is documented in the *Statement of Common Ground* submitted at Deadline 7 (Applicant reference HE/A14/EX/98). At a telephone meeting held on 3 August, Natural England expressed that it is content that the detailed design of the Buckden Gravel Pits CWS restoration and enhancement is a matter for detailed design (following the making of the DCO, if the application is granted). Natural England also advised that as its role is primarily in relation to nationally protected sites and species it would expect the local authorities rather than Natural England to be consulted on the design.
54. Consultation with local authorities would be undertaken throughout the development of the detailed design after the DCO is made (if the application is granted) for Buckden Gravel Pits CWS. There are two main points at which consultation would take place:
- a. drafting and agreeing a pre-construction survey plan; and
 - b. developing a restoration and enhancement design of mitigation. This is anticipated to be an iterative process with the local authorities because the design would be undertaken in parallel with the detailed design of the bridge construction.
55. Please also see response to written question 2.2.18 for consultation on this matter with the local authorities.
56. Consultation with the current owners of the CWS would involve arranging access for pre-construction surveys and monitoring during construction and would not be necessary for detailed design of the restoration and enhancement. The restoration and enhancement works would be carried out on land owned by Highways England, following compulsory acquisition (if the application is granted).

57. The mitigation and enhancement proposals for Buckden Gravel Pits CWS would be incorporated into the Local Environmental Management Plan (LEMP). Consultation and agreement of the LEMP is secured through the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026). Paragraph 12.1.3 of the CoCP states “*Where appropriate (and in line with the commitments in the ES), the main contractors will mitigate the loss of ecologically important habitats through habitat creation*”. Paragraph 11.5.52 of the *Environmental Statement* (Applicant reference 6.1, PINS reference APP-342) commits to the restoration of habitats within the CWS.
58. The draft CoCP is being updated and will be re-submitted at Deadline 8. The revised draft of the CoCP will include an obligation to prepare a site management plan in consultation with the local authorities for the Buckden Gravel Pits CWS (including pre-construction surveys required) and append this to the LEMP.
59. The requirement contained in paragraph 4 of Part 1 of Schedule 2 to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96) states “*The authorised development must be carried out in accordance with the provisions of the code of construction practice*”.

Question 2.2.15

Please provide a detailed lighting plan which demonstrates that lighting would be used only where essential and demonstrating how light spill onto bat commuting and foraging areas would be minimised.

Response

60. The proposed extent of road lighting within the scheme can be seen on the *General Arrangement Plans* (Applicant reference 6.2, 2.02, PINS reference APP-012 to APP-040) submitted as part of DCO application, indicated by yellow shading. The extent of lighting shown on the plans has been agreed between Highways England and Cambridgeshire County Council (see section 4.9 of the *Statement of Common Ground* between Highways England and the Council submitted for Deadline 7 (Applicant reference HE/A14/EX/98)) as the generally preferred and necessary limits of new or amended road lighting, based on a number of considerations and evaluated factors, including the use of lighting as an accident mitigation tool, the risks and costs of maintenance, the cost of energy, new technologies and environmental impact.
61. An additional requirement has been added to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96), which requires a lighting scheme be submitted to and approved by the Secretary of State. This requirement will also ensure that the lighting is provided to at least the standard assumed for the purposes of the *Environmental Statement (ES)* (Applicant reference 6.1, PINS reference APP-331 to APP-352).
62. The detailed design of lighting in relation to minimising spill onto bat commuting and foraging areas would be subject to the requirement contained in paragraph 5(2) of Part 1 of Schedule 2 to the draft DCO (as confirmed by Highways England in its response to written question 2.2.10), which requires that for European or nationally protected species the detailed design of protection and mitigation measures would be submitted to and approved by the Secretary of State after consultation with Natural England. All bats are European protected species.
63. Detailed information regarding bat commuting and foraging areas would be available at detailed design stage (if the application is granted). Designs would take due consideration of this more detailed information along with:
- a. *Guidance in Bats and Lighting: Overview of current evidence and mitigation* (Stone, E.L. 2013) and *Artificial lighting and wildlife: Interim Guidance: Recommendations to help minimise the impact of artificial lighting* (Bat Conservation Trust, 2014);

- b. Good industry practice in design, as described in Highways England's response to question 1.9.8 set out in *Response to ExA's First Written Questions: Report 9 Landscape and Visual Effects* (Applicant reference HE/A14/EX/36, PINS reference REP2-010);
- c. *Bats and lighting in the UK, Bats and the Built Environment Series* (BCT, 2009); and
- d. *Interim Advice Note 116/09: Nature Conservation Advice in Relation to Bats* (Highways Agency, 2008).

Question 2.2.16

Please provide an update regarding progress towards issuing Letters of No Impediment (LONI) with regard to bats, great crested newts, badgers and water voles. What assurance can be given to the ExA that these matters will be in place before the close of the examination.

Response

64. Second draft licence applications for bats, badgers and water voles were submitted to Natural England on 29 June 2015 and the second draft licence for great crested newts on 10 July 2015.
65. Progress on this matter was discussed with Natural England during a telephone meeting on 3 August 2015 where Natural England confirmed it was considering these documents.
66. Natural England sent letters to Highways England on 13 August to say it sees no impediment to a licence being issued, should the Development Consent Order be granted, for bats and water voles.
67. Highways England and Natural England anticipate that letters of no impediment with regard to great crested newts and badgers will be issued soon and are confident that they will be issued before the close of the examination.

Question 2.2.17

Please confirm whether information requested with regard to outstanding issues relating to great crested newts and water voles has been received and if so whether there are still outstanding issues.

Response

68. This question is not directed to Highways England and Highways England will comment on any response from Natural England (if necessary) at Deadline 8.
69. However, Highways England confirms that it has submitted further information, as requested by Natural England, in respect of great crested newts and water voles.
70. Natural England sent letters to Highways England on 13 August to say it sees no impediment to a licence being issued, should the DCO be granted, for water voles. Highways England and Natural England anticipate that letters of no impediment with regard to great crested newts will be issued soon and are confident that they will be issued before the close of the examination.

Question 2.2.18

The local authorities are concerned about a lack of assessment work undertaken on the County Wildlife Sites particularly the Buckden Gravel Pits CWS and the Fenstanton CWS. Please provide a detailed response setting out how this matter is to be addressed.

Response

71. Highways England consider the assessment work to have been adequately carried out in accordance with published guidance (see paragraphs 4.3.1 to 4.3.5 *Highways England's comments on the Written Representations Report 1 - Local Authorities* (Applicant reference HE/A14/EX/49, PINS reference REP4-011)) for the purposes of assessing the likely significant effects. Chapter 11 of the *Environmental Statement (ES)* (Applicant reference 6.1, PINS reference APP-342) concludes there would be neutral effect (i.e. no significant effects) on Buckden Gravel Pits and Fenstanton County Wildlife Sites (CWS).
72. Highways England has set out its response to the concerns about a lack of assessment work undertaken on CWSs in its *Comments on Written Representations Report 1 – Local Authorities*.
73. Highways England continues to engage with the Local Authorities and their ecological advisors as documented in the Statements of Common Ground between Highways England and the Local Authorities.
74. Highways England considers that the differences of view on the assessment work are best addressed by engagement with the local authorities on an approach to mitigation and restoration of the CWSs to achieve the best possible outcome for the sites. It does not consider there was a need for further assessment at the ES stage.
75. Highways England has provided a discussion document to Cambridgeshire County Council developing thoughts on what it would expect pre-construction surveys, mitigation and enhancement would look like in respect of the CWSs. The discussion document is intended to be a vehicle around which consultation could build confidence in the approach to how Highways England and their contractors would ensure the best possible outcome for the CWSs.
76. Highways England's proposed approach to mitigation and restoration is summarised below. This approach includes:
 - a. detailed design following the making of the DCO (if the application is granted), which would include pre-construction surveys;

- b. consultation with the local authorities on the design through a site management plan, giving them opportunity to influence the end result for the CWSs;
- c. design of enhancement measures where practicable, which would overcome any uncertainty on the end result for the CWS by providing beneficial measures; and
- d. amendments to the CoCP, which would be submitted at Deadline 8 to secure these works through site management plans.

Approach to mitigation and restoration

77. The ES concluded there would no significant effects on the CWSs, in light of design mitigation that took into account best practice construction methods. Best practice construction methods would prevent potential effects from being significant residual effects across the scheme. In addition, site-specific design mitigation works have been identified to mitigate potential effects for Buckden Gravel Pits CWS and Fenstanton CWS. These two sites are considered further in separate sections below. No other CWS require site-specific design mitigation works.
78. Highways England considers the development of site-specific design mitigation works would address the local authorities' concerns over achieving the best possible outcome for the CWSs.
79. For Buckden Gravel Pits CWS and Fenstanton CWS, site-specific design mitigation works would be undertaken as part of the detailed design process, following the making of the DCO (if the application is granted). To secure this, the revised CoCP, to be submitted at Deadline 8, will include specific requirements to prepare site management plans for Buckden Gravel Pits and Fenstanton CWSs and append these to the LEMP.
80. The requirement contained in paragraph 4 of Part 1 of Schedule 2 to the revised draft DCO submitted at Deadline 7 (Applicant reference HE/A14/EX/96) states "*The authorised development must be carried out in accordance with the provisions of the code of construction practice*"
81. The detailed design process would be informed by pre-construction surveys and would seek to minimise any potential effects on the sites and maximise opportunities to enhance the sites as far as practicable within the DCO boundary.

82. Consultation with local authorities would be undertaken throughout the development of the detailed design for Buckden Gravel Pits and Fenstanton CWSs. There are two main points at which consultation would take place:

- a. drafting and agreeing a pre-construction survey plan; and
- b. developing a restoration and enhancement design of mitigation. This is anticipated to be an iterative process with the local authorities because the design would be undertaken in parallel with the detailed design of the bridge construction.

83. Further details on the process by which the main contractors would address consultation responses is set out in Highway England's response to written questions 2.2.1 and 2.2.24.

Fenstanton Pits CWS

84. The ES concludes that there would be no effect from direct habitat loss at the CWS and so there would be no requirement for restoration of habitats within the CWS. The key potential effects on the CWS (that were assessed as insignificant in the ES because of the commitment to best practice construction methods) are changes in water levels due to the dewatering of the borrow pit to the south and dust from construction activities. These potential effects on the CWS are from influences from the scheme outside the CWS boundaries.

85. Enhancement of the CWS would be achieved through the restoration of the borrow pit to the south of the site. The habitat creation within the borrow pit would enhance the CWS through increasing the size of the area of semi-natural habitat and providing buffer habitat to the site. The CWS would also have greater ecological connectivity to the surrounding landscape, allowing greater movement of wildlife in and out of the CWS and expansion of its range.

86. Pre-construction surveys would be carried out to provide up to date site-specific baseline information to inform the detailed design. Surveys would include:

- targeted vegetation and aquatic invertebrate surveys of the CWS to identify relative ecological diversity and factors influencing it, such as water depth, bed substrate and land form (to be carried out in Spring and Summer 2016); and
- water (surface water and groundwater) level monitoring (to be carried out from Spring 2016 until completion of construction).

87. Mitigation measures would include the following measures as appropriate in relevant locations:

- For dewatering operation:

- detailed assessment of water monitoring dataset prior to starting construction to refine the mitigation measures defined in the ES; and
- specific mitigation measures may include re-directing water to recharge impacted surface water receptors, limiting the depth of excavation in specific locations, installation of appropriately designed barriers or working without dewatering (i.e. dredging).
- For dust management:
 - regular water-spraying and sweeping of unpaved and paved roads to minimise dust, and remove mud and debris;
 - minimising the surface area of unmade roads;
 - using wheel washes and/or shaker bars for vehicles leaving the site where appropriate to minimise the amount of mud and debris deposited on the roads;
 - sheeting vehicles carrying dusty materials to prevent materials being blown from the vehicles whilst travelling;
 - enforcing speed limits for vehicles on unmade surfaces to minimise dust entrainment and dispersion;
 - dampening down of surfaces prior to their being worked;
 - storing dusty materials away from site boundaries;
 - constructing outer faces of stockpiled soils first to provide a barrier between tipping operations which would also act as a windbreak;
 - seeding to grass the outward faces of temporary stockpiles and final embankment profiles; and
 - not loading spoil into dump trucks from an excessive height.

Buckden Gravel Pits CWS

88. The scheme will have direct habitat loss effects on the CWS (although these are not considered to be significant in the ES). Enhancement of the site is therefore proposed to off-set the effects of habitat loss by increasing the quality of the remaining habitat.

89. The key issue in restoring and enhancing the CWS is to maximise the area of the most diverse habitats in the site. Shallow margins of old gravel workings are more diverse than deep open water habitats as they have a wider range of plants and animals associated with them. Enhancement of areas within the DCO boundary, which would not be required for construction work would be carried out as soon as practicable so that the habitats could begin to mature before the main construction work begins, providing a receptor area for species to move into during construction. Such locations would be identified as part of the detailed design process and incorporated into the site management plan.
90. It is intended that enhancement measures would be commenced prior to main construction on the bridge where practicable.
91. Pre-construction surveys would include:
- targeted vegetation and aquatic invertebrate surveys of the CWS to identify relative ecological diversity and factors influencing it, such as water depth, bed substrate and land form;
 - detailed topographical survey of the CWS within the DCO boundary; and
 - breeding bird survey of the CWS with particular focus on species of county value such as Cetti's and grasshopper warbler and the potential zone of influence of noise disturbance.
92. Mitigation measures would include identifying as early as possible in detailed design (following the making of the DCO, if the application is granted) all areas within the DCO boundary that would not be required for construction. These areas would then be subject to enhancement measures to begin at the earliest possible stage after the making of the DCO, if the application is granted.
- Mitigation would include:
 - land forming to provide conditions suitable for formation of the most diverse habitats in the CWS (as identified in pre-construction surveys); and
 - translocation of plants, turfs and bed substrate from diverse habitats in the CWS to provide an inoculum of species into the new habitats.

Question 2.2.20

Cambridgeshire County Council (CCC) suggested a new DCO Requirement (WR14.4.1) to ensure the protection of species of County or District importance. The applicant has responded by indicating that the issue is adequately covered within the CoCP by way of the CEMP and LEMP. Would CCC like to comment on the applicant's response, as set out in paragraphs 4.7.16-4.7.20 of the applicant's comments on CCC's Written Representation (REP4-011)?

Response

93. This question is not directed to Highways England and a response is therefore not provided.

Question 2.2.21

The applicant's response to Q1.2.18 does not consider the possibility that several insignificant effects occurring together could become significant. Could the applicant comment?

Response

94. Highways England agrees that in principle several insignificant effects can become significant if occurring together. However, for the scheme to have significant in-combination effects with other developments there would need to be insignificant effects identified from the scheme combining with insignificant effects from other developments which, when taken together, would equate to a significant effect.
95. The assessment in stage one of the assessment of implications for European sites (AIES) process requires that potential effects on a European site are assessed as to whether they would be likely significant effects, or not. Any likely significant effects identified would require further assessment at stage two (assessment of whether any likely significant effects would have an adverse effect on the integrity of the site, or not).
96. The stage one assessment in the AIES submitted for the scheme (Appendix 11.12 of the *Environmental Statement Appendices*, Applicant reference 6.3, PINS reference APP-700) concludes there would be no likely significant effects alone from the scheme.
97. The stage one assessment was an assessment of any conceivable effects (beyond an inconsequential or de minimis threshold). The stage one assessment did not identify any insignificant effects, as these would have been identified as likely significant effects, as they would have been conceivable.
98. As there would be no likely significant effects from the scheme (and indeed some effects would be beneficial) on all European sites there would be no effect (i.e. not even insignificant effects) to combine with other developments.

Question 2.2.22

Please confirm the outcome of discussions with Dr. James Patrick Doody, Ecologist – Brampton Biodiversity Project re Brampton Meadows SSSI.

Response

99. Highways England invited Dr. Doody, by letter dated 6 August 2015, to discuss the information referred to in his written representation and how it could be made available to Highways England to inform the detailed design of the habitat mitigation areas to be created by the scheme.
100. Highways England received a response from Dr. Doody by email on 10 August asking to be called to discuss the matter. The recipient of the email was on leave until 17 August. Dr. Doody was called on 18 August to discuss his information. Dr. Doody is keen to have the data he has recorded over years put to good use and has provided a website with information, which Highways England is reviewing. Highways England will continue discussions with Dr. Doody.
101. Progress on engagement with Dr. Doody was discussed with Natural England during a telephone meeting on 3 August 2015. Natural England have stated to Highways England that it is content that the request for and use of such information is a matter for detailed design and it would have opportunity to comment on design documentation. Natural England do not wish to be involved in discussions with Dr. Doody, but requested that any data received be copied to it for its records. Highways England will share the website with Natural England.

Question 2.2.23

Advice Note AN10 provides a template for matrices to accompany the applicant's AIES. Please provide three separate matrices for:

- **The Ouse Washes SAC,**
- **The Ouse Washes SPA and**
- **The Ouse Washes Ramsar site.**

The applicant should refer to the advice and templates in the PINS Advice Note 10 when preparing these matrices. Each matrix should list all the qualifying features for each designated site and consider these features individually (i.e. follow the approach taken in Table 2.7).

When producing these matrices, the applicant should be mindful of the request made by the ExA in their Rule 6 letter (PD-003), regarding accurate identification of evidence. The matrices need to be provided in both PDF and Word format.

Response

102. Three separate matrices for the Ouse Washes European sites have been provided in the *Assessment of implications on European sites PINS advice note 10 screening matrices* (Applicant reference HE/A14/EX/110).

Question 2.2.24

The applicant has provided two documents relating to the Ouse Washes SPA which are based on two different data sets for the qualifying features (the AIES is based on the qualifying features included on the Natura 2000 standard data form and Table 2.7 is based on the 2001 UK SPA review qualifying features). Please confirm, in consultation with NE, the correct qualifying features for the Ouse Washes SPA and provide a screening matrix for this European site. The applicant should refer to the advice and templates in the PINS Advice Note 10 when preparing this matrix; and ensure that the matrix includes a row for each qualifying feature, together with appropriate footnotes to specify where the evidence supporting the conclusions of the screening assessment on these features can be found.

Five species identified on the Natura 2000 data form were not included in the AIES. Please explain this discrepancy and confirm in consultation with NE whether these species should be considered as qualifying features of the Ouse Washes SPA.

Response

104. The Assessment of Implications for European Sites (AIES) (Appendix 11.12 of the *Environmental Statement Appendices*, Applicant reference 6.3, PINS reference APP-700) is based on the list of qualifying features in the European site conservation objectives for the Ouse Washes SPA (see Appendix A.9 Ouse Washes SAC & SPA conservation objectives of the AIES).
105. The list of qualifying features in the conservation objectives were used, as required by Regulation 61 of the Conservation of Habitats and Species Regulations (2010), to make an appropriate assessment of the implications of the scheme in view of the site's conservation objectives.
106. The AIES was not based on the data set within the Natura 2000 standard data form. This is because the list of features within the standard data form is a list of species present on the site and not a list of the species that are qualifying features. The standard data form was therefore only used to inform the vulnerabilities of the site in the assessment (see paragraph 3.3.6 of the AIES).
107. Table 2.7 of Highways England's *Response to ExA's First Written Questions: Report 2 Biodiversity and Ecological Conservation* (Applicant reference HE/A14/EX/29, PINS reference REP2-003) is based on the 2001 UK SPA review qualifying features. This list was used in error in the response to written questions. Although the 2001 UK SPA review gives the latest information and recommendations for qualifying features, the list in the review has not been incorporated into a new citation and so is not the official list of qualifying features.

108. The list of qualifying features for the Ouse Washes SPA has been discussed with Natural England during a telephone call, on 3 August 2015 and via emails. Natural England advised that the correct qualifying features of the SPA are those in the original citation from 1992, which has not been updated and so remains the definitive list of qualifying features. An extract of the 1992 citation is provided at paragraph 113.
109. The correct list of qualifying features (from the 1992 citation) is:
- During the breeding season:
 - Ruff *Philomachus pugnax*;
 - Black-tailed Godwit *Limosa limosa limosa*;
 - Gadwall *Anas strepera*;
 - Shoveler *Anas clypeata*;
 - Mallard *Anas platyrhynchos*;
 - Garganey *Anas querquedula*;
 - Over winter:
 - Bewick's Swan *Cygnus columbianus bewickii*;
 - Hen Harrier *Circus cyaneus*;
 - Whooper Swan *Cygnus cygnus*; and
 - Assemblage of international importance:
 - Supporting at least 20,000 waterfowl.
110. Whilst the list of qualifying features within the AIES (based on the conservation objectives) is different from the list in the 1992 citation, all qualifying features in the 1992 citation are considered within the AIES. The errors within the AIES therefore make no change to the conclusions of the assessment and therefore the AIES is compliant with the Regulations.
111. The five species in the Natura 2000 standard data form, which are not in the list of qualifying features in the AIES are also not prescribed in the 1992 citation. Highways England can confirm that they should not be considered as qualifying species. Natural England has confirmed that this is the case in indicating that the 1992 citation is the definitive list for assessment.
112. Amended matrices for the Ouse Washes SPA (based on the 1992 citation qualifying species) are contained in the *Assessment of implications on European sites PINS advice note 10 screening matrices* (Applicant reference HE/A14/EX/110).

113. For ease of reference, Table 2.1 shows the lists of species identified in the different information sources, which includes those features present or qualifying on the Ouse Washes SPA.

Table 2.1: Species listed for Ouse Washes SPA

	Natura 2000 data form	JNCC 2001 review	Conservation objectives	1992 Citation	AIES	Table 2.7 from first written questions
Internationally important breeding population						
Ruff		X	X	X	X	X
Spotted Crake		X				X
Internationally important winter population						
Bewick's Swan	X	X	X	X	X	X
Hen Harrier	X	X	X	X	X	X
Ruff	X	X				X
Whooper Swan	X	X	X	X	X	X
Teal	X		X		X	
Mute swan	X					
Coot	X					
Cormorant	X					
Migratory breeding population						
Black-tailed Godwit		X	X	X	X	X
Gadwall	X	X	X	X	X	X
Shoveler	X	X	X	X	X	X
Mallard	X		X	X	X	
Garganey	X		X	X	X	
Migratory winter population						
Black-tailed Godwit		X				X
Gadwall	X	X				X
Pintail	X	X	X		X	X
Pochard	X	X				X
Tufted duck	X					
Shoveler	X	X	X		X	X
Wigeon	X	X	X		X	X
Assemblage: 20,000 waterfowl		X	X	X	X	X
Breeding bird assemblage			X		X	

114. The 1992 citation reads as follows:

EC Directive 79/409 on the Conservation of Wild Birds: Special Protection Area

Ouse Washes (Cambridgeshire, Norfolk)

The Ouse Washes Ramsar site and proposed Special Protection Area is a wetland of major international importance comprising seasonally flooded washlands which are agriculturally managed in a traditional manner. It provides breeding and winter habitats for important assemblages of wetland bird species, particularly wildfowl and waders.

The boundaries of the proposed Special Protection Area are coincident with those of the Ouse Washes SSSLI apart from the exclusion of a section of the Old Bedford River in the north of the SSSLI.

The Ouse Washes qualifies under Article 4.1 of the EC Birds Directive by supporting, in summer, a nationally important breeding population of ruff *Philomachus pugnax* an Annex 1 species. In recent years an average of 57 individuals have been recorded lekking, a significant proportion of the British population.

The site also qualifies under Article 4.1 by regularly supporting internationally or nationally important wintering populations of three Annex 1 species. During the five year period 1986/87 to 1990/91, the following average peak counts were recorded: 4,980 Bewick's swan *Cygnus cygnus bewickii* (29% of the north-west European wintering population, 70% of the British wintering population), and 590 whooper swans *Cygnus cygnus* (3% of the international population, 10% of British). In addition, between 1982-87 an average of 12 wintering hen harrier *Circus cyaneus* was recorded, representing 2% of the British wintering population

The Ouse Washes qualifies under Article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of five migratory species. 111 pairs of gadwall *Anas strepera* (20% of the British breeding population); 850 pairs of mallard *Anas platyrhynchos* (2% of British); 14 pairs of garganey *Anas querquedula* (20% of British). 155 pairs of shoveler *A. clypeata* (12% of British), and 26 pairs of black-tailed godwits *Limosa limosa* (44% of British).

The site further qualifies under Article 4.2 as a wetland of international importance by virtue of regularly supporting over 20,000 waterfowl, with an average peak count of 60,950 birds recorded in the five winter period 1986/7 to 1990/91. This total included internationally or nationally important wintering populations of the following migratory waterfowl (figures given are average peak counts for the five winter period 1986/87 - 1990/91): 270 cormorant *Phalacrocorax carbo* (296 of the British wintering population); 490 mute swan *Cygnus olor* (3% of British); 38,000 wigeon *Arenas penelope* (5% of the north-west European population. 15% of British); 320 gadwall *Anas strepera* (5% of British); 4,100 teal *A. crecca* (1% of NW European, 4% of British); 1,450 pintail *Anas acuta* (2% NW European, 6% of British); 750 shoveler *Anas clypeata* (2% of NW European, 8% of British); 2,100 pochard *Aythya ferina* (4% of British); 860 tufted duck *Aythya fuligula* (1% of British); and 2,320 coot *Fulica atra* (1% of British). 2

The site also qualifies under Article. 4.2 by virtue of regularly supporting, in summer, a diverse assemblage of the breeding migratory waders of lowland wet grassland, including: oystercatcher *Haematopus ostralegus*, redshank *Tringa totanus*, snipe *Gallinago gallinago*, ruff *Philomachus pugnax*, lapwing *Vanellus vanellus*, and blacktailed godwit *Limosa limosa* and a diverse assemblage of breeding wildfowl with mute swan *Cygnus olor*, shelduck *Tadorna tadorna*, gadwall *Anas strepera*, teal *A. crecca*, mallard *A. platyrhynchos* pintail *A. acuta*, garganey *A. querquedula*, shoveler *A. clypeata*, pochard *Aythya ferina*, tufted duck *Aythya fuligula*, moorhen *Gallinula chloropus* and coot *Fulica atra* occurring regularly. Many of these species are rare and much restricted in Britain and the European Community owing to habitat loss and degradation. The site thus has an important role in maintaining the ranges of several of these species which have been affected by changes in habitat elsewhere in Britain.

During severe winter weather elsewhere, the Ouse Washes can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate, compared with continental European areas and the abundant food resources available.

The continued international importance of this site is dependant on the maintenance of a winter flooding regime and a high, but controlled summer water table.

SPA Citation

DAS/HTR June 1992

This citation/map relates to a site entered on the Register of European sites for Great Britain.

Register reference number.....UK000804.....

Date of registration.....30 Jan 1996.....

Signed..... on behalf of the Secretary of State for the Environment

Question 2.2.25

Paragraph 5.1.6 of the AIES indicates that the applicant is relying on best practice design and construction practices to mitigate any likely significant effects on European sites. Please provide a breakdown of the relevant best practice measures which have been relied upon to reach the conclusion of no likely significant effects and demonstrate how such measures will be secured through the DCO and incorporated into the CoCP.

Response

115. The best practice design and construction practices and measures which are relied upon to mitigate effects on European sites in the Assessment of Implications for European Sites (AIES) (Appendix 11.12 of the *Environmental Statement Appendices*, Applicant reference 6.3, PINS reference APP-700) are set out at paragraphs 5.1.3, 5.1.4 and 5.1.5 of that document.
116. The measures relied upon are those that reflect the best practice set out in industry and Environment Agency guidance environmental practice.
117. The guidance relied upon comprise the Pollution Prevention Guidelines (PPG) and other guidance published by the Environment Agency together with industry guidance published by CIRIA:
- a. PPG01, *Understanding your environmental responsibilities*;
 - b. PPG02, *Above ground oil storage tanks*;
 - c. PPG03, *Choosing and using oil separators: prevent pollution*;
 - d. PPG04, *Treatment and disposal of sewage where no foul sewer is available*;
 - e. PPG05, *Works in, near or over watercourses*;
 - f. PPG06, *Construction and demolition sites: prevent pollution*;
 - g. PPG13, *Vehicle washing and cleaning: prevent pollution*;
 - h. PPG18, *Managing firewater and major spillages*;
 - i. PPG22, *Dealing with spills*;
 - j. PPG23 *Maintenance of structures over water*;
 - k. C962 – *Environment Good Practice on Site* (3rd Edition) (CIRIA, 2010);

Question 2.2.26

Requirement 5 of the DCO would provide for pre-construction survey work to be undertaken to establish whether European or nationally protected species are present. Cambridgeshire County Council has requested a new Requirement in respect of locally important species. Further to the comments provided in response to this request at the DCO Hearing that the applicant is giving further consideration to this matter please provide an update.

Response

122. Highways England considers that species of County or District importance are adequately addressed in the CoCP (Applicant reference HE/A14/EX/64, PINS reference REP4-026), by way of the Construction Environmental Management Plans and Local Environmental Management Plans (LEMPs).
123. Paragraph 12.1.7 of the CoCP states: *"In accordance with the mitigation and other measures set out in the ES, the main contractors will undertake pre-construction surveys to determine the current status and distribution of protected and notable species and their current status and distribution along the scheme"*. Paragraph 12.1.3 states *"Where appropriate (and in line with the commitments in the ES), the main contractors will mitigate the loss of ecologically important habitats through habitat creation"*. Paragraph 12.1.5 of the CoCP states *"The main contractors will consult with the local authorities, Natural England the Environment Agency and the local wildlife trusts, as appropriate, regarding preparation of the ecological aspects of the relevant LEMPs"*.
124. The CoCP is secured through paragraph 4 of the revised draft DCO (Applicant reference HE/A14/EX/59, PINS reference REP4-021) and therefore a specific requirement has not been added in the revised draft DCO submitted at Deadline 7.
125. Cambridgeshire County Council will play a key role in the development of the LEMPS, which will deal with nature conservation measures required before and during construction of the authorised development. Any measures required in relation to species of County or District importance (including any need to carry out pre-construction surveys) would be captured in these documents.
126. It is acknowledged that the current draft of the CoCP is ambiguous as to the meaning of "notable species" in paragraph 12.1.7 in relation to locally important species. An amended CoCP will be submitted for Deadline 8 (2 September 2015) to replace "notable" with "locally important" in paragraph 12.1.7 to align more precisely with Cambridgeshire County Council's terminology.

127. The CoCP commits the applicant to delivering the proposed mitigation. If 'Requirement 5' was amended (or a new requirement included) to include locally important species, this would impose an unnecessary and undeliverable constraint on construction in that it would imply protection of individuals of all locally (and above) important species.
128. Protected species are protected in law and therefore failure to take reasonable precautions to protect them would constitute an offence. The requirement contained in paragraph 5 of Part 1 of Schedule 2 to the draft DCO is specific to protected species for this reason. The pre-construction surveys for protected species would inform the scheme of protection and mitigation measures that would be submitted to and approved in writing by the Secretary of State after consultation with Natural England.
129. The term “important species” relates to the conservation value of a population at a geographical scale. A species is said to be important at a local, district, county, national or international level if effects on the species would affect the conservation status of the species at that geographical scale. Effects on a nationally rare species would affect the conservation status of the species at a national level and so the species would be considered to be nationally important. For commoner and more widespread species, effects on a population would only affect the conservation status of the species at a lower scale and so would be considered locally, district or county important species.
130. The importance of a species (its conservation value) does not confer any legal protection. The planning system takes due regard of the importance of species populations through environmental impact assessment, which informs the acceptability of proposals in terms of residual effects on biodiversity.
131. The mitigation described in the *Environmental Statement (ES)* (Applicant reference 6.1, PINS reference APP-331 to APP-352) and the restoration and long term management of the borrow pits would avoid any residual significant effects on biodiversity and populations of species at all levels of importance. These measures are secured through the CoCP and through the specific borrow pit plans. It is therefore not necessary to “protect” through a requirement, individuals of non-protected species, whatever their level of importance.
132. If it were necessary to protect all individuals of all species of district and county value, the measures required would be undeliverable because of the widespread and relatively common nature of these species.

133. Highways England therefore does not consider it appropriate to include a new Requirement in the DCO in respect of locally important species as Cambridgeshire County Council has requested. However, the matter is subject to on-going consultation with the Council and their ecological advisors which will be documented in the Statement of Common Ground between Highways England and Cambridgeshire County Council.

Appendix 2.1

Part X

For the Protection of the Environment Agency

1. The following provisions apply for the protection of the Agency unless otherwise agreed in writing between the undertaker and the Agency.

2. In this Part of this Schedule—

“the Agency” means the Environment Agency;

“construction” includes execution, placing, altering, replacing, relaying and removal and

“construct” and “constructed” are to be construed accordingly;

“drainage work” means any watercourse forming part of a main river as defined in the Water Resources Act 1991 and includes any land which provides or is expected to provide flood storage capacity for any such watercourse and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage or flood defence and any ancillary works constructed as a consequence of works carried out for drainage purposes;

“fishery” means any waters containing fish and fish in such waters and the spawn, habitat or food of such fish;

“maintenance” has the same meaning as article 2(1);

“plans” includes sections, drawings, specifications and method statements;

“specified work” means so much of any work or operation authorised by this Order as is in, on, under, over or within 9 metres of a drainage work or is otherwise likely to—

(a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work;

(b) affect the flow, purity or quality of water in any watercourse or other surface waters or ground water;

(c) cause obstruction to the free passage of fish or damage to any fishery; or

(d) affect the conservation, distribution or use of water resources; and

“watercourse” includes all rivers, streams, ditches, drains, cuts, culverts, dykes, sluices, sewers and passages through which water flows except a public sewer.

3. (1) Before beginning to construct any specified work, the undertaker must submit to the Agency plans of the specified work and such further particulars available to it as the Agency may within 28 days of the receipt of the plans reasonably require.

(2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the Agency, or determined under paragraph 12.

(3) Any approval of the Agency required under this paragraph—

(a) must not be unreasonably withheld or delayed;

(b) is deemed to have been given if it is neither given nor refused within 8 weeks of the submission of the plans or receipt of further particulars if such particulars have been required by the Agency for approval and, in the case of a refusal, accompanied by a statement of the grounds of refusal; and

(c) may be given subject to such reasonable requirements as the Agency may make for the protection of any drainage work, fishery or water resources, for the prevention of flooding or pollution or in the discharge of its environmental duties including those under the Environment Act 1995, the Natural Environment and Rural Communities Act 2006 and the Water Environment (Water Framework Directive)(England and Wales) Regulations 2003.

(4) The Agency must use its reasonable endeavours to respond to the submission of any plans before the expiration of the period mentioned in sub-paragraph (3)(b).

4. Without limitation on the scope of paragraph 3, but subject always to the provisions of that paragraph as to reasonableness, the requirements which the Agency may make under that paragraph include conditions requiring the undertaker at its own expense to construct such protective works, whether temporary or permanent, before or during the construction of the specified works (including the provision of flood banks, walls or embankments or other new

works and the strengthening, repair or renewal of existing banks, walls or embankments) as are reasonably necessary—

(a) to safeguard any drainage work against damage; or

(b) to secure that its efficiency for flood defence purposes is not impaired and that the risk of flooding is not otherwise increased, by reason of any specified work.

5. (1) Subject to sub-paragraph (2), any specified work, and all protective works required by the Agency under paragraph 4 must be constructed—

(a) without unnecessary or unreasonable delay;

(b) in accordance with the plans approved or deemed to have been approved or settled under this Schedule; and

(c) to the reasonable satisfaction of the Agency, and an officer of the Agency is entitled to watch and inspect the construction of such works.

(2) The undertaker must give to the Agency not less than 14 days' notice in writing of its intention to commence construction of any specified work and notice in writing of its completion not later than 7 days after the date on which it is completed.

(3) If the Agency reasonably requires, the undertaker must construct all or part of the protective works so that they are in place prior to the construction of any specified work.

(4) If any part of a specified work or any protective work required by the Agency is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the Agency may by notice in writing require the undertaker at the undertaker's own expense to comply with the requirements of this Part of this Schedule or (if undertaker so elects and the Agency in writing consents), such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the Agency reasonably requires.

(5) Subject to sub-paragraph (6) and paragraph 8 if, within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (4) is served upon the undertaker, it has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the Agency may execute the works specified in the notice and any expenditure incurred by it in so doing is recoverable from the undertaker.

(6) In the event of any dispute as to whether sub-paragraph (4) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the Agency must not except in an emergency exercise the powers conferred by sub-paragraph (5) until the dispute has been finally determined.

6. (1) Subject to sub-paragraph (5), the undertaker must from the commencement of the construction of a specified work until the date falling 12 months from the date of completion of such specified work ("the maintenance period"), maintain in good repair and condition and free from obstruction any drainage work which is situated within the limits of deviation and on land held by the undertaker for the purposes of or in connection with the specified work, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence. Upon the expiry of the maintenance period, the drainage work must be maintained by the highway authority of the highway to which the specified work relates.

(2) If any such drainage work which the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the Agency, the Agency may by notice in writing require the person liable for maintenance to repair and restore the work, or any part of such work, or (if the person liable for maintenance so elects and the Agency in writing consents, such consent not to be unreasonably withheld or delayed), to remove the work and restore the site to its former condition, to such extent and within such limits as the Agency reasonably requires.

(3) Subject to paragraph 8, if, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph

(2) on the person liable for maintenance of the specified work, that person has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the Agency may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the Agency must not except in a case of emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

(5) This paragraph does not apply to:

- (a) drainage works which are vested in the Agency, or which the Agency or another person is liable to maintain and is not proscribed by the powers of this Order from doing so; and
- (b) any obstruction of a drainage work for the purpose of a work or operation authorised by this Order and carried out in accordance with the provisions of this Part of this Schedule.

7. Subject to paragraph 8, if by reason of the construction of any specified work or of the failure of any such work the efficiency of any drainage work for flood defence purposes is impaired, or that drainage work is otherwise damaged, such impairment or damage must be made good by the undertaker to the reasonable satisfaction of the Agency and if the undertaker fails to do so, the Agency may make good the same and recover from the undertaker the expense reasonably incurred by it in so doing.

8. Except in an emergency nothing in paragraphs 5(5), 6(3) and 7 authorises the Agency to execute works on or affecting an adopted highway without the prior consent in writing of the undertaker or Cambridgeshire County Council, whichever is the highways authority for the adopted highway in question, such consent not to be unreasonably withheld or delayed.

9. The undertaker must indemnify the Agency in respect of all costs, charges and expenses which the Agency may reasonably incur or have to pay or which it may sustain—

- (a) in the examination or approval of plans under this Part of this Schedule;
- (b) in the inspection of the construction of the specified works or any protective works required by the Agency under this Part of this Schedule; and
- (c) the carrying out of any surveys or tests which are reasonably required in connection with the specified works.

10. Without affecting the other provisions of this Part of this Schedule, the undertaker must indemnify the Agency from all claims, demands, proceedings, costs, damages, expenses or loss, which may be made or taken against, recovered from, or incurred by, the Agency by reason of—

- (a) any damage to any drainage work so as to impair its efficiency for the purposes of flood defence;
- (b) any raising or lowering of the water table in land adjoining the authorised development or any sewers, drains and watercourses;
- (c) any flooding or increased flooding of any such lands; or
- (d) inadequate water quality in any water in any watercourse or other surface waters or in any groundwater,

which is caused by the construction of any of the specified works or any act or omission of the undertaker, its contractors, agents or employees whilst engaged upon the work.

(2) The Agency must give to the undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the agreement of the undertaker which agreement must not be unreasonably withheld or delayed.

11. The fact that any work or thing has been executed or done by the undertaker in accordance with a plan approved or deemed to be approved by the Agency, or to its satisfaction, or in accordance with any directions or award of an arbitrator, does not relieve the undertaker from any liability under the provisions of this Part of this Schedule.

12. Any dispute arising between the undertaker and the Agency under this Part of this Schedule is to be determined by arbitration.

PART 1

**FOR THE PROTECTION OF DRAINAGE AUTHORITIES IN RESPECT OF
ORDINARY WATERCOURSES**

1. The following provisions of this Part of this Schedule shall apply for the protection of a relevant drainage authority unless otherwise agreed between the undertaker and the relevant drainage authority.

2. In this Part of this Schedule—

“construction” includes execution, placing, altering, replacing, relaying and removal and “construct” and “constructed” are to be construed accordingly;

“drainage work” means an ordinary watercourse and includes any land which is expected to provide flood storage capacity for an ordinary watercourse and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage or flood defence in connection with an ordinary watercourse;

“key watercourse” means any of the following ordinary watercourses:

<i>Name of ordinary watercourse to be regarded as a key watercourse:</i>	<i>Description of ordinary watercourse to be regarded as a key watercourse:</i>

and in each case includes any land or area which is being used or is expected to be used to provide temporary or permanent flood storage capacity or relief for the watercourse and any bank, wall, embankment or other structure, or any appliance constructed or used for land drainage or flood defence in connection with the watercourse;

“ordinary watercourse” has the same meaning as given in section 72 (*Interpretation*) of the Land Drainage Act 1991;

“plans” includes sections, drawings, specifications and method statements; and

“relevant drainage authority” means Cambridgeshire County Council, an internal drainage board or any other body having functions in respect of a drainage work;

“specified work” means any of the following works carried out in relation to any ordinary watercourse —

- (a) erecting any mill dam, weir or other similar obstruction to the flow of the watercourse, or raising or otherwise altering any such obstruction;
- (b) erecting a culvert in the watercourse; or
- (c) altering a culvert in a manner that would be likely to affect the flow of the watercourse.

Key watercourses

3.—(1) Before beginning to construct any specified work in relation to a key watercourse, the undertaker shall submit to the relevant drainage authority plans of the work, and such further particulars available to the undertaker as that drainage authority may within 28 days of the submission of the plans reasonably require.

(2) Any such specified work in relation to a key watercourse must not be constructed except in accordance with such plans as may be approved in writing by the relevant drainage authority, or determined under paragraph 11.

(3) Any approval of the relevant drainage authority required under this paragraph—

- (a) must not be unreasonably withheld or delayed;
- (b) is to be deemed to have been given if it is neither given nor refused within 2 months of the submission of the plans for approval or where further particulars are submitted under sub-paragraph (1), within 2 months of the submission of those particulars; and
- (c) may be given subject to such reasonable requirements or conditions as the drainage authority may make for the protection of any key watercourse or for the prevention of flooding.

4. The requirements or conditions which a drainage authority may make under paragraph 3 include conditions requiring the undertaker at its own expense to construct such protective works (including any new works as well as alterations to existing works) as are reasonably necessary—

- (a) to safeguard any key watercourse against damage, or
- (b) to secure that the efficiency of any key watercourse for flood defence purposes is not impaired and that the risk of flooding is not otherwise increased,

by reason of the specified work in relation to a key watercourse.

5.—(1) Any specified work in relation to a key watercourse, and all protective works required by a drainage authority under paragraph 3, must be constructed to the reasonable satisfaction of the drainage authority and an officer of the drainage authority is entitled on giving such notice as may be reasonable in the circumstances, to inspect and watch the construction of such works.

(2) The undertaker must give to the relevant drainage authority not less than 14 days' notice of its intention to commence construction of any specified work in relation to a key watercourse and the undertaker must give to that drainage authority notice of completion of a specified work in relation to a key watercourse not later than 7 days after the date on which it is brought into use.

(3) If any part of the works comprising a structure in, over or under a key watercourse is constructed otherwise than in accordance with the requirements of this Part of this Schedule, the relevant drainage authority may by notice require the undertaker at its own expense to comply with the requirements of this Part of this Schedule or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the drainage authority reasonably requires.

(4) Subject to sub-paragraph (5), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (3) is served upon the undertaker, it has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the relevant drainage authority may execute the works specified in the notice and any expenditure reasonably incurred by it in so doing is to be recoverable from the undertaker.

(5) In the event of any dispute as to whether sub-paragraph (3) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the drainage authority must not, except in an emergency, exercise the powers conferred by sub-paragraph (4) until the dispute has been finally determined.

General

6.—(1) From the commencement of the construction of any specified work until the date falling 12 months from the date of completion of the specified work ("the maintenance period"), the undertaker must maintain in good repair and condition and free from obstruction the drainage work which is situated within the limits of deviation for that specified work and on land held by the undertaker for the purposes or in connection with the specified work, whether the drainage work is constructed under this Order or is already in existence. Upon the expiry of the

maintenance period, the drainage work must be maintained by the highway authority for the highway to which the specified work relates.

(2) If any such drainage work is not maintained to the reasonable satisfaction of the relevant drainage authority, that drainage authority may by notice require the person liable for maintenance of the drainage work to maintain the drainage work, or any part of it, to such extent as the drainage authority reasonably requires.

(3) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph (2) on the person liable for maintenance, that person has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the drainage authority may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the person liable for maintenance.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the relevant drainage authority must not except in a case of emergency exercise the powers of sub-paragraph (3) until the dispute has been finally determined.

7. If by reason of the construction of any specified work or of the failure of any such work the efficiency of any ordinary watercourse for flood defence purposes is impaired, or that watercourse is otherwise damaged, so as to require remedial action, such impairment or damage must be made good by the undertaker to the reasonable satisfaction of the relevant drainage authority and if the undertaker fails to do so, that drainage authority may make good the same and recover from the undertaker the expense reasonably incurred by it in doing so.

8.—(1) The undertaker must indemnify a relevant drainage authority in respect of all costs, charges and expenses which it may reasonably incur or which it may sustain—

- (a) in the examination or approval of plans under this Part of this Schedule; and
- (b) in the inspection of the construction of a specified work in respect of a key watercourse or any protective works required by a relevant drainage authority under this Part of this Schedule,

(2) The maximum amount payable to a relevant drainage authority under sub-paragraph (1)(a) or (b) shall be the same as would have been payable to the relevant drainage authority in accordance with the scale of charges for pre-application advice and land drainage consent applications published on the relevant drainage authority's website from time to time.

9.—(1) Without prejudice to the other provisions of this Part of this Schedule, the undertaker must indemnify a relevant drainage authority from all claims, demands, proceedings or damages, which may be made or taken against, or recovered from a relevant drainage authority by reason of—

- (a) any damage to any ordinary watercourse so as to impair its efficiency for flood defence purposes,
- (b) any raising or lowering of the water table in land adjoining the works authorised by this Order or adjoining any sewers, drains and watercourses, or
- (c) any flooding or increased flooding of any such lands,

which is caused by, or results from, the construction of any specified work or any act or omission of the undertaker, its contractors, agents or employees whilst engaged upon the work.

(2) A relevant drainage authority must give to the undertaker reasonable notice of any such claim or demand and no settlement or compromise of any such claim or demand is to be made without the consent of the undertaker which, if it withholds such consent, is to have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

10. The fact that any work or thing has been executed or done in accordance with a plan approved or deemed to have been approved by a relevant drainage authority, or to its satisfaction, does not (in the absence of negligence on the part of a relevant drainage authority, its officers,

contractors or agents) relieve the undertaker from any liability under the provisions of this Part of this Schedule.

11. Any dispute arising between the undertaker and a relevant drainage authority under this Part of this Schedule is to be determined by arbitration.

FOR THE PROTECTION OF NATIONAL GRID

Application

1. For the protection of National Grid as referred to in this Schedule the following provisions shall, unless otherwise agreed in writing between the undertaker and National Grid, have effect.

Interpretation

2. In this Schedule—

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of National Grid to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) electric lines or electrical plant as defined in the Electricity Act 1989^(b), belonging to or maintained by National Grid;
- (b) mains, pipes or other apparatus belonging to or maintained by National Grid for the purposes of gas supply;

“authorised development” has the same meaning as in article 2 of this Order and (unless otherwise specified) for the purposes of this Schedule shall include the use and maintenance of the authorised development;

“commence” has the same meaning as in article 2 of this Order and commencement shall be construed to have the same meaning;

“functions” includes powers and duties;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means either—

- (c) National Grid Electricity Transmission PLC (Company No. 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH; or
- (d) National Grid Gas PLC (Company No. 200600) whose registered office is at 1-3 Strand, London, WC2N 5EH;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed; and

“specified work” means so much of any of the authorised development that will or may be situated 15m (measured in any direction) of, or which may affect, any apparatus.

3. This Schedule does not apply to apparatus in respect of which the relations between the undertaker and National Grid are regulated by the provisions of Part 3 of the 1991 Act.

(b) 1989 c.29.

Apparatus of National Grid in streets subject to temporary stopping up or restriction

4. Notwithstanding the temporary prohibition or restriction under the powers of article 13 (temporary prohibition or restriction of use of streets), National Grid shall be at liberty at all times to take all necessary access across any such street and/or to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the prohibition or restriction was in that street.

Acquisition of land

5.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order the undertaker must not acquire any land interest or apparatus or override any easement or other interest of National Grid otherwise than by agreement (such agreement not to be unreasonably withheld).

(2) The undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Schedule relating to the relocation and/or removal of apparatus/including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid as of right or other use in relation to the apparatus then the provisions in this Schedule shall prevail.

Removal of apparatus

6.—(1) If, in the exercise of the agreement reached in accordance with paragraph 5 or in any other authorised manner, the undertaker acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Schedule and any right of National Grid to maintain that apparatus in that land shall not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) the undertaker shall, subject to sub-paragraph (3), afford to National Grid to their satisfaction (taking into account paragraph 7 sub-paragraph (1) below) the necessary facilities and rights for—

- (a) the construction of alternative apparatus in other land of the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to do so.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Schedule shall be constructed in such manner and in such line or situation as may be agreed between National Grid and the undertaker.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into

operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Schedule.

Facilities and rights for alternative apparatus

7.—(1) Where, in accordance with the provisions of this Schedule, the undertaker affords to National Grid facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights shall be granted upon such terms and conditions as may be agreed between the undertaker and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by National Grid.

(2) If the facilities and rights to be afforded by the undertaker and agreed with National Grid under paragraph 7 sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject in the matter shall be referred to arbitration and, the arbitrator shall make such provision for the payment of compensation by the undertaker to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case. In respect of the appointment of an arbitrator under this sub-paragraph (2), article 43 of the Order shall apply.

Retained apparatus: protection of National Grid as Gas Undertaker

8.—(1) Not less than 56 days before the commencement of any authorised development authorised by this Order that involves activities or works specified in National Grid's "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" that are within the proximities described therein to any apparatus the removal of which has not been required by the undertaker under paragraph 6 sub paragraph (2) or otherwise, the undertaker must submit to National Grid a plan.

(2) In relation to specified works, or any works that (wherever situated) impose any load directly upon any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) shall show—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant etc.;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;
- (f) intended maintenance regimes; and
- (g) details of any ground monitoring scheme (if required in accordance with National Grid's "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22").

(3) The undertaker must not commence any works to which sub-paragraph (2) applies until National Grid has given written approval of the plan so submitted.

(4) Any approval of National Grid required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (5) or (7);
- (b) must not be unreasonably withheld.

(5) In relation to a work to which sub-paragraphs (1) and (2) applies, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of

securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works executed under sub-paragraphs (1) or (2) shall be executed only in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub paragraph (2), as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (4), (5), (7) and/or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid shall be entitled to watch and inspect the execution of those works.

(7) Where National Grid requires protective works to be carried out either themselves or by the undertaker (whether of a temporary or permanent nature) such protective works shall be carried out to National Grid's satisfaction prior to the commencement of any authorised development (or any relevant part thereof) and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraph (1) or (2) (except in an emergency).

(8) If National Grid in accordance with sub-paragraph (5) or (7) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3 and 6 to 7 shall apply as if the removal of the apparatus had been required by the undertaker under paragraph 6 sub-paragraph (2).

(9) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(10) The undertaker shall not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and shall—

- (a) comply with sub-paragraph (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under the Order comply with National Grid's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" and the Health and Safety Executive's "HS(~G)47 Avoiding Danger from underground services".

Retained apparatus: protection of National Grid as Electricity Undertaker

9.—(1) Not less than 56 days before the commencement of any specified work that does not require the removal of apparatus under paragraph 6(2) (removal of apparatus) the undertaker must submit to National Grid a plan and seek from National Grid details of the apparatus belonging to or maintained by National Grid.

(2) The plan to be submitted under sub-paragraph (1) must show—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) shall be detailed including a method statement and describing in addition to the matters set out in sub-paragraph (2)—

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
 - (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
 - (c) details of load bearing capacities of trenches;
 - (d) details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
 - (e) a written management plan for high voltage hazard during construction and on-going maintenance of the cable route;
 - (f) written details of the operations and maintenance regime for the cable, including frequency and method of access;
 - (g) assessment of earth rise potential if reasonably required by National Grid's engineers;
 - (h) evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.
- (4) The undertaker must not commence any works to which sub-paragraphs (1), (2) or (3) apply until National Grid has given written approval of the plan so submitted,
- (5) Any approval of National Grid required under sub-paragraph (1), (2) or (3)—
- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (6)5 or (8);
 - (b) must not be unreasonably withheld.
- (6) In relation to a work to which sub-paragraphs (1), (2) or (3) apply, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its system against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.
- (7) Works executed under sub-paragraphs (1), (2) or (3) must be executed only in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraphs (2), (3) or (5), as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (5), (6), (8) and/or (9) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid shall be entitled to watch and inspect the execution of those works.
- (8) Where National Grid require any protective works to be carried out either themselves or by the undertaker (whether of a temporary or permanent nature) such protective works must be carried out to the undertakers' satisfaction prior to the commencement of any authorised development (or any relevant part thereof) and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraphs (1), (2), (3) or (5) (except in an emergency)
- (9) If National Grid in accordance with sub-paragraph (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 3 and 6 to 7 shall apply as if the removal of the apparatus had been required by the undertaker under paragraph 6(2).
- (10) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.
- (11) The undertaker shall not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and shall
- (a) comply with sub-paragraph (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and
 - (b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any works authorised under the Order comply with National Grid's policies for development near overhead lines ENA TA 43-8 and the Health and Safety Executive's guidance note 6 "Avoidance of Danger from Overhead Lines".

Expenses

10.—(1) Subject to the following provisions of this paragraph, the undertaker shall pay to National Grid on demand all charges, costs and expenses reasonably anticipated or incurred by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in this Schedule including without limitation—

- (a) any costs reasonably incurred or compensation properly paid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that National Grid elects to use compulsory purchase powers to acquire any necessary rights under paragraph 6 sub-paragraph (3) all costs incurred as a result of such action;
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works;
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Schedule.

(2) There must be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or in default of agreement settled by arbitration in accordance with article 43 (arbitration) of the Order to be necessary, then, if such placing involves cost in the construction of works under this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) shall be reduced by the amount of that excess save where it is not possible in the circumstances to obtain the existing type of operations, capacity, dimensions or place at the existing depth in which case full costs shall be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus shall not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole shall be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) shall, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works (including without limitation works carried out by the undertaker under this Schedule or any subsidence resulting from any of these works), any material damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, the undertaker shall—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party as aforesaid.

(2) The fact that any act or thing may have been done by National Grid on behalf of the undertaker or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid as a consequence of the authorised development or under its supervision shall not (unless sub-paragraph (3) applies) excuse the undertaker from liability under the provisions of sub-paragraph (1) unless National Grid fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not materially accord with the approved plan or as otherwise agreed between the undertaker and National Grid.

(3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any authorised development and/or any other works authorised by this Schedule carried out by National Grid as an assignee, transferee or lessee of the undertaker with the benefit of the Order pursuant to section 156 of the 2008 Act or under Article 9 of the Order subject to the proviso that once such works become apparatus (“new apparatus”), any works yet to be executed and not falling within this sub-section 3(b) shall be subject to the full terms of this Schedule including this paragraph 11 in respect of such new apparatus.

(4) National Grid must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made without first consulting the undertaker and considering their representations.

(5) National Grid must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 11 applies. If requested to do so by the undertaker, National Grid shall provide an explanation of how the claim has been minimised. The undertaker shall only be liable under this paragraph 11 for claims reasonably incurred by National Grid.

Enactments and agreements

12. Nothing in this Schedule shall affect the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

13. National Grid and the undertaker must each use their best endeavours to co-ordinate with the other party on the timing and method of execution of any works carried out under the Order or this Schedule in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of the other party's operations.

Access

14. If in consequence of the agreement reached in accordance with paragraph 5(1) or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker shall provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

15. Any difference or dispute arising between the undertaker and National Grid under this Schedule shall, unless otherwise agreed in writing between the undertaker and National Grid, be determined by arbitration in accordance with article 43 (arbitration) of the Order.

SCHEDULE 8

PROTECTIVE PROVISIONS

PART 3

FOR PROTECTION OF RAILWAY INTERESTS

1. The following provisions of this Schedule have effect, unless otherwise agreed in writing between the undertaker and Network Rail and, in the case of paragraph 15, any other person on whom rights or obligations are conferred by that paragraph.

2. In this Schedule—

"construction" includes execution, placing, alteration and reconstruction and "construct" and "constructed" have corresponding meanings;

"the engineer" means an engineer appointed by Network Rail for the purposes of this Order;

"network licence" means the network licence, as the same is amended from time to time, granted to Network Rail Infrastructure Limited by the Secretary of State in exercise of his powers under section 8 of the Railways Act 1993;

"Network Rail" means Network Rail Infrastructure Limited and any associated company of Network Rail Infrastructure Limited which holds property for railway purposes, and for the purpose of this definition "associated company" means any company which is (within the meaning of section 1159 of the Companies Act 2006¹ the holding company of Network Rail Infrastructure Limited, a subsidiary of Network Rail Infrastructure Limited or another subsidiary of the holding company of Network Rail Infrastructure Limited;

"plans" includes sections, designs, design data, software, drawings, specifications, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of railway property;

"protective works" means any works specified by the engineer under paragraph 5(4);

¹ 2006 c.46

"railway operational procedures" means procedures specified under any access agreement (as defined in the Railways Act 1993) or station lease;

"railway property" means any railway belonging to Network Rail and-

- (a) any station, land, works, apparatus and equipment belonging to Network Rail or connected with any such railway; and
- (b) any easement or other property interest held or used by Network Rail for or connected with the purposes of such railway or works, apparatus or equipment; and

"specified work" means so much of any of the authorised development as is or is to be situated upon, across, under, over or within 15 metres of, or may in any way adversely affect, railway property.

- 3. (1) Where under this Schedule Network Rail is required to give its consent or approval in respect of any matter, that consent or approval is subject to the condition that Network Rail complies with any relevant railway operational procedures and any obligations under its network licence or under statute.

(2) In so far as any specified work or the acquisition or use of railway property or rights over railway property is or may be subject to railway operational procedures, Network Rail must—
 - (a) co-operate with the undertaker with a view to avoiding undue delay and securing conformity as between any plans approved by the engineer and requirements emanating from those procedures; and
 - (b) use its reasonable endeavours to avoid any conflict arising between the application of those procedures and the proper implementation of the authorised development pursuant to this Order.

- 4. (1) The undertaker must not exercise the powers conferred by articles 13 (Permanent stopping up of streets and private means of access), 14 (Temporary stopping up and restriction of use of streets), 15 (Access to works), 17 (Discharge of water), 18 (Protective works to buildings), 19 (Authority to survey and investigate land), 20 (Compulsory acquisition of land), 23 (Compulsory acquisition of rights), 24 (Public rights of way), 25 (Private rights over land), 27 (Acquisition of subsoil or airspace only), 28 (Acquisition of part of certain properties), 29 (Rights under or over streets), 30 (Temporary use of land for carrying out the authorised development), 31 (Temporary use of land for maintaining the authorised development), 32

(Statutory undertakers), 36 (Felling or lopping of trees and removal of hedgerows) and 37 (Trees subject to tree preservation orders) or the powers conferred by section 11(3) of the 1965 Act (powers of entry) or the 1981 Act as applied by this Order in respect of any railway property unless the exercise of such powers is with the consent of Network Rail.

(2) The undertaker must not in the exercise of the powers conferred by this Order prevent pedestrian or vehicular access to any railway property, unless preventing such access is with the consent of Network Rail.

(3) The undertaker must not exercise the powers conferred by sections 271 or 272 of the 1990 Act or article 32 (Statutory undertakers), in relation to any right of access of Network Rail to railway property, but such right of access may be diverted with the consent of Network Rail.

(4) The undertaker must not under the powers of this Order acquire or use or acquire new rights over any railway property except with the consent of Network Rail.

(5) Where Network Rail is asked to give its consent pursuant to this paragraph, such consent must not be unreasonably withheld but may be given subject to reasonable conditions.

5. (1) The undertaker must before commencing construction of any specified work supply to Network Rail proper and sufficient plans of that work for the reasonable approval of the engineer and the specified work must not be commenced except in accordance with such plans as have been approved in writing by the engineer or settled by arbitration.

(2) The approval of the engineer under sub-paragraph (1) must not be unreasonably withheld, and if by the end of the period of 28 days beginning with the date on which such plans have been supplied to Network Rail the engineer has not intimated his disapproval of those plans and the grounds of his disapproval the undertaker may serve upon the engineer written notice requiring the engineer to intimate his approval or disapproval within a further period of 28 days beginning with the date upon which the engineer receives written notice from the undertaker. If by the expiry of the further 28 days the engineer has not intimated his approval or disapproval, the engineer be deemed to have approved the plans as submitted.

(3) If by the end of the period of 28 days beginning with the date on which written notice was served upon the engineer under sub-paragraph (2), Network Rail gives notice to the undertaker that Network Rail desires itself to construct any part of a specified work which in the opinion of the engineer will or may affect the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker desires such part of

the specified work to be constructed, Network Rail must construct it with all reasonable dispatch on behalf of and to the reasonable satisfaction of the undertaker in accordance with the plans approved or deemed to be approved or settled under this paragraph, and under the supervision (where appropriate and if given) of the undertaker.

(4) When signifying his approval of the plans the engineer may specify any protective works (whether temporary or permanent) which in the engineer's opinion should be carried out before the commencement of the construction of a specified work to ensure the safety or stability of railway property or the continuation of safe and efficient operation of the railways of Network Rail or the services of operators using the same (including any relocation decommissioning and removal of works, apparatus and equipment necessitated by a specified work and the comfort and safety of passengers who may be affected by the specified works), and such protective works as may be reasonably necessary for those purposes must be constructed by Network Rail or by the undertaker, if Network Rail so desires, and such protective works must be carried out at the expense of the undertaker in either case with all reasonable dispatch and the undertaker must not commence the construction of the specified works until the engineer has notified the undertaker that the protective works have been completed to his reasonable satisfaction.

6. (1) Any specified work and any protective works to be constructed by virtue of paragraph 5(4) must, when commenced, be constructed—

(a) with all reasonable dispatch in accordance with the plans approved or deemed to have been approved or settled under paragraph 5;

(b) under the supervision (where appropriate and if given) and to the reasonable satisfaction of the engineer;

(c) in such manner as to cause as little damage as is possible to railway property; and

(d) so far as is reasonably practicable, so as not to interfere with or obstruct the free, uninterrupted and safe use of any railway of Network Rail or the traffic on it and the use by passengers of railway property.

(2) If any damage to railway property or any such interference or obstruction is caused by the carrying out of, or in consequence of the construction of a specified work or a protective work, the undertaker must, regardless of any such approval, make good such damage and must pay to Network Rail all reasonable expenses to which Network Rail may be put and

compensation for any loss which it may sustain by reason of any such damage, interference or obstruction.

(3) Nothing in this Schedule imposes any liability on the undertaker with respect to any damage, costs, expenses or loss attributable to the negligence of Network Rail or its servants, contractors or agents or any liability on Network Rail with respect of any damage, costs, expenses or loss attributable to the negligence of the undertaker or its servants, contractors or agents.

7. The undertaker must-

(a) at all times afford reasonable facilities to the engineer for access to a specified work or a protective work during its construction; and

(b) supply the engineer with all such information as the engineer may reasonably require with regard to a specified work or a protective work or the method of constructing it.

8. Network Rail must at all times afford reasonable facilities to the undertaker and its agents for access to any works carried out by Network Rail under this Schedule during their construction and must supply the undertaker with such information as it may reasonably require with regard to such works or the method of constructing them.

9. (1) If any permanent or temporary alterations or additions to railway property, are reasonably necessary in consequence of the construction of a specified work or a protective work, or during a period of 24 months after the completion of that work in order to ensure the safety of railway property or the continued safe operation of the railway of Network Rail, such alterations and additions may be carried out by Network Rail and if Network Rail gives to the undertaker reasonable notice of its intention to carry out such alterations or additions (which must be specified in the notice), the undertaker must pay to Network Rail the reasonable cost of those alterations or additions including, in respect of any such alterations and additions as are to be permanent, a capitalised sum representing the increase of the costs which may be expected to be reasonably incurred by Network Rail in maintaining, working and, when necessary, renewing any such alterations or additions.

(2) If during the construction of a specified work or a protective work by the undertaker, Network Rail gives notice to the undertaker that Network Rail desires itself to construct that part of the specified work or the protective work which in the opinion of the engineer is endangering the stability of railway property or the safe operation of traffic on the railways of

Network Rail then, if the undertaker decides that part of the specified work or the protective work is to be constructed, Network Rail must assume construction of that part of the specified work or the protective work and the undertaker must, regardless of any such approval of a specified work or a protective work under paragraph 5(3), pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may suffer by reason of the execution by Network Rail of that specified work or protective work.

(3) The engineer must, in respect of the capitalised sums referred to in this paragraph and paragraph 10(a) provide such details of the formula by which those sums have been calculated as the undertaker may reasonably require.

(4) If the cost of maintaining, working or renewing railway property is reduced in consequence of any such alterations or additions a capitalised sum representing such saving must be set off against any sum payable by the undertaker to Network Rail under this paragraph.

10. The undertaker must repay to Network Rail all reasonable fees, costs, charges and expenses reasonably incurred by Network Rail—

(a) in constructing any part of a specified work on behalf of the undertaker as provided by paragraph 5(3) or in constructing any protective works under the provisions of paragraph 5(4) including, in respect of any permanent protective works, a capitalised sum representing the cost of maintaining and renewing those works;

(b) in respect of the approval by the engineer of plans submitted by the undertaker and the supervision by the engineer of the construction of a specified work or a protective work;

(c) in respect of the employment or procurement of the services of any inspectors, signallers, watchkeepers and other persons whom it is reasonably necessary to appoint for inspecting, signalling, watching and lighting railway property and for preventing, so far as may be reasonably practicable, interference, obstruction, danger or accident arising from the construction or failure of a specified work or a protective work;

(d) in respect of any special traffic working resulting from any speed restrictions which may in the opinion of the engineer, require to be imposed by reason or in consequence of the construction or failure of a specified work or a protective work or from the substitution of diversion of services which may be reasonably necessary for the same reason; and

(e) in respect of any additional temporary lighting of railway property in the vicinity of the specified works, being lighting made reasonably necessary by reason or in consequence of the construction or failure of a specified work or a protective work.

11. (1) In this paragraph-

“EMI” means, subject to sub-paragraph (2), electromagnetic interference with Network Rail apparatus generated by the operation of the authorised development (including the operation of tramcars using the tramway comprised in the works) where such interference is of a level which adversely affects the safe operation of Network Rail’s apparatus; and

“Network Rail’s apparatus” means any lines, circuits, wires, apparatus or equipment (whether or not modified or installed as part of the authorised development) which are owned or used by Network Rail for the purpose of transmitting or receiving electrical energy or of radio, terlegraphic, telephonic, electric, electronic or other like means of signaling or other communications.

(2) This paragraph applies to EMI only to the extent that such EMI is not attributable to any change to Network Rail’s apparatus carried out after approval of plans under paragraph 5(1) for the relevant part of the authorised development giving rise to EMI (unless the undertaker has been given notice in writing before the approval of those plans of the intention to make such change).

(3) Subject to sub-paragraph (5), the undertaker must in the design and construction of the authorised development take all measures necessary to prevent EMI and must establish with Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the undertaker’s compliance with sub-paragraph (3)-

(a) the undertaker must consult with Network Rail as early as reasonably practicable to identify all Network Rail’s apparatus which may be at risk of EMI, and thereafter must continue to consult with Network Rail (both before and after formal submission of plans under paragraph 5(1)) in order to identify all potential causes of EMI and the measures required to eliminate them;

(b) Network Rail must make available to the undertaker all information in the possession of Network Rail reasonably requested by the undertaker in respect of Network Rail’s apparatus identified pursuant to sub-paragraph (a); and

(c) Network Rail must allow the undertaker reasonable facilities for the inspection of Network Rail's apparatus identified pursuant to sub-paragraph (a).

(5) In any case where it is established that EMI can only reasonably be prevented by modifications to Network Rail's apparatus, Network Rail must not withhold its consent unreasonably to modifications of Network Rail's apparatus, but the means of prevention and the method of their execution must be selected in the reasonable discretion of Network Rail, and in relation to such modifications paragraph 5(1) have effect subject to this sub-paragraph.

(6) If at any time prior to the completion of the authorised development and regardless of any measures adopted pursuant to sub-paragraph (3), the testing or commissioning of the authorised development causes EMI then the undertaker must immediately upon receipt of notification by Network Rail of such EMI either in writing or communicated orally (such oral communication to be confirmed in writing as soon as reasonably practicable after it has been issued) cease to use (or procure the cessation of use of) the undertaker's apparatus causing such EMI until all measures necessary have been taken to remedy such EMI by way of modification to the source of such EMI or (in the circumstances, and subject to the consent, specified in sub-paragraph (5)) to Network Rail's apparatus.

(7) In the event of EMI having occurred –

(a) the undertaker must afford reasonable facilities to Network Rail for access to the undertaker's apparatus in the investigation of such EMI;

(b) Network Rail must afford reasonable facilities to the undertaker for access to Network Rail's apparatus in the investigation of such EMI; and

(c) Network Rail must make available to the undertaker any additional material information in its possession reasonably requested by the undertaker in respect of Network Rail's apparatus or such EMI.

(8) Where Network Rail approves modifications to Network Rail's apparatus pursuant to sub-paragraphs (5) or (6) –

(a) Network Rail must allow the undertaker reasonable facilities for the inspection of the relevant part of Network Rail's apparatus;

(b) any modifications to Network Rail's apparatus approved pursuant to those sub-paragraphs must be carried out and completed by the undertaker in accordance with paragraph 6.

(9) To the extent that it would not otherwise do so, the indemnity in paragraph 15(1) applies to the costs and expenses reasonably incurred or losses suffered by Network Rail through the implementation of the provisions of this paragraph (including costs incurred in connection with the consideration of proposals, approval of plans, supervision and inspection of works and facilitating access to Network Rail's apparatus) or in consequence of any EMI to which sub-paragraph (6) applies.

(10) For the purpose of paragraph 10(a) any modifications to Network Rail's apparatus under this paragraph are deemed to be protective works referred to in that paragraph.

(11) In relation to any dispute arising under this paragraph the reference in article 43 (Arbitration) to the Institution of Civil Engineers is to be read as a reference to the Institution of Engineering and Technology.

12. If at any time after the completion of a specified work or a protective work, not being a work vested in Network Rail, Network Rail gives notice to the undertaker informing it that the state of maintenance of any part of the specified work or the protective work appears to be such as adversely affects the operation of railway property, the undertaker must, on receipt of such notice, take such steps as may be reasonably necessary to put that specified work or that protective work in such state of maintenance as not adversely to affect railway property.
13. The undertaker must not provide any illumination or illuminated sign or signal on or in connection with a specified work or a protective work in the vicinity of any railway belonging to Network Rail unless it has first consulted Network Rail and it must comply with Network Rail's reasonable requirements for preventing confusion between such illumination or illuminated sign or signal and any railway signal or other light used for controlling, directing or securing the safety of traffic on the railway.
14. Any additional expenses which Network Rail may reasonably incur in altering, reconstructing or maintaining railway property under any powers existing at the making of this Order by reason of the existence of a specified work or a protective work must, provided that 56 days' previous notice of the commencement of such alteration, reconstruction or maintenance has been given to the undertaker, be repaid by the undertaker to Network Rail.
15. (1) The undertaker must pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this Schedule which may be occasioned to or reasonably incurred by Network Rail—

(a) by reason of the construction or maintenance of a specified work or a protective work or the failure thereof or

(b) by reason of any act or omission of the undertaker or of any person in its employ or of its contractors or others whilst engaged upon a specified work or a protective work;

and the undertaker must indemnify and keep indemnified Network Rail from and against all claims and demands arising out of or in connection with a specified work or a protective work or any such failure, act or omission: and the fact that any act or thing may have been done by Network Rail on behalf of the undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under his supervision will not (if it was done without negligence on the part of Network Rail or of any person in its employ or of its contractors or agents) excuse the undertaker from any liability under the provisions of this sub-paragraph.

(2) Network Rail must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of such a claim or demand is to be made without the prior consent of the undertaker.

(3) The sums payable by the undertaker under sub-paragraph (1) may include a sum equivalent to the relevant costs.

(4) Subject to the terms of any agreement between Network Rail and a train operator regarding the timing or method of payment of the relevant costs in respect of that train operator, Network Rail must promptly pay to each train operator the amount of any sums which Network Rail receives under sub-paragraph (3) which relates to the relevant costs of that train operator.

(5) The obligation under sub-paragraph (3) to pay Network Rail the relevant costs will, in the event of default, be enforceable directly by any train operator concerned to the extent that such sums would be payable to that operator pursuant to sub-paragraph (4).

(6) In this paragraph—

"the relevant costs" means the costs, direct losses and expenses (including loss of revenue) reasonably incurred by each train operator as a consequence of any restriction of the use of Network Rail's railway network as a result of the construction, maintenance or failure of a specified work or a protective work or any such act or omission as mentioned in subparagraph (1); and

"train operator" means any person who is authorised to act as the operator of a train by a licence under section 8 of the Railways Act 1993.

16. Network Rail must, on receipt of a request from the undertaker, from time to time provide the undertaker free of charge with written estimates of the costs, charges, expenses and other liabilities for which the undertaker is or will become liable under this Schedule (including the amount of the relevant costs mentioned in paragraph 15) and with such information as may reasonably enable the undertaker to assess the reasonableness of any such estimate or claim made or to be made pursuant to this Schedule (including any claim relating to those relevant costs).
17. In the assessment of any sums payable to Network Rail under this Schedule there must not be taken into account any increase in the sums claimed that is attributable to any action taken by or any agreement entered into by Network Rail if that action or agreement was not reasonably necessary and was taken or entered into with a view to obtaining the payment of those sums by the undertaker under this Schedule or increasing the sums so payable.
18. The undertaker and Network Rail may, subject in the case of Network Rail to compliance with the terms of its network licence, enter into, and carry into effect, agreements for the transfer to the undertaker of—
 - (a) any railway property shown on the works plans and the land plans and described in the book of reference;
 - (b) any lands, works or other property held in connection with any such railway property; and
 - (c) any rights and obligations (whether or not statutory) of Network Rail relating to any railway property or any lands, works or other property referred to in this paragraph.
19. Nothing in this Order, or in any enactment incorporated with or applied by this Order, prejudices or affects the operation of Part I of the Railways Act 1993.
20. The undertaker must give written notice to Network Rail if any application is proposed to be made by the undertaker for the Secretary of State's consent, under article 9 (Consent to transfer benefit of Order) of this Order and any such notice must be given no later than 28 days before any such application is made and must describe or give (as appropriate)—
 - (a) the nature of the application to be made;

(b) the extent of the geographical area to which the application relates; and

(c) the name and address of the person acting for the Secretary of State to whom the application is to be made.

- 20 The undertaker must no later than 28 days from the date that the documents submitted to and certified by the Secretary of State in accordance with article 41 (Certification of Plans) are certified by the Secretary of State, provide a set of those documents to Network Rail in the form of a computer disc with read only memory.